Public Works (1894) Department.

RAILWAY BRANCH.

G.O., No. 217R

DATED 10th April

[Despatch Abstract.]

Inspection report of the Southern Mahratta Railway (including the Mysore, Kolapur & Bellary-Kistna State Railways)— Letter from the Govt of Bombay, Public Works Department, Railway branch, forwarding Copy of the periodical — Second half of 1893, recorded.

Indexed.

[P. W. Ey. 1,000—11-8-99.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	1258 R		17-10-93				

FURTHER PAPERS.

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

SOUTHERN MAHRATTA RAILWAY SYSTEM.

(METRE GAUGE.)

TOTAL MILEAGE OPEN FOR TRAFFIC (1,555 MILES).

Inspection Report by Major H. O. Selby, R.E., Government Inspector of Railways, Bombay, for the half-year ending 31st December 1893.

The inspection of this system was made between 16th and 31st January 1894. The whole inspection was made by day-light in a special train, and I was accompanied throughout by Colonel Lindsay, R.E., the Acting Agent, the Chief Engineer, the Locomotive Superintendent, the Traffic Manager, and the Chief Medical Officer. I also saw the district officers of the various sections within the limits of their own charges.

2. Speaking of the system generally the line, works and rolling stock are well maintained and in good order. Appendices A, B and C to this report give the details of the renewals of rails, sleepers and ballast during the half-year under review.

3. **Fencing.**—Most of this system is unfenced; where fencing exists it consists of (*a*) dry stone walling, (*b*) iron wire or (*c*) live fencing. The dry stone walling seems difficult to maintain as the villagers easily remove it to make passages for themselves or their animals. I noticed a great many gaps in the walling on the ghâts near Poona and near Salpa. The iron wire fencing is generally well maintained. I found that the Acting Agent had taken energetic steps temporarily to close up the gaps that have been left at every level crossing and to man the crossings; but I agree with the Acting Agent in thinking that an estimate should be submitted for completing the fencing at these gaps. I concur generally with the remarks made by Mr. Dyson in his report for the first half of 1893 as regards the aloe fencing. I do not think that a satisfactory job can ever be made of a live fence in the districts served by the Southern Mahratta Railway, and, so far as I am able to judge, it is, in the long run, more economical and much more efficient to face the larger initial cost of iron wire fencing. Appendix D gives the details of the fencing existing on the system at the end of the half-year.

4. **Refreshment Rooms.**—The first class passenger traffic on the system is very small and that fact increases the great credit which I consider due to the management of the refreshment rooms. I inspected the complaint books in every refreshment room and found a complete absence of any complaint and a general expression of satisfaction, and at Guntakul Junction I got two of the best dinners I ever eat at any railway station in India.

5. **Signals.**—The out-door signals on this system are generally in good condition and well and clearly displayed. I saw all of them worked. In many cases, however, I might almost say in nearly all cases, in which Blood's Patent lever is in use wooden wedges have been driven so as permanently to fix the bell-crank lever against the chain, thus entirely defeating the whole object of the patent, which is to allow the idle pulley to give and take as the wire contracts, or expands with changes of temperature. Many of these wedges have evidently been made by the Engineering Department itself, and many are of old standing as they have been painted over when the levers themselves were painted. They should have been noticed and removed by the Engineers in charge of the various sections. The Chief Engineer is about to issue orders for their immediate removal; but only constant care on the part of the Engineers can prevent their being replaced, especially as some of the Permanent-way Inspectors seem quite ignorant of the principle on which the whole arrangement is based. At Badami the down distant signal does not come properly to danger owing to the wire being too short and the free pulley and weight not being in proper adjustment.

6. **Stations, Offices, Staff Quarters, &c.**—The various stations and offices are generally kept clean and neat by the traffic authorities, and the various time and fare tables are properly displayed, though I doubt whether confining the

fares charged to the system itself does fully satisfy the requirement of the Railway Act. There is however considerable doubt in my mind as to what the Act really intends, so I confine myself to noting that the fare tables only show the fares from any station to any other station on the system. I also noticed that several of the third class waiting rooms were inconveniently crowded with goods, in some cases so much so as practically to preclude their use by passengers. In some cases these goods were actually unbooked goods of which the Railway administration had not as yet taken delivery.

