

Public Works (1893) Department.

RAILWAY BRANCH.

G.O., No. 69 R

DATED 16th January

[Despatch Abstract.]

Madras Railway

Orders of the Govt. of India on the subject of fixing the new 7 1/2 lb rails on the — with heavy fish plates and bolts, communicated to the Consulting Engineer for report.

BACK PAPERS.

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FURTHER PAPERS.

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

16TH JANUARY 1893, No. 69 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

From the Secretary to the Government of India, Public Works Department (Railway Stores), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 30th December 1892,
No. 485 R.S.

I am directed to acknowledge the receipt of your letter No. 2637 R., dated the 7th November 1892, forwarding copy of the Proceedings of the Government of Madras on the subject of fishing the new 75 lb. rails on the Madras Railway with heavy fish plates and bolts and requesting the orders of the Government of India on the programme to be adopted for the work.

2. In reply I am to say that this appears to be a matter which should be settled by the Agent of the Railway and the Consulting Engineer under the orders of the Government of Madras.

ORDER—dated 16th January 1893, No. 69 R., Public Works.

Communicated with reference to Proceedings No. 2636 B., dated 7th November 1892, to the Consulting Engineer for Railways for report after consulting the Agent and Manager, Madras Railway, as to the best programme to be adopted.

(True Extract.)

Major, R.E.,
Offg. Under-Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
 „ Examiner, Guaranteed Railway Accounts.

Exd. S. J. Pereira.
Spare Copies

RAILWAY.

Govt. of {1893} Madras.

PUBLIC WORKS.

Dated January, 16th.

Recd.

Encl.

G.O., 16th Jan. 1893, No. 69 R.

JANUARY.

Madras Railway

Orders of the Government of India on the subject of fishing the new 75 lb. rails on the — with heavy fish plates and bolts, communicated to the Consulting Engineer for report.

No. 485 R. S.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Stores.

All communications
should be addressed to
the Secretary.

To
The Joint Secretary to the Government
of Madras, Public Works Department
Railway Branch.

Calcutta, the 30th December 1892.

Sir,

I am directed to acknowledge the receipt of your letter No. 2637 R. dated the 7th November 1892, forwarding copy of the proceedings of the Government of Madras on the subject of fishing the new 75 lb rails on the Madras railway with heavy fish plates and bolts and requesting the orders of the Government of India on the programme to be adopted for the work.

2. In reply I am to say that this appears to be a matter which should be settled

P. W. CURRENT No. 124

settled by the Agent of the railway and the Consulting Engineer, under the orders of the Government of Madras.

Your most obedient servant,

Höflichkeit

Secretary

Documents Accompanying

Kil.

Res.: 9. 1. 53

Nº 2636-7 Ray 7-11-92 ✓

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No. 69 R 2 16. Jan'y 193.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Letter from the Comr. of H.E. No. 486 D.S. of 30 Dec. 1892
of India, O.H. Dept. 7, P.

Communicated,

with reference to Prof. No.
2636 R, dated 7th November
1892, to the Consulting
Engineer for Railways for
report after consulting
the Agent & Manager ^{proposed} ~~existing~~
Railways as to the best ~~method~~
~~of settling the matter~~
to be adopted

Mr. ¹⁰/₁ OR

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

From the Consulting Engineer for Railways, dated 31st October 1892, No. 779.

From the Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, dated Madras, 22nd October 1892, No. 7390/901.

Referring to para. 2 of G.O., No. 2178 R., dated 8th ultimo, forwarded with your letter No. 824, dated 23rd idem, in which the fishing of the new 75 lb. rails with the heavy fish-plates and bolts is directed, I have the honour to quote the following report from the Chief Engineer describing the method in which he proposes to carry out this work :—

"The system adopted for renewals with steel rails consists of inserting these continuously in the main line on both sides of each station at a rate per mensem which will release a sufficient quantity of iron rails for renewals at isolated places in the main line on the lengths between stations for the same period.

"The aggregate of the portions so laid with steel rails on each division up to the 31st March 1892 is as follows :—

					M.L.
1st division, South-west Line	...	...	...	...	107
2nd do. do.	...	...	...	...	37½
3rd do. do.	...	...	...	...	39½
4th do. do.	...	...	...	...	29½
1st do. North-west Line	...	...	...	...	54½
2nd do. do.	...	...	...	...	26½
Total ...					293½

"Out of this mileage 18½ miles have already been provided with the new type of fish-plates and 1" bolts, leaving a balance of 274½ miles still to be fitted with them. I would here point out that in connection with the Consulting Engineer's remark that 'it was a mistake not to have got out the proper complement of plates and bolts when the new rails were ordered' the small quantity of the new type of fish-plates were sent out for trial and it was not contemplated to introduce this type throughout the whole line until sufficient time had lapsed to enable their efficiency to be thoroughly tested. They have now been found much superior to the old type and accordingly a large number were included in the indent for permanent-way for the ensuing year sufficient for renewals on 94 miles, which is approximately a third of the mileage (274½ miles) remaining to be renewed. In this way it was intended to distribute this heavy charge (Rs. 1,68,337) on maintenance over three years, by the end of which period a further third or 94 miles (the renewals of iron by steel rails being approximately 31½ miles per annum) would have to be provided for, but the balance will be completed in 4 years and the work then become current.

