CANADIAN PACIFIC MOTIVE POWER TODAY

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(Continued from November issue)

In 1906, no doubt encouraged by the success of their 4-6-0's, motive power officials used a trailing axle for the first time on two engines proportioned similarly to the D10Ts. The G1 Pacifics, perhaps better known around Toronto, differed from the G2fs by virtue of the largest driving wheels yet used—75". 2237 was the last of the G1's but the G2's were not discontinued until over 160 had been built; most of them have been rebuilt once or twice, and fitted with feed-water heaters, 2500 and 2600 are their numbers and they are scattered far and wide; western operating men rely on them for extra sections of heavy trains like the Dominion. Some are being rebuilt for the third time with 250 lb. boilers, and there are few engines more highly regarded than these reduced-cylinder, high pressure and consequently 'peppier' versions of the light Pacific.

The eight-wheel switcher was improved that year with the V3's of the low 6900's, formerly cross-compound 2-8-0's. Like the M4's and D10's some had 21x28 cylinders with 200 lb. of steam, others had 22 1/2x28 cylinders and 180 lbs. of steam. One is left, 6902 at Fort William,

Articulated engines were built for the Rockies in 1909, their 0-6-6-0 arrangement having all four cylinders together, the forward pair pushing, so to speak. Quite unsuccessful they were rebuilt soon after the completion of the Spiral Tunnels to the present-day R2 Decapods, 5750-5755, used in transfer service at Toronto and Montréal.

Another 1909 innovation was the N3 heavy Consolidations, later rebuilt to the N2's; nationally known, 160 odd 3600's and 3700's are more useful power as N2's, their predecessors having had no superheaters.

1911 was a year of augmentation of existing types, but the next year the Mikado was recognized by the appearance of the first 20 of 90-odd such engines. They possessed the same cylinder and wheel dimensions as the N3's, and when rebuilt at Angus in 1926 were type 'A' superheated like the N2's and numbered 5100-5194. They are assigned to many districts and haul the popular ski trains north out of Montréal.

A popular fifteen year old type was revived that year when 75 D4's rolled out with sub-class g. Little scrapping has been done and they are used extensively on the lightest lines. Watch 423 leave Kingston with the Renfrew mixed train!

In 1913 some light ten-wheelers were built as the E3's; the ten originals have survived nearing the numbers 2013 to 2022; they boast Walschaert gear, although they were lighter than most 4-6-0's even when built.

Of the hundreds of new engines built during the war, very few mere newly laid-out. Two, Mountain type 2900 and 2901, were of these. Resembling G2's, these light I1's now run into St. John, N.B., having been removed from the Ottawa-Toronto run upon its pooling. They gave only limited satisfaction in assigned service, and their lineage was discontinued.

As the war started, three ten-drivered switchers starting with 6950, class W1, were company-built, and now wear passenger engine striping in Winnipeg Station. 5756-5790 were

the numbers under which Angus built 2-10-0's in 1917. Nearly all oil-burning, they operate of course in Alberta and British Columbia, particularly helping from Field to Golden,

So-called big power came to the CPR in 1919 with the two passenger classes, G3 and G4, and two freight classes, P2 and S2. The original three G3's, known as 2300's, were very successful, the largest passenger engines on the line, and have been repeated again and again as the archetype of C.P.R. locomotives. The G4 2700's were also successful, even though production stopped with the 18th. Rarely seen in the east, many haul varnish from Revelstoke to the sea, and silk in express cars into Winnipeg. Two were equipped with automatic train control, and until 1938, Buffalo, N.Y. saw much of 2714 and 2715.

Similarly most of the 52 5800 class 2-10-2 engines went west to burn liquid-fuel. Out of a total of 15, three coal-fired helpers toil backwards up the hill from Hochelaga to Outremont in Montréal. In appearance they were, and remain, massive and typical of Canadian Pacific motive power.