(*b*) As regards the staff quarters, especially at some of the larger stations, there is a general air of squalor and untidiness about them and a decided want of personal supervision; Bungalows with tiles off, windows with broken glasses, the glass being replaced with paper, pailings broken, or removed for burning. I also noticed that the staff of all degrees have been permitted to make all kinds of alterations and additions to their quarters apparently without check. The Acting Agent, who is as keenly alive as I am to the necessity for cleanliness, order and decency in the staff quarters, is about to take measures to improve this state of affairs by appointing committees at all the large stations, such committees to consist of representatives of all departments who shall be responsible for all matters of order, cleanliness and sanitation, and I trust that his efforts will meet with success. At the smaller stations the Engineering Department must exercise a closer supervision in the future than has been used in the past. I trust that future inspections will show a marked improvement in this matter. I think that all staff quarters and institutes should be properly and neatly fenced.

7. **Institutes.**—There are institutes at Dharwar, Hubli and Guntakul. That at Dharwar is too small, and the Acting Agent has submitted plans and estimates for its improvement. Hubli institute requires fencing. Guntakul institute wants the ground neatly fenced and also requires the ground cleared of debris and made tidy. There are no other regular institutes, though there is one sanctioned for Arsikeri. At other engine-changing stations there are rooms set apart in lieu of an institute; these minor institutes are generally branches, affiliated to the Hubli institute.

8. **Schools.**—There are at present no regular school buildings on the system, the schools being housed in rooms set apart for that purpose. At Hubli the school is in the Locomotive Superintendent's old office. At Dharwar it is in one of the buildings near the General Offices, at Bangalore in a staff quarter, and at Guntakul it is proposed to make a school-room in the tank-house which seems to me well suited for the purpose, and which, at present, is not used for any purpose.

9. **Locomotive Workshops, Hubli.**—I inspected these shops in company with the Locomotive Superintendent. Proposals are to be submitted for increasing the present accommodation. The shops are generally in good order and the machinery seems well cared for. Appendix E gives details of the works carried out on the shops during the half-year.

10. I concur with the general tenour of the remarks made by Mr. Dyson in paragraph 11 of his report for last half-year. I certainly think that it would be desirable to have the personal supervision of the Assistant Locomotive Superintendents on the districts, instead of having them all (except one) at Hubli. But I do not base my opinion on more engine failures. I think that both engines and staff will benefit by the presence of a responsible officer on each district, and the Locomotive Officer will besides be a useful member of the Local Committees to be appointed and mentioned in paragraph 6 of this report. As an instance of want of care on the districts I may mention that at one station the Acting Agent, the Locomotive Superintendent and I saw a travelling crane in use, that had the date of a recent inspection by a Foreman painted on it, and yet that very crane was deficient of every one of the four holding-down clips, and that it was evident from the fractures that the clips had been deficient for a considerable time, and this though the rules for the use of such cranes plainly lay down that they are not to be used without the clips, and those rules

were on this very crane. The whole question of the proper distribution of the Assistant Locomotive Superintendents is now under the consideration of the Acting Agent.

11. **Land.**—On some parts of this system there are more or less sufficient boundary stones; but I doubt if on any part the land is properly demarcated as required by the orders of the Government of India. Before taking any further steps I think it would be well to obtain a report by the Acting Agent on the whole question, showing how far, in each district, the land has been properly demarcated in accordance with orders.

12. **General Stores, Hubli.**—The general stores were very neat and tidy at the time of my visit.

13. **Poona Branch, Poona to Londa, 278 miles.**—The rails throughout are 41½-lb. flat-footed steel. The sleepers are wood as far from Londa as Belgaum, mileage 33, steel mostly of new pattern to mileage 40, wood to mileage 66, and thence steel to Poona except on the two ghâts, where wood is used; the branch seems fully ballasted throughout. The high banks on the ghât near Poona are being gradually widened.

The extra waterway required near Jejuri, and mentioned in paragraph 84 of the report for last half-year, has been reconsidered, and it is now proposed only to put in one 10′ girder opening, change one 20′ opening to two 20′ openings, to put one 6′ opening, and to make about ¾ of a mile of catch water drain.

In Appendix F will be found a statement of the Capital works begun, continued and ended during the half-year.

