

(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.	809	(Ry)	Press
B.P. No.			Mis.
Dated	30.3		1876.

Not to be folded or roughly handled

17

*Proceedings of the Madras Government, Public Works Department,
30th March 1876.*

No. 493. Read the following letter from Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 16th March 1876, No. 136 :—

With reference to paragraph 5 of the Proceedings of Government, No. 374, dated 11th February 1876, I have the honor to submit letter, No. 1,305, dated 28th idem, from the Agent of the South Indian Railway.

2. After examining the broken draw-bars, I agree with the Locomotive Superintendent that the design is faulty and the section of metal too light. All engines are now being furnished in the locomotive shop with draw-bars of a stronger form.

From W. S. BETTS, Esq., Agent of the South Indian Railway, to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, dated Negapatam, 28th February 1876, No. 1,305.

Two of the broken draw-bars referred to in the 5th paragraph of your letter, No. 162, of the 18th instant, have been sent to your address per train, and I enclose the receipt note for the same.

2. The Locomotive Superintendent has reported to me as under upon this subject, "I attach receipt for a box containing two draw-bars which have broken, which was despatched this day to the Consulting Engineer, Madras. One is from an engine that was landed at Tuticorin and went to work at once; the other is one from an open line engine which I closed in to prevent the jerky motion of the engine arising from too much play on the draw-pins on the open slot. The pattern of draw-bar is a very obsolete one, all modern types are solid ended fast on the one pin, and only draw enough on the other to allow of angularity rounding curves. The section of metal is also too light in my opinion, error should lie on the side of too much strength. There should be no possibility of engine and tender ever becoming disconnected. I have renewed the draw-bars of twenty-four engines and have twenty-five others in the country to alter. New engines as they arrive and are erected will be similarly treated."

No. 494. ORDER THEREON, 30th March 1876, No. 809.

RAILWAY, No. 54-A.

HIS GRACE the Governor in Council approves of alterations being made to give increased strength to draw-bars; and further directs the strength of an unbroken draw-bar to be tested by ascertaining either by application of dead weight or by application of falling weights—(1.) weight with which permanent extension commences; (2) weight causing fracture.

2. On receipt of report of the result as compared with reasonable working strain and with the weight actually drawn at time of fracture of bar on line, further instructions will be issued.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the Consulting Engineer for Railways.

Exd. E. C. Shunker.
Spare Copies

PROCEEDINGS of the MADRAS GOVERNMENT.

UNDER date the

Read the following:—

From

The Com Engineer } (H.C. No. 136 of 16 March 1901)
for Railways

His Grace the Governor
in Council approved
of alterations being made
to give increased strength
to draw-bars; and further
directs the strength of
an unbroken draw-bar
be tested by ascertaining

its breaking strength
by application of
draw-weights or by application
of falling weights—

- (1) weight at which permanent extension commences.
- (2) weight at time of fracture.

2. On receipt of report
of the result as compared
with previous working

with the receipt
of the
strain further instruc-
tions will be issued.

G.M.

C No 2573

No. 1315

South Indian
GREAT SOUTHERN OF INDIA RAILWAY

AGENT'S OFFICE,

NEGAPATAM, 28th February 1876.

From

THE AGENT,
South Indian
Great Southern of India Railway,

To

The Consulting Engineer for Railway
Madras.

SIR,

Two of the broken draw-bars referred to in the fifth paragraph of your letter No 162 of the 18th Inst. have been sent to your address per train; and I enclose the receipt note for the same.

The Locomotive Superintendent has reported to me as under upon this subject: "I attach receipt for a box, containing two draw-bars which have broken, which was despatched this day to the Consulting Engineer Madras. One is from an Engine that was landed at Tuticorin and went to work at once. The other is from an open line engine which I closed in to prevent the jerky motion of the Engine arising from too much play on the draw pins on the open slot. The pattern of Draw bar is a very obsolete one. all modern types are solid ended fast on the one pin and only draw enough on the other to allow of angularity rounding curves.

The section of metal is also too light in my opinion. error should be on the side of too much strength. There should be no possibility of Engine and Tender ever becoming disconnected. I have renewed the Draw bars of 24 Engines and have 25 others in the country to alter. New Engines as they arrive and are erected will be similarly treated.

I have the honour to be,
Your most Obedt Servant

W. L. A. B. 31
Agent

By 30 March 76 P.M. 493/4

To. The Consulting Engineer for Ry.

Mr. 2004/98

RAILWAY DEPARTMENT

CONSULTING ENGINEER'S OFFICE

Madras, 16 March 1876

From

LIEUT. COLONEL J. H. N. SHAW-STEWART, R.E.,

Consulting Engineer for Railways,

To

MAJOR-GENERAL G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

With reference to paragraph 5 of the Proceedings of Government No 374 dated 11th February 1876, I have the honour to submit letter No 1305 dated 28th idem from the Agent of the South Indian Railway.

After examining the broken draw-bar, I agree with the Locomotive Superintendent that the design is faulty and

Re. 100. 1077

Received account of
the broken draw-bar
has been sent to your
office

11-1305

for Railway
the lower bars
for the lower bars

By 30 March 1876

the section of metal too light.
All engines are now being
furnished in the Locomotive
shop with draw-bars of a
stronger form.

I have the honour to be
Sir,

Yours most obedt

Wheaton

Public Works Department

PROCEEDINGS of the MADRAS GOVERNMENT.

UNDER date the 30th March 1876.

Read the following:—

From
The Cons. Engineer
for Railways { *(H.C. No. 136 of 16 March 1876)*

His Grace the Governor in Council approves of alteration being made to give increased strength to draw bars; and further directs the strength of an unbroken draw bar to be tested by increasing either by application of dead weight or by application of falling weights (1) weight with which permanent

Circulated
for information and
orders.

AM

28-12-74 911: Feb 1/76. orig.

28-12-74 1876 1876

RAILWAY DEPARTMENT.

From

The Consulting Engineer for Railways,

To

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

Dated

16th Dec 1876

3/1/76
No. 136

Subscribed to

from the report of
the S. E. Dept. with
reference to defects
draw bars of engines.

alteration of
increased strength of
Test on timber
drawbar - This is
breaking the axle
strength
i.e. weight at which
permanent fracture
commences
weight at time
of fracture.

If the weight is
not sufficient to
break the axle - the
weight should be
increased until the
axle is broken.

B.C.

Ph
30 March 1876
493
21-2-76

Permanent extension
commences.

(2) Receipt concerning
fracture.

2. An receipt of report
of the point as com-
pared with reasonable
test ring strain and
with the receipt actually
drawn at time of
fracture of bar on line
further instructions
will be issued.

AMM

493/4

The Cons. Engineer
for Railway
Dated - 10. April 78

2004
Govt. of Madras.

PUBLIC WORKS.

To

The ~~Amr~~ ~~Eng~~ ~~for~~ ~~the~~

Dated

Issued

Recd

Encl.

G. O., 30th March 1876, No.

809

Nos. 1193 & 1194-

Draw bars of Engines.

S. L. P. — Certain alterations being made to increase the strength of the — approved; instructions issued for testing the strength of an unbroken draw bar.

25-4-76

20/10 - 10, 10/10/78