

Marine (1897) Department.

G.O., No. 401 Marine

DATED 30 April 1897

[Despatch Abstract.]

Vizagapatam Harbour

Remarks of the Senior Govt. Inspector regarding
— in his inspection report of the East Coast
Railway for the half-year ending 31-12-96,
communicated to the Presy. Port officer and
the Supdg. Engineer I circle for information.

BACK PAPERS.

FURTHER PAPERS.

Marine (1897) department.

Current-Number: 507
RAILWAY.

Government { 1897 } of Madras.
PUBLIC WORKS.

Recd. 3. 4. : } 1897.
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Enclosures

Spare copies

G.O., No. 187 R., 22nd March 1897.

MARCH

Communicated to
the Presidency Sub officer
and the Safety Eng^r.
Circle for information
with reference to paragraph
13 of the Inspection Report.

Shippo to 28 pms. 30/4/97
S. E. C. W. 24547

East Coast Railway

The Senior Government Inspector's report of inspection of the — for the half-year ended the 31st December 1896, communicated to the Manager of that Railway for necessary action, and a copy of the Proceedings ordered to be forwarded to the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

EAST COAST RAILWAY.

STANDARD GAUGE 5' 6".

Inspection Report for the half-year ended 31st December 1896.
Mileage open—489 miles.

The inspection was made between the 28th January and the 3rd February. The Manager and other railway officers were present.

1. *General.*—I understand that funds allotted to open line have been cut down to a minimum and that many works which it would be desirable to carry out have had to stand over for the present.

2. *Formation.*—The banks and cuttings are generally in good order. Formation still requires to be raised at one or two of the new bridges between Bezwada and Ellore.

3. The drains recommended to be cut in certain station yards have been completed.

4. The deep cutting at Ross Hill near Vizagapatam is getting very unsafe, and I request that it be closed for traffic and the swamp line only be used.

5. The drainage of cuttings still requires attention in some instances. The stone ballast wall recommended in previous reports should be used instead of earth drains.

6. *Bridges and Culverts.*—The additional waterway between Bezwada and Ellore rendered necessary by the floods of 1895 has been completed.

7. Tie-bars and transoms are required at bridge of nineteen spans of 70 feet in mile 301 and at bridge of four spans of 100 feet in mile 261.

8. The pipes which have been left for drainage in the pile bridge on the swamp line (now closed) should be fitted with shutters, so that water may be forced out on the ebb through the bridge of three spans of 40-foot girders further up the line, which at present is doing very little duty. A channel should also be dug from one bridge to the other to assist the scouring action.

9. A bridge over the Gódávri has been sanctioned and preliminary operations are in progress. The bridge will span the full width of the river and will consist, I understand, of fifty-five spans of 150 feet girders. A site has been finally selected a little below the club.

10. *Ballast and Permanent-way.*—The line is much in need of ballast. The section from Bezwada to the Gódávri is the worst off in this respect, but more ballast is also wanted at many places between Chicacole road and Sompéta, and between Golanthra and Berhampur. I noticed at a good many places on the Northern section that the ballast train seems to have been badly worked, too much being put down in some places and too little in others. I understand that the Local Government proposes to establish famine-relief works at several of the quarries in Ganjam near the railway, if it can be utilized. The railway should be able to absorb a large quantity of this ballast, both on the main line and on the Puri branch, where it will be much needed in the monsoon. The adjustment of funds might lie over till next financial year.

11. The steel sleepers have been removed from badly-drained cuttings and station yards as recommended in a previous report.

12. The turn-outs referred to in paragraph 10 of the last report have been put right, but the curve at mile 306/21 has not been done as yet.

13. *Stations, platforms, etc.*—Much remains to be done towards promoting the comfort and convenience of native passengers (*vide* Government of India Circular, No. 14 R. of 10th July 1895). Waiting-room accommodation is deficient at some of the larger stations. Fruit stalls should be provided either in the waiting-shed or in a separate building outside the station where the waiting-shed is too small. A good design in use on the Madras Railway might be adopted. The latrines should be lighted at night and direction figures should be painted either on the lamps or on the latrines, which latter should be screened off to secure privacy. Stand pipes should be erected at all watering stations.

14. Rules have been introduced to regulate the use of goods wagons.

15. Direction boards are wanted over the doors of the different offices and waiting-rooms, etc.

16. The complaint books at the different refreshment-rooms were examined and found satisfactory.

17. *Kadiam.*—The platform coping needs repair.

18. *Cocanada Town.*—The waiting-room and booking office require replastering.

19. *Cocanada Port.*—A cross-over road is wanted from the second to the third line to save unnecessary shunting. The fourth line is used as a sick-siding and I am informed that on more than one occasion damaged vehicles have been taken from it by mistake and run on the main line. A separate sick-siding should be laid off the crane line. A siding is also required to join up with the line along the canal. It could take off at the end of the platform and pass behind the goods-shed: this would be a convenience and would save shunting.

20. *Samalkot Junction.*—Verandah and waiting-rooms require reflooring. Another waiting-room is much wanted here; also a fruit stall for natives.

21. *Waltair.*—The entrance hall is much too small to serve as it now does as a waiting-shed, goods-shed and third-class refreshment-room. A goods-shed should be built and a proper fruit stall provided.

