



*Speed and economy are the two main features of the LRC. The pre-produc-*

*tion locomotive and coach (above) was photographed recently during tests.*

will compete with air travel when all factors of comfort, convenience, time downtown-to-downtown and frequency of service, are considered.

Because of its light weight and compact, streamlined contour, the train accelerates rapidly and maintains speeds in the 120-mph range with a comparatively small outlay of power.

#### Comfort round the curves

Powered banking, the most significant element of the train's engineering, is built into the suspension system to take passengers comfortably round curves at speeds of some 35 to 40 percent faster than is possible with conventional equipment. The hydraulic system permits tilting of coaches as much as 10 degrees from the perpendicular and is activated by sensors that nullify the centrifugal forces which push passengers toward the side of the train. The LRC system holds lateral pressures at a painless 0.05g or less, leaving passengers upright and relaxed in their seats, as in a banking airplane, while the train averages speeds of more than 100 mph between cities.

The application of powered banking for rapid negotiation of curves enables the LRC to yield high average speed and optimum comfort with low power requirements. Members of the LRC joint venture are confident that by ex-

plotting this advantage and the advantages gained by minimizing weight and using economical diesel electric power, they can produce rapid, comfortable transportation at lower than competitive operating costs.

#### Appearance

The coach, which has large windows, has a low, streamlined appearance. The skin-like structure of aluminum, 84 feet long, is two feet lower than a conventional train.

Each coach has a vestibule at one end, and a diaphragm closure between cars makes it possible to leave the end doors open to allow the unimpeded movement of passengers through the train when it is moving. A one-level floor through the length of each coach and the narrow columns between the windows are two features that allow maximum variety in the density and placement of seating.

#### Soundproofing factor

Special attention was given to the problem of soundproofing by LRC engineers, who used the services of Cominco and Montreal universities and the sound chamber of the National Research Council in Ottawa, in its development. For its effectiveness it depends partly on cushioning, partly on insulation.

There are no direct metal-to-metal lines into the interior of the LRC coach. The floors rest on neoprene pads. Sound insulating material and a vapour barrier surround the entire interior. Over the trucks, always a major source of road noise and vibration, there is a shield of sheet lead which was found after experiment to be one of the most effective damping agents.

Jacques Guillon Designers, Inc. of Montreal, were commissioned to collaborate with Alcan and MLW to develop the exterior design of the train and interior *décor* of the prototype coach.

#### Pearson memoirs honoured

*Mike: The Memoirs of the Right Honourable Lester B. Pearson* (volumes 1 and 2), have won the Albert B. Corey award for the best work in Canada/United States relations.

The Corey prize is given jointly by the Canadian Historical Association and the American Historical Association every two years. The books, which were published during 1972 and 1973 by the University of Toronto Press, were cited by the judges for their distinguished contribution to the understanding of Canada/U.S. relations in which the late Mr. Pearson, as ambassador, Secretary of State for External Affairs and Canadian prime minister, "had played such a notable personal role".

The prize was presented to Mrs. Pearson in Ottawa by Professor Robert Bothwell, Canadian chairman of the joint committee of both associations. In accepting the award, Mrs. Pearson remarked that her husband would have been "immensely pleased" both because of the subject of the prize and because he had always considered himself an historian — his first profession.

Representing the Canadian Historical Association were its past president Professor Sydney Wise of Carleton University, vice-president Professor Jacques Monet of Ottawa University and Professor David Farr, also of Carleton, one of the judges. John Munro and Alex Inglis, research associates and editors of the volumes, who were cited for their valuable contribution to the memoirs, were also present, as were other members of the Pearson family.