

CANADIAN RAILROAD HISTORICAL ASSOCIATION, INC.OCTOBER 1950.

The regular monthly meeting of the Association will be held in Room 153 of the Queen's Hotel on Thursday, October 19, 1950, at 8.00 P.M.

The change in meeting night has been made in order that members who are interested in photography can attend a lecture entitled "Better Color Photography" by Mr. A.C. Shelton of "Ansco" Binghamton, N.Y. on Wednesday, October 11th at 8.15 P.M. in the Montreal High School Auditorium, 3449 University Street. The lecture is sponsored by the Montreal Camera Club and is open to all persons interested.

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On October 1st the Association held a railroad excursion from Montreal to Huberdeau, Que. to commemorate the 25th anniversary of the famous Montreal to Vancouver run of Canadian National Railways' diesel-electric rail car #15820 in 67 hours. The excursion was very successful with the train filled to capacity. Diesel-electric rail car #15837 and coach 3409 made up the consist. The train left Central Station at 8.15 A.M., standard time, and travelled to Val Royal via Turcot Yards and the Jacques Cartier Subdivision (freight service only) rather than through the Mount Royal tunnel. Numerous stops at scenic places were made on the way up to Huberdeau for the benefit of photographers, as Autumn colors of the trees made the Laurentian scenery a perfect setting for the trip. An hour and a half was spent at Huberdeau before making the return trip. Many of the participants wondered whether #15837 would make the stiff grades on this line, but the rail car proved itself by doing an excellent job. Guests of the Association on the trip were - from the C.N.R. - Mr. E.J. Feasey, General Supervisor of Diesel Power; Mr. O. Boivin, General Superintendent of the District; Mr. J. A. Nobert, Assistant Superintendent, Mr. J.T. Moore, District Passenger Agent and Mr. I. Sylvestre, now of Montreal Locomotive Works, who made the trans-continental trip on #15820.

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Diesel-Electric Road Switchers to replace  
electric and steam trains between Montreal,  
Granby and Waterloo

The C.N. Railways has placed an order for 18 diesel-electric locomotives with Canadian Locomotive Works at Kingston, Ont. They will be 1000 hp Road Switchers of the opposed-piston, Fairbanks-Morse design. Three of these locomotives will replace Montreal & Southern Counties Railway electric trains between Montreal and Granby, and Canadian National Railways' steam trains between Montreal, Granby and Waterloo, operating via St. Johns and Farnham, Que. The balance of the locomotives will be placed in service between Matapedia and Gaspé.

Delivery of the locomotives is expected early next year. The three engines assigned to the M.& S.C. Railway will run out of Central Station to M.& S.C. Junction thence via M.& S.C. to Granby and C.N.R. to Waterloo. Electrification will later be removed between Marieville and Granby and M.& S.C. electric cars will only continue to operate as far as Marieville and St. Angele. It is expected service will be speeded up by 30 minutes.

"CENTRAL VERMONT TO CHRISTEN LOCOMOTIVE AFTER ST.ALBANS"

Reverting to a practice prevalent in the early days of railroading, the Central Vermont Railway will christen one of its fleet and powerful mountain type passenger locomotives the "City of St. Albans" as a highlight of the railway centennial day celebration in St. Albans Wednesday, October 18. Locomotive No. 601, which is now in the local CV shops for overhaul and painting, has been selected as the engine which will be the first CV locomotive to carry a name in more than three score years.

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THE DEVELOPMENT OF THE  
DIESEL-ELECTRIC RAIL CAR

The Canadian National Railways, one of the world's largest systems, had its beginning in Canada's first steam railway, the Champlain & Saint Lawrence Railroad, which started operation in 1836 as a portage line on the water route between Montreal and New York. This, with the Montreal and Lachine line opened eleven years later, and several other early railways, became part of the Grand Trunk Railway of Canada, which was incorporated in 1852.

During the year 1918, the Canadian Northern system, the Canadian Government Railways and the Grand Trunk Pacific Railway were amalgamated under a single management, and the unified lines were given the title of Canadian National Railways. In 1923, the Grand Trunk Railway was added and the system fused into one operating unit. Many of the lines of the new Canadian National System lay in sparsely-settled country and a great deal of the motive power was in need of replacement. Consequently, attention was focussed on obtaining new power which could be operated economically in light-traffic territory and provide fairly frequent service on branch lines. Storage battery cars, gasoline and gas-electric cars were developed and did their share to cut down costs, but all of these had serious faults - they were but part-way measures.