22. *Vizagapatam.*—Goods-shed and sidings completed.

23. *Vizagapatam Harbour.*—The reclamation work which has been in abeyance for some time will now be continued, the Harbour Board having made over their contribution of Rs. 20,000. A goods-shed will be built immediately. I understand that a company has been formed to improve the harbour. I believe this could best be done by erecting sluices at the site of the pontoon bridge where the river is narrowest, and letting out the water at low ebb tide. The scour produced would probably soon deepen the bar, if assisted by a groyne starting from the present quay wall and carried out to the bar thereby confining the current.

24. *Khurda Road.*—Very good progress has been made. The station building is complete except the roof; and the engine-shed with stabling for four engines is also nearly finished. Eight blocks of quarters for superior staff are ready. Well is down 70 feet and has 37 feet of water, but the supply will have to be supplemented from the existing well at the temporary engine-shed. The turn-table has been erected, but I question whether it could not have been more conveniently placed for working the Puri branch. I understand that the plan of the yard is not finally settled. It would seem more convenient for working, if the goods sidings were drawn to a shunting neck at each end.

25. *Parlakimedi Road.*—The siding wants lifting.

26. *Signals.*—I understand that the List-Morse system of signalling is to be used on the Bezwada-Madras Railway. I would suggest that the same system should be also introduced on the East Coast Railway and that the home signals be moved to the points, at junction stations especially.

27. The system of carrying the signal wires on pulleys attached to the rails has not been a success on this railway. The pulleys get broken and choked with ballast, and the signals at several stations worked very stiffly. I recommend that the ordinary carriers which are in stock be used, supplemented on curves by large horizontal pulleys on stout wooden carriers.

28. The semaphores at Seetanagaram engine-shed junction have been interlocked with the switches as requested in last report. A fixed point has been put in at the entrance to the Bezwada-Madras Railway store-yard, a description of which recently appeared in *Indian Engineering*.

29. The distant signal at Gódávári South requires a stop.

30. *Sinháchalam Junction*.—A four-armed signal (one arm of which is unnecessary) is erected at the signal box and the usual distant signals are pulled from it. All trains are ordered to stop dead at the junction which makes it safe for the present, but this rule will be found inconvenient when traffic expands; and a proper system of interlocking should be designed to be put in hand when required. The distant signal for trains coming for the south requires a repeater.

31. *Khurda Road junction*.—The four-armed signal on the platform should be removed and home signals erected at the outer points and detectors fitted to ensure that points are correctly set and that signals for main line and branch cannot be given simultaneously.

32. *Ferries*.—The new steamers "Rajahmundry" and "Kavur" have replaced the "Dorothy" and "Helen" and save about 20 minutes in the crossing.

33. *Workshops, etc.*—A wall or fence round the shops at Waltair would prevent malingering and theft. The cross-over road from the turn-table line to the through line should be reversed and the dead-end put in again.

34. The shops are now well-supplied with machinery, but apparatus for lifting engines is still much wanted. The present arrangement of packing up engines is costly, takes a long time, and, unless very carefully looked after, is dangerous.

35. I was shown a consignment of horn-plates recently received from England, the holes in which had all to be rebored owing to their not being correctly made to template, also some pieces connected with the fittings of the vacuum brake, one of which was badly flawed in several places. I suggest that these matters be reported to the India Office and specimens of the defective work sent with the report.

36. *Rolling-stock*.—The tube plates of the compound engines are beginning to fail and several have already had to be patched. In other respects, they seem to be working well.

37. The suggestion made in paragraph 31 of the previous report is, I think, a good one, having in view the large amount of shunting which is rendered necessary by the arrangement of station-yards at the larger stations.

38. *Traffic*.—With the saving in time in crossing the Gódávári, the time-table might be revised. The present timing appears to provide for shunting at every station which rarely happens to be the case. It would be better to allow for shunting at one station out of, say, six, and reduce the halts at the others to 2 or 3 minutes. Even if trains did run late more frequently, the public would, on the whole, be a gainer.

39. Advantage was taken of this inspection to visit Bimlipatam. I was accompanied by Mr. Beckett, the Engineer in charge of the survey. The line he was running ran to the north of the road and presented no particular difficulties. He expected to obtain gradients not steeper than 1 in 150. One bridge of about 5 spans of 100 feet would be required. A good site for a terminal station at Bimlipatam is obtainable. The alternative route *via* Alamanda was not examined, but it appears to be easier country, and the only large bridge is avoided.

MADRAS,
18th February 1897.

(Signed) F. D. FOWLER,
Senior Govt. Inspector of Railways.

ORDER—No. 187 R., dated 22nd March 1897.

Communicated to the Manager, East Coast Railway, for information and necessary action.

2. A copy of these Proceedings will be forwarded for the information of the Government of India.

[Here enter No. 188 R., dated 22nd March 1897.]

(True Extract.)

Offg. Under Secy. to Government,
Railway Branch.

To the Manager, East Coast Railway,
Director-General of Railways.
" Marine Department.
" Engineer-in-Chief, Gódávári Bridge.
" Revenue Department.

Exd. T. K. Narayana Aiyangar.