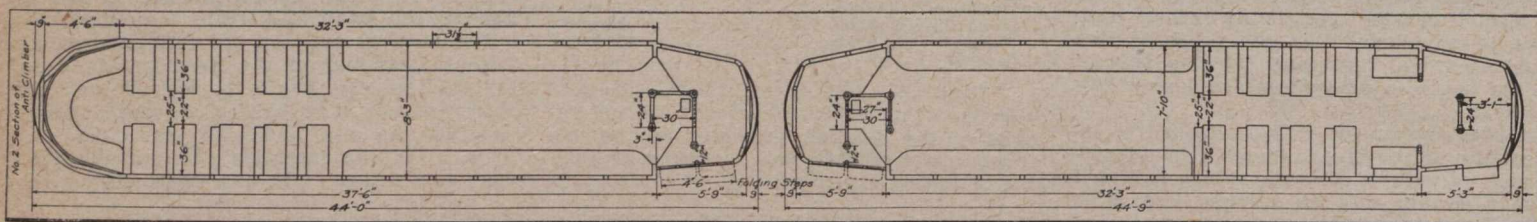


Trailer Operation by Montreal Tramways Company.

Traffic on St. Catherine St., the Montreal Tramways Co.'s main cross town line, has become so great that it was recently realized that to increase its density by the addition of more individual units would only increase the congestion and not relieve the situation. The St. Catherine St. cars, through the main section of the district, operate on an average headway of a minute and a half, with additional radiating lines using the tracks through a section of the more congested district. The traffic on this through line is such that at all hours of the day the traffic density is very uniform, which has been an important factor in evolving a solution of the problem of providing additional accommodation for the overtaxed line. Trailer operation has been used with success in other cities in Canada, principally Toronto, but the system adopted in the latter employs trailer cars only during the rush hours, the trailers being attached at the car shed just prior to the period of maximum traffic, and removed immediately after. This has the objection of congesting traffic at the car shed.

Consideration of the conditions existing on St. Catherine St. led the General Manager, J. E. Hutcheson, to the conclusion that not only would intermittent trailer operation not be satisfactory, but the uniformity of the traffic density during all hours of the day would make advisable the use of trailers from early morning until late at night, leaving them in operation all day.



Motor and Trailer Car for Operation by Montreal Tramways Company.

The congestion at the car sheds, which reaches its maximum during the rush hours, will be relieved to this extent. The steady use of trailers will eliminate one of the principal objections to trailer operation.

In adopting trailer operation, it was decided to have the trailer design follow that of the motor car as closely as possible, resulting in the combination shown herewith. The distinctive type of car most recently developed in Montreal was described in detail in Canadian Railway and Marine World for Mar., 1912. This is the model practically followed in all subsequent designs, there being more recent changes that do not involve any radical departure in the car design such as occurred between that design and its predecessors. A small order of cars delivered to the company early this year departed from the fundamental design by using a monitor instead of a decked roof. This has been followed in these new cars, and forms one of principal points of difference in design.

In the original cars of this design there were 10 cross seats, arranged along a central aisle, near the centre of the car. This has been found to cramp the interior capacity of the car by bottling all the standing passengers in the rear end during the rush hours. In consequence, many of these cars had the cross seats rearranged so as to give a very short longitudinal seat at the forward end of the car, with long seats, extending nearly half the length of the car at the rear end, increasing the useable standing room materially. This change has been retained in motor trailer cars.

A novel departure in the design of these cars has been made in having motor and trailer of practically identical design, the only difference between the two being in the vestibule design. In both the body length is 32½ ft., with the overall length of the motor car 44¾ ft., and of the trailer 44 ft. The width over sills of both is 8¾ ft., and overall 8 ft. 4¼ ins. The height to car floor from rail is 36½ ins., height overall, 11 ft. 2½ ins. The trucks in both are at 20 ft. 8 ins. centres.

