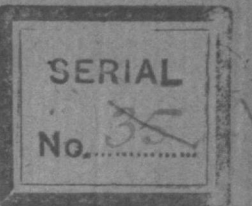


Public Works (1897) Department.



G.O., No. 108 R

DATED 19 February 1897

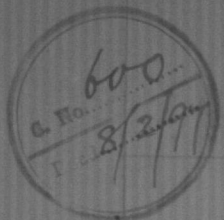
[Despatch Abstract.]

Orders: Letter to the Govt of India forwarding a copy of Sir E. Bruce's letter on the question of strengthening the weak - on the S. P. R. and stating that owing to the railway being short handed the calculations referred to in letter No. 1035 R of 11.12.96, may be delayed.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

MG

4
forward to India
Secy. B. K. letter with ref to
~~conclude~~ our 1035R and say
that owing to the 5-1-72
big short-handled the
calculations therein
refer to may be
delayed
H. P. 12/1/72



3

From
THE AGENT,
SOUTH INDIAN RAILWAY,
Trichinopoly.
To
THE CONSULTING ENGINEER FOR
RAILWAYS,
Madras.
Dated
Received
No.
ENCLOSURE.

South Indian Railway.

(K. K.)
5

Extract from the Managing Director's Letter No. 182, dated London,
the 15th January 1897.

Subject.

Strengthening of Girders.

Extract:— The remarks of the Senior Government Inspector,
and of the Consulting Engineer for Railways, Madras, contained
in the Inspection Report for the half year ended 30th June
1896, were brought to the notice of Sir George Bruce, who
in a letter (copy enclosed) dated 30th December, has expressed
his views thereon which be good enough to convey to the
proper quarter. The Chief Engineer should also be advised.

AGENT'S OFFICE,
TRICHINOPOLY,
2nd February 1897.

(True Extract)

Accompaniment to the Agent's letter No. 20
of 6th February 1897.

Chief Clerk, Agent's Office.

South Indian Railway,
Engineer's Office,
3 Victoria Street S.W.
30th December 1896.

H.W. Notman Esquire,

My dear sir,

Inspection Report.

I duly received yours of the 9th instant, enclosing a copy of the Senior Government Inspector's Report of Inspection for the half year ended the 30th June 1896.

In the note of Mr: F.R. Upcott, the Government Consulting Engineer for Railways, following on the above report, he suggests that my attention should be drawn to a paragraph (No: 12) in it referring to the strengthening of girders and the principles to be followed in doing this.

I reported very fully and in great detail on this subject on the 26th February 1894 and I do not see that I can add anything to what I then wrote so far as the general question is concerned. In regard to paragraph 12 of the Senior Inspector's report, he there suggests that all girders which are below a fixed standard of strength by more than 20 per cent or such other percentage as may be decided upon should be strengthened up to the full Government standard; all within that percentage to remain as they are.

With the weights of locomotives at present in use, on the basis of Board of Trade regulations such a rule would not affect the larger girders of the South Indian Railway as there is only one member in one span of these bridges which is more than

182 of 15/1/97

15/1/97

(K. K.)
5

(2)

20 per cent below the Board of Trade regulations and in that case it is 21.4 per cent below. Any other cases which with present weights of engines, are below the Board of Trade regulations are well within the suggested allowance of 20 per cent.

The smaller girders of the South Indian which were shewn in my report of February 1894 to be weak have, I understand, been already strengthened or replaced. If such a course as that mentioned in paragraph 12 of the report is adopted, I would suggest a limit of 25 per cent below Board of Trade regulations. This would be equivalent to allowing a strain in tension of 6.25 tons instead of 5 tons and in compression a limit of 5 tons instead of 4 tons. These limits would involve no danger. I agree with Mr: Upcott that the restriction of speed is not a fitting expedient to be adopted. Where strengthening of bridges is resorted to, it should be carried out up to the strength required by Government in the case of new works or renewals.

Judging from the report of Mr: Hodson, the efficient painting of these iron bridges required very careful and special attention

Your faithfully,
(sd) George B. Bruce

55 Gracechurch Street,

E.C.

Agent's Office,
Trichinopoly,
2nd February 1897.

(True copy of a copy)

W. L. Measurie

for Agent.

ENCLOSURE TO E. R. S. C. No. 600
 LETTER No. 130 of 6.2.97
 FROM A

R. FORM No. 12.

No. 1082

Government of Madras.

PUBLIC WORKS DEPARTMENT.

RAILWAY BRANCH

SERIAL
 No. 1135

To

THE SECY. TO THE GOVT. OF INDIA,

P. W. DEPARTMENT.

Calcutta

Madras, the 19th February 1897.

SIR,

With reference to
 my letter No. 1035 R & 11
 December 1896, I am directed
 to forward herewith a copy
 of Sir George Bruce's letter dated
 30th December 1896, on the
 question of strengthening
 the weak points on the S. I.
 Railway, and to state that,
 owing to the S. I. Railway
 being short-handed, the cal-
 culations referred to in my
 letter quoted above will be
 delayed.

J. F. 15/2/97
 CMS.

Documents accompanying
 Copy of letter from Sir S. Bruce
 received from S. I. R. letter
 182 of 15/1/97