14. **Main Line, Frontier to Bezwada, 512 miles.**—From the Frontier to Castle Rock the rails are 60-lb. steel with special teak sleepers of heavy section. From Castle Rock to Bellary the rails are 41½-lb. steel, the sleepers being, Castle Rock to mileage 97, teak; thence to Gadag Junction old pattern steel; Gadag Junction to Bellary steel partly old and partly new pattern. Between Bellary and Guntakul Junction the line was converted from the standard to the metre gauge and consists of the old Madras Railway rails on Madras Railway pot sleepers. From Guntakul Junction the whole line is laid with 41½-lb. steel rails supported on steel sleepers up to Pendekallu, thence to Nandyal wooden sleepers are used, and thence onward new pattern steel except where sharp curves necessitate guard rails, in which case wooden sleepers are used. The whole line is in very fair running order except that between Cumbum and Bezwada I noticed that the running was rough and that many of the rails wanted straightening.

(*b*) Plan and estimates for improving Guntakul Junction are under consideration. It seems to me that the Madras Railway authorities should be moved to station a shunting engine at this station and so do away with the great amount of hand shunting over long distances that is at present done at this Junction.

Appendix G gives details of the Capital works begun, continued or ended on the main line including the Harihar Branch during the half-year.

15. **Southern Extension, Hubli to Harihar, 81¼ miles.**—The rails are 41½-lb. steel, the sleepers are of single teak as far as Haveri and thence to Harihar old pattern steel.

16. **Mysore State Railway, Harihar to Nanjangud, 311¼ miles.**—The line is laid with 41½-lb. steel sleepers and are Mysore teak sleepers except about 6 miles between Harihar and Arsikeri, where there are old steel sleepers; the running on the whole line is good. At Tiptur I noticed that the town was coming inconveniently near to the station. I think that the Darbar might be addressed in order to preserve an open zone at this place.

Appendix H gives details of Capital works commenced, in progress or completed on this section during the half-year.

17. On this line between Bangalore and Gubbi there are still many cuttings that seem to want sloping off as they appear to infringe standard dimensions. 24 of the cuttings on this length have already been so dealt with, and I think that sanction should now be applied for to do the rest.

18. **Mysore State Railway, Yesavantpur to the Frontier, 51¼ miles.**—The whole of this piece was constructed by the Mysore Darbár and the permanent way consists of 41¼-lb. steel rails on Mysore teak sleepers; the running on the line, the portion of which between Dodballapur (mileage 19¼) and the Frontier was only opened last September, is fair.

19. **Frontier to Guntakul Junction, 112¼ miles.**—This section was constructed by the South Indian Railway Company; it is laid with 41¼-lb. steel rails on steel sleepers. It is in fair running order, but on the 7 miles between the Mysore Frontier and Hindupur it is rough and many of the rails want straightening.

20. **Bridges.**—The bridges on the whole Southern Mahratta Railway system appear to be well maintained and I did not notice any that wanted painting or seemed to call for any special remark.

21. **Kolhapur State Railway, Miraj Junction to Kolhapur, 29¼ miles.**—The road consists of 41¼-lb. steel rails on new pattern steel sleepers; the line is fully ballasted and was in excellent order. The only work in progress is pitching near the Krishna and Panchganga Bridges which was about ⅓ finished at the time of my visit.

H. O. SELBY,
Government Inspector.

Bombay, 8th March 1894.

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22. The report is satisfactory, and I have no doubt that the Agent will give due and early consideration to the several points brought to notice by Major Selby. As regards the posting of Assistant Locomotive Officers to the several sections of the line, *vide* paragraph 10 above, the Agent has informed me that he has already given the necessary orders.

F. FIREBRACE, Lieut.-Colonel, R.E.,
Senior Government Inspector.

Bombay, 16th March 1894.

APPENDIX A.

SOUTHERN MAHRATTA RAILWAY.

Statement showing the miles of rails renewed during the half-year ended 31st December 1893.

Divisions.	Iron.				Steel.				Total.
	Double-headed weighing 75 lbs. per yard.	Bridge weighing 80 lbs. per yard.	Double-headed weighing 74 lbs. per yard.	Total.	Flat-footed weighing 41¼ lbs. per yard.	Steel weighing 40¼ lbs. per yard.	Steel weighing 82 lbs. per yard.	Steel weighing 40¼ lbs. per yard.	
	Miles.				Miles.				Miles.
Hubli Division ...	.....	.....	.....	.....	·130	.....	.....	.....	·130
Poona do. ...	.....	.....	.....	.....	·005	.....	.....	.....	·005
Bellary do. ...	.....	.....	.....	.....	·647	.....	.....	.....	·647
Kistna do. ...	.....	.....	.....	.....	·050	.....	.....	.....	·050
Mysore do. ...	.....	.....	.....	.....	·030	.....	.....	.....	·030
Kolhapur Branch ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total ...	.....	.....	.....	.....	·862	.....	.....	.....	·862

P. SCOTT,
Chief Engineer.

APPENDIX B.

