M.R.O. 1—77,000—8-6-37.

(1) Number of pages

(2) Date of repair

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1615-1616 Press
8.9.90 Mis.

Dated 4-4 1892.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 4th July 1872.

No. 89. Read the following letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 20th June 1872, No. 315:—

I HAVE the honour to request that the attention of the Government of India may be called to what seems to be a clerical error in the table of "Provisional dimensions to be followed in the construction of Indian Narrow Gauge Railways," which was forwarded by the Government of India with their letter* of the 25th September 1871, No. 1,807-R.

* *Vide* G. O. 14th October 1871, No. 2,624.

2. Under No. 6 of these provisional dimensions is given the rolling load per metre of track in kilogrammes, and per foot of track in tons, to be assumed in calculations for strength of girders. Thus, for an opening of from 4 to 6 metres the rolling load per metre of track is given at 5,000 kilogrammes, and per foot of track at 1·493 tons. Similarly, for an opening of from 6 to 15 metres, the rolling load per metre of track is given at 3,300 kilogrammes, and per foot of track at 0·985 tons.

3. Lower down the table, under No. 7 of the provisional demensions, the rolling load on each girder is given. For an opening of 6 metres, or 19 feet 8·2 inches, the rolling load on each girder is stated to be 30,000 kilogrammes, or 29·40 tons. And, for an opening of 12 metres, or 39 feet 4·4 inches, the rolling load on each girder is stated to be 39,600 kilogrammes, or 38·81 tons.

4. A comparison of these two calculations leads to the conclusion that one must be incorrect, and that the figures given under the heading "Rolling load on each girder" must be halved, inasmuch as they at present represent the rolling load on each pair of girders.

5. The point is of very great importance in fixing the dimensions of the bridges for the narrow gauge lines in this Presidency, and I beg that the attention of the Government of India may be drawn to it as soon as possible.

No. 90. ORDER THEREON, 4th July 1872, No. 1,615.

RAILWAY, No. 23.

ORDERED that this letter be forwarded to the Government of India.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government.

No. 91. (DOCKET No. 1,616, dated 4th July 1872.)

COPY of the above forwarded to the Government of India.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

Exd. T. O'Connor.

3056 January 25.

3056

My dear Colonel.

I return Cn. Lyp.
fr. Wi letter d. 21 & 9. 2 hun
with a note:

The figures in each case
(French & English) you
will see, bear out the
views I have set in the letter

Yours truly

O Wilcox

Tucson

6600 Kilos
2 Ruhes
13,200 Kilos

Rolling load for 2 Ruhes back } = 1.971 Tons per foot
for opening 2 Ruhes back } 6.55
9855
Rolling load on rail } 9853
Girder if a roller beam } 11826
and 1 = 6.67 26.538 } 12,91.005 Tons
12.94 Tons

Jo. for Roller Beam 3 Ruhes Ft. In. Ft. = 9.7011 = 9.84 = 19.48 Tons.

6600 Kilos
3 Ruhes
19,800 Kilos

9.84
1976
15768
19739
19.48 Tons
19394.64

for Roller Beam 4 Ruhes Ft. In. = 13.115 = 25.85 Tons

6600 Kilos
4 Ruhes
26,400 Kilos

19.71
15.12
3942
19713
5913
19.71
658.59.52 = 25.854
714

for Plate Girder 6 Ruhes = 19.82 = 19.085 = 29.46 Tons

1495
6600 Kilos
6 Ruhes
39,600 Kilos

19.68
11944
19.588
13437
1495
29,38.244 = 29.38 Tons

Note on . Co. exp. in Ry letter 1.515
20 June 1872

Jn. Blake Finden

	Ft	In	Ft	
12 Inches =	39	4.4	= 39.366	= 38.81 Ins

39.366
1.685
196830
3.14928
854294
38,776,510 = 38.776 Ins

The division in the table (1.) thus 12 inches Finden for a single track C.C. & S. ... Means that "track" represents the pair of Sticks in this table, as is usual in railway matters -.

The figures 1.971 Tons per foot rolling load per centre of track clearly represents rolling load per pair of Sticks; and Figs. 9866 Ins per foot as the rolling load per Stick.

In the second half of this table known 12.94 is represented as the rolling load for each Stick of a rolling span 2 Metres in length. which is just double the product arrived at by multiplying, as above. the length of such a Stick by the rolling load in Tons per foot, found for Sticks of this class. As will be seen by the above figures, the tabular figures headed "rolling load on each Stick" are just double in each case what they should be and the error probably lies in the omission of "pair of" in the heading.

