M.R.O. 1—77,006—8-6-37.

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(2) Date of repair 8-2-43

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 318 Press Mis.

43-44

Dated 2 2 1871.

Not to be folded or roughly handled

No. 43. Read the following letter from the Deputy Secretary to the Government of India, Public Works Department, (Railway,) to the Secretary to the Government of Madras in the Public Works Department, Railway Branch, dated Fort William, 13th December 1870, No. 2,008-R.:—

I AM directed to acknowledge the receipt of your letter, No. 2,645, of the 4th November 1870, submitting copy of papers relating to the subject of reducing the working expenses of the Great Southern of India Railway.

2. The Governor-General in Council recognizes the efforts that have been made to improve the financial position of this undertaking, and cordially acknowledges the endeavours of the officers of Government, and the ready spirit evinced by the Railway authorities, to meet the common object of all—economical management. His Excellency in Council does not doubt that the following remarks and suggestions will be received in the same spirit, and, so far as they commend themselves for adoption, will result in further action in the same direction.

3. The working establishments are low of their kind, but the small amount of traffic that offers itself for transport by rail (amounting to £7 to £8 per mile per week) makes it worthy of consideration whether a totally different kind of traffic arrangement would not be more suitable to the wants of the case. The Calcutta and South-Eastern (State) Railway, with its traffic of £6 per mile per week, is now worked on a less expensive plan, and I am directed to forward a copy of the papers explanatory of this system as being of possible value in connection with the matter.

4. The Railway authorities and the Consulting Engineer do not advocate any reduction in the train mileage through fear that the revenue would suffer, and the Agent states that, on the western section of the line, the gradients limit the load of passenger engines to twelve vehicles, and of goods engines to twenty vehicles. From the Time-tables attached to the Review of the Revenue Account for the first-half of 1869, it appears that on the western section of the line, from Erode to Trichinopoly, the passenger trains run at an average speed of 18 miles an hour, including stoppages. On the eastern section, the trains to Negapatam seem to run at 20 miles an hour, including stoppages, and of the return trains to Trichinopoly, one travels at 20, and the other at 16 miles an hour, including stoppages. Thus an uniform speed is practically kept up throughout the line, and the train service is uniform throughout.

5. A gradient of $\frac{1}{100}$ is believed to be the steepest incline on the western section of the line, while the country east of Trichinopoly is described as level. The engines, then, which can haul twelve vehicles over the western section, could haul many more over the eastern section, but as the average composition of a train throughout the line was (including foreign rolling-stock and empties) only 14·7 vehicles in the first-half of 1869, it does not appear that the trains are sensibly heavier on the eastern section, or that the engines on that portion of the line are fully loaded. An engine that can haul twelve vehicles at a speed of 20 miles an hour over a gradient of 1 in 100, should be able to haul more than thrice that number at the same speed on a level, and although it is not probable that this speed is at present maintained over the inclines, there can be no doubt that a much greater weight could be hauled by the same engines on a level than over these gradients.

6. Without precise information as to the character of the engines of the Great Southern of India Railway, the limit of their load cannot be accurately apprehended, but it appears probable, from what is said of them, that the passenger engines could, on the eastern section, work double the above average load of a train (*i.e.*, 2 × 14·7, less one brake-van = 28·4 vehicles) at a sufficient speed. If this were possible, one train a day, instead of two trains, would carry the traffic east of Trichinopoly.

7. On the western section this might apparently also be done with the addition of a few special goods trains when required. The goods engines which can now haul twenty vehicles over this part of the line might be set aside for the working of the section, and by reducing the speed and carefully watching the loading of the carriages, one train a day would probably be found to be sufficient. The attention of the Railway Officials is observed to be already directed to the important point of loading, and it is therefore sufficient to indicate under this head that, during the first-half of 1869, the third-class carriages only carried eighteen passengers each on an average. This is below the figure obtained on the Railways in Bengal, Oudh, and the Punjab, and if the vehicles be of equal capacity, should be capable of improvement.

8. The Company had on 30th June 1869, two tank, nine passenger, and four goods engines constructed, of which one tank, five passenger, and one goods engine were running. If the first, as seems to be the case, is employed in shunting, six engines are enough for the present running, and there would thus be a sufficient number of goods engines to work the western section.