SOUTHERN MAHRATTA RAILWAY.

Statement showing number of sleepers renewed during the half-year ending 31st December 1893.

Divisions.	Wood.								Iron.				
	Teak sleepers of various sizes.	Teak bridges of various sizes.	Crossing.	Creosoted pine 6' x 9" x 4½".	Australian 6' x 8" x 4".	Creosoted pine 6' x 8" x 5".	Creosoted pine 9' x 10" x 5".	Total.	Bowl sleepers. Oval.	Bowl sleepers. Round.	Wrought iron subway.	Steel.	Total.
	No.	No.							No.	No.	Lin. yds.	No.	No.
Hubli Division	4,505	...	...	...	...	...	...	4,505	...	...	...	634	634
Poona do.	2,980	...	6	...	1,149	...	...	4,135	...	...	...	(a)10,368	10,368
Bellary do.	...	228	1	...	...	127	...	356	...	...	...	515	515
Kistna do.	81	1	2	...	...	...	...	84	...	...	...	35	35
Mysore do.	6,782	...	...	76	...	...	...	6,858	...	...	...	...	...
Kolhapur Branch	...	...	2	...	...	...	...	2	...	...	...	4	4
Total ...	14,348	229	11	76	1,149	127	...	15,940	...	...	...	11,556	11,556

(a) The majority of these are in replacement of wooden sleepers.

P. SCOTT,
Chief Engineer.

APPENDIX C.

SOUTHERN MAHRATTA RAILWAY.

Statement showing the quantity of ballast collected and spread during the half-year ended 31st December 1893.

Divisions.	Quantity. Collected.	Quantity. Spread.	Remarks.
Hubli Division ...	94,702	193,130	
Bellary do. ...	143,231	117,168	
Poona do. ...	468,336	460,645	
Kistna do. ...	340,022	614,044	
Mysore do. ...	458,323	543,710	
Total ...	1,504,614	1,928,697	

APPENDIX D.

HUBLI DIVISION.

Statement showing length of line fenced.

Locality. From	Locality. To	Description of fencing.
Main Line.		
3½	74½	Wire fencing.
Harihar Branch.		
10½	15½	Wire fencing.
Poona Branch.		
½	17½	Wire fencing.

POONA DIVISION.

Statement showing length of line fenced.

Locality. From	Locality. To	Description of fencing.
33	54	Wire fencing.
62	67½	Do.
210½	223	Masonry and aloe.
236	241	Do.

P. SCOTT,
Chief Engineer.

Bellary Division.

Statement showing length of line fenced.

Locality.		Description of fencing.
From	To	
Main Line.		
111¼	122	Aloe.
161½	167	Wire fencing.
169	172	Do.
183½	188¾	Do.
201	234	Wire, masonry and aloe.
Bijapur Branch.		
¾	9½	Aloe.
57¾	62½	Wire, aloe and masonry.
111½	114	Wire and masonry.

Mysore Division.

Statement showing length of line fenced.

Locality.		Description of fencing.
From	To	
155¾	296½	Aloe.

Kistna Division.

Statement showing length of line fenced.

Locality.		Description of fencing.
From	To	
	Nil.	

APPENDIX E.

Statement showing the works put in hand or completed in workshops by Engineering Department during half-year ended 31st December 1893.

Name of Shop.	Item No.	Description of Work.	Remarks.
50HP Engine-room	1	Overhead girders to be painted ...	Completed.
Workshop yard ...	2	Surroundings of Locomotive Superintendent's Office to be finished off particularly on the north and south sides.	Requires further attention in the way of clearing earth-work, &c. (taken in hand).
Carriage ...	3	Construction of two carriage examining pits.	Completed, but pits not drained.
Erecting ...	4	Extension of two engine pits for valve setting.	In hand.
Do. ...	5	Two additional pits for weighing engines.	Do.
Do. ...	6	Walls for carrying overhead travellers to be partially rebuilt.	Two arches completed; crane is now being tried.
Do. ...	7	Erection of tender shed ...	In hand.
Boilershop ...	8	One new radial drilling machine obtained for tube plates received and erected.	

20th January 1894.

W. SARGEAUNT.

APPENDIX F.

