

Public Works (1894) Department.

RAILWAY BRANCH.

G.O., No. 172-3 R

$\frac{1}{172R}$

DATED 20th March

[Despatch Abstract.]

O Class Metro Gauge Locomotives. — Ordered that the Secretary of State & Govt of India be addressed with regard to the new — of the S.I. Ry. having axle loads over the Standard.

— Stating that a copy of the report by the senior Govt Inspector of Railways on the new — of the S.I. Ry. having axle loads over the standard has been forwarded direct to the Secretary of State.

Forwarding a copy of the report by the senior Govt Inspector of Railways on the new O class Metro gauge Locomotives of the S.I. Ry. having axle loads over the Standard.

BACK PAPERS.

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

FURTHER PAPERS.

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

20TH MARCH 1894, No. 172 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

Telegram from the Right Honorable Her Majesty's Secretary of State for India, to His Excellency the Governor of Madras, Saidapet, dated 2nd March 1894.

Your letter 8th February. Please report officially on engines for South Indian Railway.

To the Joint Secretary to Government, Public Works Department, Railway Branch, for disposal.

3rd March 1894.

(Signed) C. F. McCARTIE,
Private Secretary.

ORDER—dated 20th March 1894, No. 172 R., Public Works.

Ordered that the Secretary of State and Government of India be addressed.

[Here enter No. 173 R., dated 20th March 1894.]

(True Extract.)

(Signed) F. R. UPCOTT,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. S. J. Pereira.
Spare Copies

RAILWAY.

Govt. of {1894} Madras.
PUBLIC WORKS.

Dated March, 20th.

Recd.

Encl.

G.O., 20th Mar. 1894, No. 172 R.

MARCH.

O Class Metre-Gauge Locomotives

Ordered that the Secretary of State and Government of India be addressed with regard to the new — of the South Indian Railway having axle loads over the standard.

20TH MARCH 1894, No. 173 R., PUBLIC WORKS.

PUBLIC WORKS DEPARTMENT.

Railway.

LETTER—from

F. R. UPCOTT, Esq.,

Joint Secretary to the Government of Madras,

Public Works Department,

Railway Branch,

To .

THE SECRETARY TO THE GOVERNMENT OF INDIA,

PUBLIC WORKS DEPARTMENT.

SIR,

In continuation of this office No. 1218 C., dated 16th March 1894, forwarding a report by the Senior Government Inspector on the 20 new O class locomotives of the South Indian Railway, I am directed to say that a copy of the report has been forwarded direct to the Secretary of State as requested by his Lordship in a cypher telegram dated 2nd March.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) F. R. UPCOTT,

Joint Secy. to Govt., P.W.D.,

Railway Branch.

FORT ST. GEORGE,
20th March 1894.

Ed. B. J. Pereira.
Spare Copies

RAILWAY.

Govt. of {1894} Madras.
PUBLIC WORKS.

Dated March, 20th.

Recd.

Encl.

20th March 1894, No. 173 R.

MARCH.

**O Class Metre-Gauge Locomo-
tives**

Stating that a copy of the report by the Senior Government Inspector of Railways on the new — of the South Indian Railway having axle loads over the standard has been forwarded direct to the Secretary of State.

20TH MARCH 1894, No. $\frac{1}{173}$ R., PUBLIC WORKS.

PUBLIC WORKS DEPARTMENT.

LETTER—to

THE RIGHT HONORABLE THE SECRETARY OF STATE FOR INDIA.

SIR,

With reference to your cypher telegram of 2nd instant, we have the honour to forward herewith a copy of a report by the Senior Government Inspector of Railways, Madras, to the Government of India on the O class locomotives of the South Indian Railway having axle loads over the standard.

We have the honour to be,

Sir,

Your most obedient, humble servants,

(Signed) WENLOCK.

(„) H. W. BLISS.

(„) J. GROSE.

FORT ST. GEORGE,
20th March 1894.

Ed. S. J. Pereira.

REPORT ON THE O CLASS LOCOMOTIVES HAVING AXLE LOADS OVER THE STANDARD.

An indent, No. 8 of 1892-93, was passed by the Government of India for 20 M class inside cylinder engines with certain modifications of F and O class engine parts on specifications drawn up by the Locomotive Superintendent, Burma State Railway.

The locomotive contract was entered into in July 1892.

The revised Government Order in which is entered the necessity for special sanction for excess axle load over 8 tons was issued in August 1892 and received by the South Indian Railway Consulting Engineer in October 1892.

Sir George Bruce states that as the M class of locomotive has inside cylinders and was therefore different from any other engines on the South Indian Railway, and as it was desirable to make parts as interchangeable as possible, it was decided that outside cylinder engines should be built and that the larger boiler of the F class should be supplied.