"The programme laid down in this office was accordingly to spend one-third (or Rs. 57,000) of the total cost of this work in each year, allotting to each division a proportion corresponding with its mileage of steel rails."

2. I shall be glad to hear that the proposed programme has the approval of Government.

3. Provision for the necessary expenditure will be made in the half-yearly establishment estimates.

Submitted to Government with reference to G.O., No. 2178 R., dated 8th September 1892.

2. The Agent and Manager, Madras Railway, reports that, on the 31st March 1892, 271½ miles of line were relaid with new steel rails connected with the old type of fish-plate. It is proposed to substitute the new pattern of fish-plate throughout

* Includes whole of up-line between Madras and Arkonam originally laid.

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No 69 R 2/16-Jan/93.

the above length at a cost of Rs. 1,68,337, the charge being distributed over three years. According to the programme put forward 94 miles are to be re-fished the first year, 94 miles the second and the balance of the 274½ miles the third year. The ordinary renewals of the old iron by steel rails is approximately 31½ miles per annum, so that, while the 274½ miles are being re-fished, a further length of $(3 \times 31\frac{1}{2})$ 94½ miles will require similar treatment at the expiry of three years or in 1895. It will consequently take four years to bring the substitution of new fish-plates current with the rail renewals.

3. It will be observed that the above programme apparently contemplates first fishing the 94 miles of rail renewals to be carried out during the first three years with the old pattern plate and the replacement of these during the fourth year by the new type of fish-plate. This arrangement involving the double fishing of 94 miles does not appear to be either economical or from an engineering point of view advisable and it would seem better to use the new type of fish-plate in all future renewals of rails and devote the balance of the 94 miles of fish-plates (i.e., $94 - 31\frac{1}{2} = 62\frac{1}{2}$ miles) to strengthening the joints of the steel road already laid. The estimated cost of the work, viz., Rs. 1,68,337, only covers the cost of fishing 274½ miles, whereas, according to the Chief Engineer's programme, about 369 miles will have to be re-fished.

4. On the whole, I am not prepared to support the programme above detailed and consider it decidedly preferable to do the whole work in one or two years and so shorten the period during which the new rails are subjected to the excessive stress consequent on an imperfect joint. An indent for 94 miles of the new type of fish-plate is already before the Government of India as per G.O., Nos. 2216-17 R., dated 13th September 1892, so if the proposal to do the whole work in one or two years is approved a supplementary indent should be submitted:

ORDER—dated 7th November 1892, No. 2636 R., Public Works.

Ordered that the orders of the Government of India be obtained on the subject.

(Here enter No. 2637 R., Public Works, dated 7th November 1892.)

(True Extract.)

(Signed) F. B. WALKER,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Guaranteed Railway Accounts.

LETTER—to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 7th November 1892, No. 2637 R.

I am directed to forward a copy of the Proceedings of this Government No. 2636 R., dated 7th November 1892, on the subject of fishing the new 75 lb. rails on the Madras Railway with their heavy fish-plates and bolts, and to request, with reference to para. 2 of G.O., No. 2178 R., dated 8th September 1892, on the report on the inspection of that line for the half-year ended 30th June 1892, copy of which was forwarded to the Government of India with Public Works Department endorsement No. 2179 R., of the same date, that the Government of India will be pleased to issue orders as to the programme to be adopted. The Madras Government concurs in the views expressed by the Consulting Engineer for Railways and recommends that the whole work of substituting the new pattern of fish-plates and bolts be carried out as early as possible.

(Signed) F. B. WALKER,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Encl. A. D. Xavier.
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RAILWAY.

Govt. of (1892) Madras.

PUBLIC WORKS.

170
Dated November, 7th.

Recd.

Encl.

G.O., 7th Nov. 1892, Nos. 2636,
2637 R.

NOVEMBER.

Madras Railway

Requesting orders on the programme of
fishing all the new 75 lb. rails on the —
with the new pattern of fish-plates and
bolts.