

No. 12.

The SUPERINTENDING ENGINEER, Christchurch, to the ENGINEER-IN-CHIEF.

(Telegram).

Christchurch, 11th September, 1877.

Re native coal trial, Mr. Conyers absent on duty. Have requested Mr. Smith to furnish particulars at once. Will wire you as soon as received.

The Engineer-in-Chief.

JNO. MENZIES,
(For Superintending Engineer.)

No. 13.

The ENGINEER-IN-CHIEF to the Hon. the MINISTER for PUBLIC WORKS.

Order Paper of 11th September, 1877.

11th September, 1877.

In re Trial of Native Coal on Canterbury Railways.

No. 1, Mr. Wason's question :

The engine was stated to be ready, all but a little painting, on the 8th August. Sufficient time has hardly elapsed to give correct results yet.

In reply to Mr. Wason's question, it might be stated that the Locomotive Engineer has altered the engine, and that reports on the trials are expected early.

The Hon. the Minister for Public Works.

JOHN CARRUTHERS.

No. 14.

The SUPERINTENDING ENGINEER, Christchurch, to the ENGINEER-IN-CHIEF.

(Telegram).

Christchurch, 11th September, 1877.

Re trial of native coal. Mean consumption of native coal per mile, 83.17. Mean cost per mile, 8.54. Mean for Newcastle coal, 24.8 and 3.97. Analysis by first post.

The Engineer-in-Chief.

J. MENZIES.

No. 15.

The SUPERINTENDING ENGINEER, Christchurch, to the ENGINEER-IN-CHIEF.

Public Works Office, Christchurch (Constructed Railways Branch),
12th September, 1877.

I HAVE the honor to forward herewith particulars of five trials made by the Locomotive Engineer of the Christchurch Section New Zealand Railways, with a view to testing the economical qualities of the native coal as a fuel for locomotives.

The experiments, as will be seen by the table attached, are very unsatisfactory, the mean result being—cost of native coal, 8½d. per mile, against 4d. for Newcastle.

The engines in use here are, in my opinion, quite unfitted for the burning of native coal, the grates being very limited in area, and the blast proportionately strong.

As the question is one of great colonial importance, I would respectfully urge upon the Government the desirability of importing a locomotive built specially for testing the qualities of the native coals. The difference in cost between the special engine and the ordinary one now in use would be trifling, and I believe the result would be satisfactory.

I attach herewith a copy of a table of experiments made on the Bluff Harbour and Invercargill Railway on the 5th of June, 1868, with coal from the Nightcap, the result comparing favourably with that shown by Mr. Smith.

I have, &c.,

W. CONYERS,
Superintending Engineer.

The Engineer-in-Chief, Wellington.

Enclosure 1 in No. 15.

The LOCOMOTIVE ENGINEER, Christchurch, to the SUPERINTENDING ENGINEER, Christchurch.

SIR,—

11th September, 1877.

I have the honor to forward you herewith a statement of trials made on native coal as a fuel for the locomotives on the Christchurch Section of the New Zealand Railways. The five trials are not the only ones we have had, but are selected as having been made on engines specially altered to suit the draught required.

The results have, to my mind, been very unsatisfactory, and a comparison of cost with that of Newcastle coal shows that it would not be economical to use it. No doubt if our engines were specially designed to burn lignite coal, and if the firemen were carefully trained to its use, we should be able to show better results.

We have also tried this coal in the workshops' engine, but the result there shows that we require nearly twice the quantity. I cannot see how native coal can pretend to compete with the present low rate at which we are supplied with Newcastle coal.

In conclusion, I must apologize for the delay in rendering this return, and plead as an excuse the great variety and amount of other subjects which have been receiving my attention.

I have, &c.,

The Superintending Engineer, Christchurch.

ALLISON D. SMITH.