The ranks of the huge P2's, originally wheat-hauling Mikados, included 5359 by the time five gems had passed and had spread east to pull manifest freight. Until 1926 they were to freight what the G3's were to passenger service—power extraordinary .

That was the year that 250 lbs. of steam were tried on these favourites, while in 1928 the type E superheater meant the discard of the Cole locomotive formulae as tractive power became secondary to horsepower at speed. Some G3's were given new tube-sheets and front-end throttles, and became still better and even today in the minds of some are the best passenger engines.

But modern design implied 275 lbs of steam and a 4-wheel trailing truck to carry a mammoth fire-box. Montréal-Toronto trains grew still heavier and so even the G3 bowed to the mighty K1, sleekest of all machines before streamlining and smoke-deflectors were known. The C.P.R. had used nickel in boiler steel for the first time when Angus gates closed behind 75"-wheeled 3100, to let her lift 1600 tons out of Windsor Station .. .resting next morning to watch Toronto's old Union Station disappear.

4-6-4's followed 4-8-4's when 6x12; hours were allotted to the afternoon racers. Ten were doubled by 1930 by which time the 2800's were recognized as the superb fulfillment of one of the best designs ever conceived in America.

Contemporary with these H1's were the T1's, later christened Selkirks. 2-10-4 by wheel arrangement and 5900 by serial, Selkirks were pressed into passenger and freight hauls west from Calgary; the latest ten, streamlined, booster-equipped, and counterbalanced for 68 m.p.h. are the regular passenger engines from Calgary to Revelstoke, the only break in the long line of Hudsons on the transcontinental run.

Fat-boilered eight-wheelers were assigned by pairs to the principal yards across Canada as Kingston locomotive builders delivered the 6600's. 60,000 lbs. tractive effort give these giants with their short stacks fine value for their 250 lbs of boiler pressure.

Angus turned out its last new engine in 1931 with the big 8000, of which a story in itself could be written. Three-cylindered, efficient and economical, it was never known to fail on Field Hill, whatever the load.

Five years of depression ended with the possibilities of light, special-purpose locomotives. The 3000 series was radical for a 4-4-4 classification. Also for complete streamlining, 300 lbs. boiler pressure and 80" drivers. Clasp brakes on these drivers are needed to check them as they race from Montréal to Québec, Toronto to Windsor, and Calgary to Edmonton.

The type was repeated in a smaller version the following year when twenty Fl's left Kingston with 16 1/2" cylinders, no stokers and only 56 tons on their drivers. Save for two in the east, all are in Manitoba, handling their specialty, local trains.

The C.P.R's only excursion into internal-combustion took place in 1937 when National Steel Car built a Harland and Wolf Diesel and a Stone-Franklin electrical transmission into the 700, now switching in Montréal.

And 1937 was also the year that H1c's sent their predecessors, the a's and b's, west into dual service when 30 Royal Hudsons flooded eastern lines with big streamlined passenger power. Boosters mere adopted for some following trials with 2811 and 2813, as were single-guide bar, multiple-bearing crossheads from their proving grounds on one side of 2810 and 2816. Ten more Hl's in 1939 and an oil-burning five in 1940 resulted in redistribution, and today 2320-64 handle all main line passenger runs west of Québec City, except when an occasional lower number is seen on extra trains, or sections of trains, or as replacements during shoppings. Phenomenal runs indeed are the 1600-mile trips from Toronto to Fort William and Winnipeg to Calgary, both return, but they are the everyday stints of scarlet gold H1's, with their high rate of utilization.

The faithful G3's and P2's returned in 1940 and 1941 with cleaned-up lines. The former have completed their class's transition by handling prairie freight—the latter are there too, as well as shouldering their way behind Lake Superior, doubleheading passenger trains. Here in the Ontario district, early 2300's and 2800's snake out of West Toronto bound for Outremont with fast freight, showing an adaptability equalled by few high-wheeled passenger engines.

(The above is the second part of a paper presented to the Society on November 7, the 56th Anniversary of the driving of the last spike of the Canadian Pacific Railway.)