In the autumn of 1923, the late C.E. Brooks, who was then Superintendent of Motive Power, made an extensive tour of America and Europe to investigate the latest railway equipment developments and to ascertain what type of power would best suit the requirements of service on the National system. He found little on other railway lines that could be adopted profitably by the Canadian National; on his way home from Sweden, however, he stopped over in Glasgow, Scotland, and paid a visit to the plant of the William Beardmore Company where several airship motors were on test. Mr. Brooks saw that these engines might be adapted to railway use and his opinion was shared by the chief designers of the manufacturing company. Arrangements were therefore made whereby the Beardmore Company would supply a number of modified power plants for experimental railway purposes in Canada.

Mr. Brooks returned to this country and orders were placed with the Ottawa Car Manufacturing Company for nine special motorcoach bodies which would be equipped with the Beardmore diesel engines. Canadian Westinghouse supplied generators and traction motors to transfer the power of the diesels to the driving axles. The completed units were assembled at the Pointe St. Charles Shops of the Canadian National Railways during the early part of 1925.

Thus was born the diesel-electric Rail Car.

By the month of August, two units were ready for tests, #15819, a single self-propelled coach, and #15817, an articulated unit. These cars were put through severe tests on various runs in Eastern Canada - the large one operating out of the Tunnel Terminal in local service between Montreal and Ottawa over the now-abandoned L'Original Subdivision. The smaller car successfully completed runs in the Toronto area, and returning to Montreal, made the 334-mile journey at a total ruel cost of but \$3.98.

The newspaper and magazine articles of the day were enthusiastic about the new means of motive power, but it is doubtful whether many who saw the cars realized the full significance that they held for the future of American railroading. The late R. L. Fairbairn, manager of the Passenger Service Bureau of the C.N.R., who was responsible for the assignment of the cars, characterized them as the "outstanding invention of the century in the rail transportation industry" and pointed out that they were an achievement for British and Canadian engineers. That this achievement was something to be proud of was proved before many weeks had passed.

Diesel-electric unit cars of this new and promising design were required for service on short, local runs from terminals all across the country, and when No. 15820 was completed, it was assigned to the British Columbia District on the Pacific Coast. Thus an opportunity was presented to make the supreme test - by operating the car under its own power across the continent to Vancouver. The record-breaking dash of the famous 15820 is now history - 2937 miles in 67 hours with the engine operating non-stop throughout the journey.

The route of the trip was over the lines presently followed by the C.N.R. Continental Limited, probably the first through train to operate over this route. Prior to this time, trains #1 and #2 were scheduled over the Temiskaming and Northern Ontario Railway (now Ontario Northland Ray.) from North Bay to Cochrane, but Extra 15820 followed the Hornepayne Subdivision to Longlac, and travelled across the newly-completed Longlac cut-off to Nakina. The interior of the car was slightly changed for the convenience of the officers and crew who made the journey, the seats in the main passenger compartment were altered to provide sleeping and eating facilities, and additional fuel-oil storage installed in the baggage section. The trip was marked by a number of events, including a collision with a moose and a broken brake-pipe. There was an almost-catastrophe near Boston Bar, B.C. when the unit came upon a sectionman on a long trestle, hidden from view by a sharp curve. Tragedy drew very near as the emergency brake was thrown on, but fortunately receded again as the sectionman jumped clear of his speeder. The pilot of the diesel cut through the speeder like a knife, but the man was safe and waved the car on its way. Notwithstanding these happenings, the one-coach train arrived in Vancouver ahead of schedule after only sixty-seven hours running from Montreal, breaking the world's records for endurance, economy and sustained speed over such a distance.

We all know now the events that followed the success of 15820 and the other diesel-electric cars - how from these, America's first diesel road locomotive, C.N.R. #9000 was designed, tested and proved, and how subsequently the railways of America enthusiastically adopted the diesel-electric principle. Mr. S.J. Hungerford, Vice-President of Operations, later Chairman and President of the National System, and now retired, can therefore be quoted as prophetic when he commented on 15820's journey and declared "It is possible that a single locomotive could handle trains clear across the continent without being relieved....such locomotives would render it unnecessary to maintain water stations and would greatly reduce the need of terminal facilities... and would eliminate such vexations as smoke and cinders. Taken all together, the indications point to a rapid development in the use of oil-electric motive power on the railroads of the continent".