The original order for the Govt. Insp. might I think be consulted to see whether the error lies with the "Limiting office" of this Govt. if not, an explanation must be written for..

Lieut. Col. R.E.
W. Lines Lec & Insp.

June. 25. 72.

2. Under

RAILWAY DEPARTMENT. CONSULTING ENGINEER'S OFFICE.

No. 315

From Lieutt Colo J. F. M. Shaw Stewart, P.S.,
Consulting Engineer for Railways,

To Colonel J. W. Walker, P.S.,
Secretary to Government,
Public Works Department,
Fort Saint George.

Sir,

I have the honour to request that the attention of the Government of India may be called to what seems to be a clerical error in the table of provisional dimensions to be followed in the construction of Indian narrow gauge railways, which was forwarded by the Government of India with their[x] letter of the 25th September 1871, No. 1807. P.

[x] Vide G.O. 14th October 1871. No. 2624.

2. Under

2. Under N:6 of these provisional dimensions is given the rolling load, per metre of track in kilogrammes, and per foot of track in tons, to be assumed in calculations for strength of girders. — Thus, — for an opening of from 4. to 6 metres the rolling load per metre of track is given at 5,000 kilogrammes, and per foot of track at 1.493 tons. Similarly, for an opening of from 6 to 15 metres, the rolling load per metre of track is given at 3,300 kilogrammes, and per foot of track at 0.985 tons.

3. Lower down the table, under N:7 of the provisional dimensions

dimensions, the rolling load on each girder is given. For an opening of 6 metres, or 19 feet 8.2 inches, the rolling load on each girder is stated to be 39,000 kilogrammes, or 39.40 tons. And, for an opening of 12 metres, or 39 feet 4.4 inches, the rolling load on each girder is stated to be 39,600 kilogrammes, or 38.81 tons.

4. A comparison of these two calculations leads to the conclusion that one must be incorrect; and that the figures given under the heading — Rolling load on each girder, must be halved; inasmuch as they at present represent the rolling load on each pair of girders.

5. The point is of very great importance in fixing the dimensions of the bridges for the narrow gauge

Public Works 1872 Department

No. 3056

RAILWAY DEPARTMENT.

1872.

From

The Consulting Engineer
for Railways,

To

The Secretary to Government,
P. W. Department,
Fort Saint George.

Dated 20th June 1872.
Recd. 21st "

No. 315

Respecting the dimensions to be followed in the construction of Indian narrow gauge railways

No. 3056 dated July 72

14th October 1871 No. 2112 & 2113

Order that this letter be forwarded to the Govt of Madras

Letter from Secy of State dated 10th Nov 1871

Letter from Govt of India dated 16th Nov 1871

Forwarded to the Govt of Madras

Recd 18th Dec 1871

Letter from Consulting Engineer for Railways dated 20th June 1872

Recd 21st June 1872

Sir,

I have the honour to draw your most obedient servant

Madras 20th June 1872

W. Mansfield
Lieut R.E.

Consulting Engineer for Railways

I beg that the attention of the Government of India may be drawn to it as soon as possible.

I have the honour to be

Sir

your most obedient servant

W. Mansfield
Lieut R.E.

Consulting Engineer for Railways

Sir,

I have the honour to forward herewith a letter from the Secretary of State, dated 10th November 1871, No. 213, on the subject of the dimensions to be followed in the construction of Indian narrow gauge railways.

2. I am directed to request that you will be so good as to cause the letter to be forwarded to the Government of Madras.

I have, &c.

(signed) H. Waterfield
Secy to Govt

Rec'd 18th Dec 1871

Rec'd 21st June 72

Cfe 3056

Govt. of 1872. Madras.

PUELIC WORKS.

To The Commanding Engrs for Railways

&

Dated The Secretary to the Govt of India

Recd. Encl.

G. O. 4th July 1872. 1615-1616.

Nos. 87-90 & 94

Ind. Rail. Narrow Gauge Railways.

Forwarding copy of a letter from the Engineer pointing out an error in the Table of provisional dimensions to be followed in the construction of Ind. Narrow Gauge Railways.

Passing orders on letter from the Comg Engr pointing out an error in the Table of provisional dimensions to be followed in the Construction of Ind. Narrow Gauge Railways and suggesting a reference to the Govt of India on the subject.