North Island Main Trunk Line.

A NATIONAL UNDERTAKING.

By Our Special Commissioner

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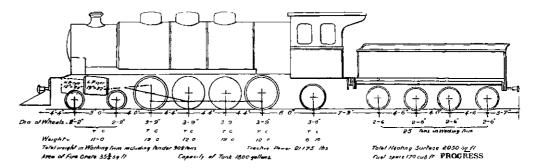
PART II.

DESCRIPTION OF THE WORKS AND ROUTE.

PROPERLY speaking, the Main Trunk Railway begins at Auckland and ends at Wellington, but the portion of the line to Te Awamutu having been so long in use, and the southern section being ${\bf m}$ the hands of a company, the popular mind has come to look upon the portion from Te Awamutu to Marton, on the Wellington-New Plymouth railway, as constituting the Main Trunk Line. As the northern and southern sections are now well known to travellers we will attempt only a description of the less widely known section of the railway connecting them. Te Awamutu is a neat little town 100 miles south of Auckland. Thence to the native town of Te Kuiti, a distance of twenty-five miles, the construction works are of an easy nature. At the latter point, however, the Line commences to rise by a succession of I in 70 grades. Up to this point we have been travelling in the dramage area of the great Waikato river, the waters generally flowing north to empty themselves into the sea at the Waikato heads. We now ascend the divide between the Waikato and the Mokau basins, and cross it a mile or two before reaching Puketutu station. Here the waters flow to the west, towards Taranakı. A little later we rise to the main summit at the Poro-o-tarao tunnel, where we enter the drainage area of the Wanganus river. From this point all the waters flow southwards to Cook straits. For about twenty miles on the section of line referred to the works are somewhat heavy, consisting of rock cuttings and banks, with occasional short bridges and one large viaduct at Waiteti--the first of many to be met with on the Line. The country from Te Kuiti to this point is not very inviting for settlement, but the Maoris keep a few cattle and manage to grow sufficient for their own needs. The tunnel through the dividing ridge at Poro-o-tarao was a heavy piece of work, being 63 chains in length,

through papa rock. From the tunnel southwards comparatively easy works of an average character carry the Line past the old Maori village of Taumarunui, picturesquely situated on a triangular flat at the confluence of the Wanganui and its large tributary, the Ongarue. This was a place of some importance in the old days, being on the highway from Wanganui to Taupo on the east, and the Waikato on the north, and at a later date was a safe and widely used fording place for horse

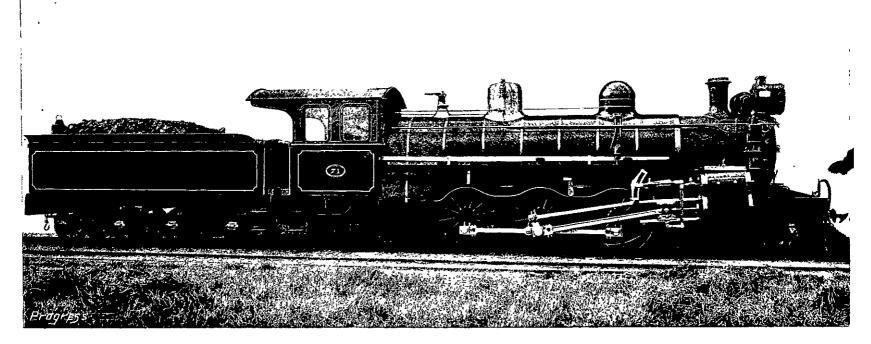
been heavy and costly, particularly along the banks of the Whakapapa and Piopiotea rivers. At Kakahi, beyond Piriaka, the Government has established a sawmill in the totara forest, where sleepers and timber for bridges, culverts, station buildings and other works are cut, and dressed. A large proportion of the timber in this part of the forest is totara of excellent quality attaining a marvellous growth in the pumice which covers the flat land and gullies to a depth of several feet. On the hills the soil is fair, and much of the land has been disposed of to settlers for grazing purposes after the timber has been cut out. The large proportion of totara on the fringe of the bush at this point gave the impression that the Waimarino forest was nearly all totara, but more thorough investigation shows that the proportion of totara diminishes as the forest is penetrated, although the other timber which grows in abundance is not inferior in size or quality, and is of considerable value. It consists of rimu, matar, and karwaka on the flat and undulating land, and runs off into birch and scrub on the slopes of the higher mountains. Cuttings, banks, bridges and viaducts



PROPOSED 4-CYLINDER BALANCED COMPOUND I OCOMOTIVE FOR USE ON THE MAIN TRUNK LINE BETWEEN TAIHAPE AND TAUMARUNUI. WEIGHT, WITH TENDER, 90 TONS.

traffic across the Wanganui. At present it is the terminus of the railway, and also of the steamer navigation on the Wanganui river. From here the steam-boat can be taken for Pipiriki and Wanganui. On the south side of the river no great engineering difficulties are met with till Piriaka is reached, if we except the tendency of the treacherous papa slopes to slip and block the Line without giving the engineers much warning.

At Piriaka the Line commences to climb up to the Waimarino tableland, a rise of 2,000 feet having to be negotiated at a workable grade. The country hereabouts is mountainous and broken, and in consequence the construction works have are met with on the twenty miles of the Line southwards of Piriaka, which continues through heavy bush country on a steady ascending grade, but the sharp natural rise in the country prevented effect being given to the original decision to have a maximum grade of I in 70. At Raurimu, the centre of activity on the northern section just now, where the majority of the nine hundred workmen are to be found, considerable difficulty was experienced by the engineers in obtaining sufficient length of line to be able to adhere even to the modified grade of I in 50, and it became necessary to adopt one or two expedients to get the necessary distance. One of these is unique in railway construction schemes in this colony.



LOCOMOTIVE, CLASS "A," WHICH IS INTENDED FOR EXPRESS SERVICE ON THE MAIN TRUNK LINE BETWEEN PALMERSTON N. AND TAIHAPE, AND TAUWARUNUI AND AUCKLAND. WEIGHT, WITH TENDER, 72 TONS.