9. Irrespective of its effect on limiting the loads that can be hauled, it appears that the speed, which is at present maintained on the line, should be reduced if any sensible economy can thereby be gained with the engines in use. A speed of 15 miles an hour as a maximum has been considered sufficient for the Railway through the fertile and very populous districts of Oudh and Rohilkhund, throughout the Punjab, and on the Railways which are now being constructed by the State. As a reduction in the rate of speed carries with it a reduction in the cost of maintenance and of working, I am directed to commend it strongly to the Government of Madras for, at any rate, temporary adoption, as a measure of economy which the paucity of the traffic seems to demand.

No. 44. ORDER THEREON, 2nd February 1871, No. 318.

RAILWAY, No. 6.

COMMUNICATED to the Acting Consulting Engineer for Railways with reference to G. O., No. 2,644, dated 4th November 1870.

2. Adverting to the observations in paragraph 3 Captain Prendergast will, in communication with the Agent and Manager, report whether, looking to the small amount of traffic on the Great Southern of India Railway, a modification in the present traffic arrangements could not with advantage be made, and he will state at length his opinion on any proposals that may be submitted for the approval of Government.

3. The attention of the Railway authorities will be specially drawn to the remarks in paragraphs 6 and 7 with a view to its being considered whether it is not possible, by employing the maximum haulage power of the engines and fully utilizing the carrying capacity of the stock, to reduce the number of ordinary trains on each section of the line from two to one in either direction, special goods trains being run when the circumstances of the traffic are such as to require them.

4. Referring to paragraph 9 the Acting Consulting Engineer will state his views on the suggestion of the Government of India to lower the present rate of speed, and he will report the saving in the cost of maintenance and working likely to be effected by such an arrangement.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Consulting Engineer for Railways, with two Enclosures.

Exd. E. C. Shunker.

Govt. of {1871} Madras.

PUBLIC WORKS.

To

THE ACTING CONSULTING ENGINEER

FOR RAILWAYS.

Dated February, 2nd.

Recd. *Encl.*

G. O., 2nd February 1871, No. 318.

FEBRUARY.

Nos. 43-44

Working Expenses.—Letter from the Government of India passing orders on the subject of reducing the working expenses of the Great Southern of India Railway and making certain suggestions for the further improvement of the financial position of the Railway, communicated to the Consulting Engineer for Railways with remarks.

Public Works Department.

No. 318

Proceedings of the Madras Government

Under date the 2 Feby 1871

Read the following

from the Government of India, F.E. & P. 2008 R. of 13 Decr 1870

Communicated to the Acting Consulting Engineer for Railways with reference to G. O. No. 2644, dated 4th November 1870.

Adverting to the observations in paragraph 3 Capt. Prendergast will, in communication with the Agent and Manager, report whether, looking to the small amount of traffic on the Great Southern of India

India Railway, a modi-
fication in the present
traffic arrangements could
not with advantage
be made, and he will
state at length his
opinion on any proposals
that may be submitted
for the approval of Govt.

The attention of the
Railway authorities will
be specially drawn to
the remarks in para-
graphs 6 and 7 with
a view to it's being
considered whether it
is not possible by
employing the maximum
haulage power of the
engines and fully utili-
-zing the carrying
capacity

capacity of the stock, to
reduce the number of
ordinary trains on each
section of the line from
two to one in either
direction, special goods
trains being run when
the circumstances of
the traffic are such as
to require them.

Referring to para-
graph 9 the Acting
Consulting Engineer will
state his views on the
suggestion of the Govt.
of India to lower the
present rate of speed,
and he will report
the saving in the
cost of maintenance
and working likely

to

to be effected by such an
arrangement.

(32)

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Ls.

The Asst Cons Engineer for
Railways with 2 Encls. &

Despd 3/2/71.

Rec'd 4th November 1870 & Ans'd 8th Dec 1870

10 No 5200

Govt of {1871} Madras.

PUBLIC WORKS.

To The Ag. Consulting Engr. for Railways.

Dated

Rcvd. Read.

G. O., 2d Feby, No. 318.

Nos. 431444

Working Expenses - Letter from Govt of India passing orders on the subject of defraying the working expenses of the S. I. Railway & making certain suggestions for the further improvement of the financial position of the Railway, Copy to the Consg Engr for Railways with remarks.