

## **HISTORICAL SKETCH OF FAIRBANKS-MORSE LOCOMOTIVES CP 4104 AND CP 7009**

Locomotive 4104 is one of the last representative locomotives designed in the streamlined style first made popular in the streamlined art deco era which began in the 1930's.

Locomotives of this sleek looking style were popular at the front end of most primer passenger trains that used diesel electric locomotives and this style was first introduced to Canadian passenger trains in 1948.

4104 was built for the Canadian Pacific Railway in 1954 at the Canadian Locomotive Company works in Kingston, Ontario as a "Consolidation" line 'A'-unit locomotive and was one of the last of the Fairbank Morse model CPA-16-4 built. This class were originally used to replace steam locomotives in passenger train service on the CPR's southern mainline between Medicine Hat, Alberta and Vancouver, BC. Built as a dual purpose (passenger and freight) locomotive, it and companion 'B'-units were used in this service for only four years when this locomotive and its sisters were down graded to general freight service as the conventional passenger trains on the southern route were re-equipped with self-propelled rail diesel car "*Dayliners*".

Assigned to maintenance points in Calgary, Alberta and Nelson, British Columbia this locomotive and others of its class would work in a circular cycle traveling via Lethbridge, Calgary, Banff, Revelstoke, Kamloops and Vancouver as well as the southern BC route via Nelson. Periodically, until the mid 1960's, 4104 would work on Canadian Pacific's name train "*Dominion*" particularly during the summer months when extra passenger trains were required for the heavy tourist season through Banff and Lake Louise.

With the last heavy summer season passing in 1965 the "*Dominion*" was discontinued and 4104 was assigned to freight service only along with the utilitarian hood unit models of the "H" line design used specifically for that type of service.

Locomotive 7009 is representative of the "H" line model of locomotives series built in the 1950's and set the standard of design for locomotives in general freight service on the two major Canadian railways.

7009 is a model H-16-66, nick named by its manufacture in Beloit, Wisconsin USA as a "Baby Trainmaster". On Canadian Pacific two "H" line models of Fairbanks Morse design built in Kingston, Ontario were popular and well used

mostly in western Canada. A small number of these hood unit locomotives were fitted up to assist in passenger train service as well, but this was usually secondary in their purpose on the railway.

The smaller H-16-44 series of locomotive and larger H-24-66 "Trainmaster" model of locomotives were the work horses of the southern BC route and to some degree on the main line west of Calgary until the summer of 1975 when a down turn in the economy and rail traffic allowed the railway to put these first generation diesel electric locomotives out to pasture along with the steam locomotives they had replaced. The second generation of diesel electrics had been introduced a decade earlier and the prime mover or power unit on the Fairbanks Morse locomotives was now considered obsolete in the railroad environment.

The diesel engine of these locomotives was unique in that they were of an opposed piston design first used in submarines and tug boats during the Second World War. Adapted to railway service the design proved too complicated to the railroad maintenance standards and none were produced for the railways after 1960.

Both locomotives are painted in the popular Canadian Pacific Tuscan and grey paint scheme which in their day matched the standard colour of the passenger trains traveling through Banff in the 1940's, 1950's and 1960's. In fact the Tuscan Red colour on Canadian Pacific passenger trains was first used in 1907 on the Southern BC route until 1914 and introduced as the standard on all CPR passenger rolling stock in 1917. The deep wine red of the CPR's Tuscan red colour is still used today on Canadian Pacific's "*Royal Canadian Pacific*" a high end tourist train service which visits Banff many times during each summer with matching streamlined locomotives originally manufacture by general motors during the same era as units 4104 and 7009.



Locomotive 4104, manufactures model CPA-16-4, CPR class DPA-16g.

#### SPECIFICATIONS

Year built: 1954;

Manufacturer: Canadian Locomotive Company, Kingston, Ontario;

Length: 56'6",

Height: 15'0",

Width: 10'7";

Weight: 266,000 lbs in working order 241,400 lbs light (dry).

CP 4104 was also among the last of her class to receive a #2 overhaul at CPR's Ogden Shops (1969). In 1974, she was retired 'serviceable' and subsequently held for disposition. The unit was acquired privately in 1979.



Locomotive 7009, manufactures model H-16-66 "Baby Trainmaster".

#### SPECIFICATIONS

Year built: 1958;

Manufacturer: Fairbanks, Morse & Company, Beloit, Wisconsin;

Length: 62.0',

Height: 15'6",

Width: 10'4";

Weight: 301,000 lbs.

CP 7009, affectionately known as a 'Baby Trainmaster' within the industry, was a single unit order for the Aluminum Company of America. Following an operational life of dedicated coal service, the unit was purchased privately in 1982.

Containing the same 1600 HP engine as that in CP 4104, CP 7009 is similar in appearance to CP FM road switchers of the period and is one of only two examples left of FM's H-16-66 model. The unit carries the last unused digit in the CPR 'demonstrator' 7000 series.

## STATUS

In the early 1990s, both units were started at CP's Alyth Diesel Shop (Calgary); both remain in operable condition, but have not done so in the past decade.

## HISTORICAL SUITABILITY

CPR endeavored to standardize FM units in the mountainous regions of western Canada, with major service and repair facilities for these locomotives being located in Calgary and Nelson.

During their working lives (1951-1976), CP's various classes of 97 FM locomotives could be found in passenger and freight service on the one time two CPR main lines to the Pacific Coast, equally at home on the steep grades of the Rocky and Kootenay mountains as well in heading consists transiting Banff.

Significantly, and other than CP 4065 which was donated to the National Science Museum in Ottawa, CP 4104 is the lone operational Consolidation Line (C-Line) unit of 176 built at Kingston and Beloit. CP 4104, moreover, has been considered a prospective candidate for a Canadian heritage designation.

## PREFERRED DISPLAY VISION

The locomotives 'show well', attract attention, and have an enthusiastic and dedicated following. In this regard and while on public display for over a decade at the Museum of the Highwood (High River), they attracted between 60-100 visitors per week.

In recognition of over 10,000 hours devoted to their restoration to date, it is considered important to maintain public access to the units, and with a view to protecting investments in the units, that this be managed in a secure and safe manner. Preference is inside or under cover as weather and vandals are taking their toll.

In terms of presentation - with either the units set off together as a stand alone display or as part of a CP display consist - it is essential the setting reflect favorably upon CPR whose involvement and support has been appreciated.