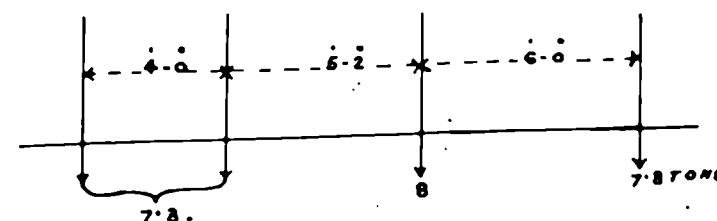
The engines were designed on these lines and with the modifications recommended by the Committee of Locomotive Superintendents at Ajmere in 1891.

Mr. Crighton, in his letter to the Agent, South Indian Railway, embodied in No. 1357 of 18th November 1893, explains the recommendations thus: "I shall feel obliged by your also bringing to the notice of the Consulting Engineer for Railways Subject No. 18, Vol. III, of Business transacted by the Locomotive and Carriage Superintendents of India in regard to the new edition of Standard Dimensions lately issued by the Government of India and in the resolution adopted for metre gauge, items Nos. 65, 67 and 69, *Weight for Locomotive Engines (page 63) under the head Standard for the maximum weight on a pair of wheels, instead of 8 tons put 9 tons and increase the scale of weight throughout to correspond.*"

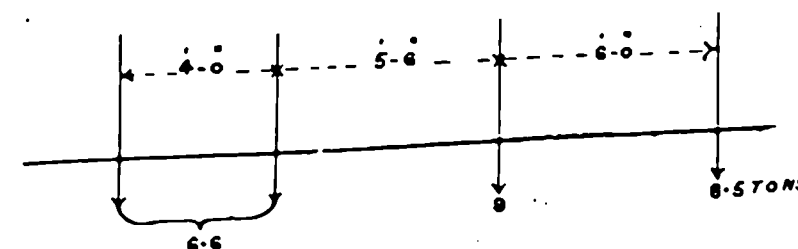
As Mr. Crighton was in England at the time, I accept the explanation, although the Consulting Engineer Sir G. Bruce was apparently of the opinion that the weight on any single pair of wheels would not exceed that on the wheels of the O class which are given as 8 and 7.3 tons respectively. This opinion was shared by the builders, Messrs. Neilson and Co.

The original O class and the present O class are here given for comparison.

Metre-gauge, class O, 4 wheels coupled, original—



Metre-gauge, class O, 4 wheels coupled, Neilson and Co.



The excess weight on the drivers and trailers is accounted for by Sir G. Bruce by a slight increase of wheel base to meet the alteration in the angle of the cylinders and the addition of the vacuum brake and piping, but Mr. Crighton's letter quoted above seems to indicate that it was all along intended to work up to the recommendation of the Locomotive Superintendents Committee of 1891.

The weight per foot run of these engines is well under standard, being .93 against 1.125 and in all other respects the engines are the most improved type of metre gauge passenger engine yet introduced on Indian railways. The Locomotive Superintendent reports very highly of their haulage capacity. They take a load of 13 double coaches carrying 588 passengers at a speed of 25 to 30 miles per hour as against the former 4 wheel coupled engine which hauled 20 single coaches carrying 492 passengers at the same speed.

They are designed entirely as passenger engines and can get up speed quickly. They are fitted with the vacuum brake gear.

With reference to the note by the Consulting Engineer to the Government of India, dated 26th January 1894, I would explain that the moving load has in all cases been multiplied by co-efficient of 2 for the cross girders under notice. Meantime every effort is being made by the Engineers to strengthen the weak girders by doubling or adding plates to bring them up to the requisite section.

I hope that in six months most of the weakest will have been thus strengthened, and it may be expedient to resume the running of these engines.

Had the Government rules been properly observed, or even had the Engineers been consulted by the Locomotive department and given time to bring their bridges up to the increased loads, the present difficulties would never have arisen.

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

(Copy.)

LETTER to the Right Honorable
the Secretary of State for
India.

No. $\frac{1}{172 R.}$ dated 20th Mar. 1894.

FORWARDING a copy of the report by the
Senior Government Inspector of Railways on
the new O class metre-gauge locomotives of the
South Indian Railway having axle loads over
the standard.

No. $\frac{1}{172 R.}$ 5-

Government of Madras.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

To
THE *Right Hon. the Secy of State*

for India

March 1894

My Lord, Sir

*With reference
to your Lordship's cypher
telegram of 2nd instant,
we have the honor to for-
ward herewith a ^{copy of a} report by
the Senior Govt. Inspector
of Railways, Madras, on the
O Class Locomotives of
the South Indian Railway
having axle loads over
the standard.*

J. H. R. 26.

R. The report is forwarded.

219/13

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No. 173 R 20 March 1941
Walter Riddle

In continuation of
this office No 1218 C 7/16/41
forwarding a report
by the Senior Port. M.
Inspector in the 20 new.
O class locomotives of
the S. I. Ry. I am
directed to say that
a copy of the report
has been forwarded
direct to the Sec. of Hqs
has received by him
London in a copy
telegram dated 2 March

Wm