Reference to the accompanying illustration will show that the motor and trailer are of almost identically similar arrangements, the trailer being the reverse of the motor. The reason for this is apparent. For centralizing the control, it was desirable to have the entrances to both cars as close together as practicable, and this has been secured in this design by having the entrance at the rear of the motor and at the front end of the trailer, both entrances within view of the forward conductor.

The motorman's platform of the new cars is very nearly the same as formerly, with the exception that instead of the partition separating him from the back portion of the front vestibule, in the absence of the front bulkhead dispensed with in the former design, there is only a guard rail separating his section from the remainder of the front vestibule. The front door is of the folding type, controlled by the motorman as in the former cars.

The rear vestibule is shorter by about 2 ft. than formerly, largely made possible by the elimination of the back bulkhead. This rear vestibule of the motor is similar to the front vestibule of the trailer. The conductor's railing is similarly located to the former design, but in order to have the interior of the car visible to the conductor from his stand, in order to secure the full benefit of the bulkhead removal, the floor of the vestibule at the conductor's stand is raised to that of the car body from the 28 in. level of the vestibule. The shortening of the vestibule has necessitated the removal of the rear rail behind which smoking passengers were allowed to stand.

The conductor's vestibules of both motor and trailer have double folding doors, one each for entrance and exit respectively, the former being that nearest the car end. These double doors are controlled from swing handles in the rail in front of his stand. The steps for the vestibule fold and operate in unison with the car doors, operated by the conductor.

The front end of the trailer is the only entry and exit end, the rear end being blind. The longitudinal seats in the front end of the trailer are slightly longer than in the motor, setting the cross seats back in the car to the rear of the body. The rear vestibule end is on a level with that of the car body and is shorter than at the other end. This end is rounded off, and contains a circular seat, giving an increased seating capacity over the motor by that amount.

In the preliminary description of these cars in the last issue of Canadian Railway and

Marine World, it was explained that while the underframing of the cars will be steel, the bodies will be of wood construction, sheathed in steel. The interior trim will be cherry. Among the special equipment are the following:—Cables, conduits and junction boxes, gears and pinions, and motors, Westinghouse; couplers, Tomlinson; destination signs, Keystone. Delivery of the 25 motor cars and 25 trailers included in the order is expected in December. We are indebted to E. Blair, Superintendent of Rolling Stock, M.T. Co., for the information on which this article is based.

Double Deck Car Barn for British Columbia Electric Railway.

The Vancouver City Council, Oct. 7, authorized the drawing up of an agreement with the B. C. E. R. Co. relative to the building of a double deck car barn on Quebec St., between 13th and 14th Avenues. The lower deck will have an entrance from Main St., and the entrance to the upper deck will be from Quebec Ave. The estimated cost of the building is \$300,000.

Referring to the project the Vancouver World says: The company has two barns of a temporary type on the north half of the block. The new car barn will take up the entire south half and be of the double deck or two story type, entrance to the lower floor being made from Main St., and to the upper story from Quebec St., and to the possible by reason of the difference in grades of the two streets. The new barn will

have a frontage of 132 ft. on Main and Quebec Sts., and extend along Fourteenth Ave. for over 300 ft. On Main St. the height will upper story from Quebec St., this being The estimated cost of over \$300,000 for an open structure of this size may seem somewhat large, but the company's engineers state that it is intended to have the building of a permanent and thoroughly fireproof type, the reinforced concrete type of construction being probably followed. The barn will be 45 feet back from the property line on either street, thus making it possible for a considerable portion of the entrance trackage to be located on the company's property. The elevations on the two streets will be of an ornamental character.

It is expected that work on the barn will be started as soon as the agreement is signed.

Traffic Regulation in Halifax.

The Halifax, N.S., City Council has added the following regulation to the city ordinance relating to streets:

"OVERTAKING TRAM CARS."

"56A. The driver of every vehicle, including a motor vehicle, coming up with or overtaking any tram car, and intending to pass on the left side thereof shall, if the tram car is at a standstill or about to come to a standstill or stop, bring his vehicle to a standstill in the rear of said tram car until after the tram car is again in motion."