SOUTHERN MAHRATTA RAILWAY.

Poona Division.

List of Capital works on open line during the half-year ended 31st December 1893.

Names of Works.

Commenced.

Protective work for the embankment of the Udgaon Bridge (Kolhapur State Railway).
Goods shed and siding at Kudchi.
Extension of the existing siding, loading bank and platform at Shedbal.
Additional goods accommodation at Belgaum.
Addition to bridge at mile 194-17.
Permanent station at Neera.
Huts for 2nd gatemen at level crossings at miles $\frac{38}{17}$, $\frac{33}{13}$, $\frac{33}{16}$ and $\frac{34}{18}$.
Quarters for the fuel staff menials (6 units) at Walhe.
Do. for fuel clerk at Walhe.
Improvements to the Locomotive Foreman's Bungalow at Belgaum.

In progress.

Protective works, Kolhapur Section.
Locomotive Foreman's Bungalow, Ghorepuri.

Completed.

Earth-work, Poona Junction.
Ballasting, Poona Junction.
Fencing dangerous parts of the line.
Additional works, Poona Junction.
Permanent watering arrangements at mile 74.
Double line bridge 1-20′ girder in the station yard at Walhe.
Paving the goods shed, Poona Junction.
Catch water drain and double 3′ culvert at mile 259½.
Goods shed extension of sidings and approach road at Dhupdhal.

P. SCOTT,
Chief Engineer.

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APPENDIX G.

SOUTHERN MAHRATTA RAILWAY.

HUBLI DIVISION.

List of Capital works on open line during the half-year ended 31st December 1893.

NAMES OF WORKS.

Commenced.

Constructing reservoir and laying pipes in connection with water-supply, Hubli.
Bungalow for Inspector of Works, Hubli.
Bungalow for Depôt Storekeeper, Hubli.
Engine pits in workshop, Hubli.
Coal siding, Hubli.
Bungalow for Permanent-way Inspector, Alnavar.
Valve-setting and Engine-weighing pits to be covered, Hubli.
Compound wall to Bungalows of Traffic Inspector and Travelling Inspector of Accounts, Hubli.
Transparent roof tiles for foundry, grinding and machine shop, Hubli.
Menials' quarters, 8 units, for Locomotive, Londa.

In progress.

Shed for storing plate and sheet iron at Hubli.
Permanent-way, Hubli yard.

Completed.

Assistant Station Master's quarters, Dundur.
Goods shed, Khanapur.
Pits for examination carriages at Hubli.
Extension of dead end siding at Kumbargauvi.
Compound gates and railings, workshop yard, Hubli.

BELLARY DIVISION.

Commenced.

Booking office and latrine at Lachyan.
Tranship goods platform and extension of loading platform, &c, at Gadag
Water-supply to staff quarters at Gadag.
Foot bridge for passengers at Dharmavaram.

In progress.

Two feet covered drain at mile 124—18, main line.
Booking office and latrine, Lachyan.
Tranship goods platform and extension of loading platform at Gadag.
22 units of menials' quarters at Bellary.

Completed.

Store-room to the Assistant Station Master's quarters at Gadiganur.
Raising the rails of the girder bridges between Guntakul and Dharmavaram.
Dead end siding at Tornagallu.
Closing in the weather side of the tranship shed at Hotgi.

KISTNA DIVISION.

Commenced.

Quarters for the Locomotive and Traffic Departments at Guntakul.
Additional staff quarters for Locomotive and Traffic Departments at Donakonda.
Tranship platform and siding for coal at Guntakul.
Raising and fencing the passenger platform at Narasaravupet.
Do. do. at Mangalageri.
5-40′ span to the present 1-40′ bridge at mile 468/5.
Do. do. at mile 475/5.
2-40′ bridge at mile 474/3.
2-20′ do. 256/2.
1-10′ do. 376.

In progress.

Approach road with overbridge at the east end of Guntakul Station.
Additional waterways between Nundyal and Rungapuram.

Completed.

Watering arrangements, Donakonda.
Do. Santamagulur.
Bogie weigh bridge and house at Guntakul.
Completing the line from Cumbum to Gundlakamma with full section of ballast.
Permanent Way Inspector's Bungalow, Narasaravupet.
Extending waiting shed and providing palisade fencing to the platform at Vinukonda.
Hand railing bridges.
Fuel stages and levelling ground at Tadepalli.
Providing buckets for watering horses at Guntakul.
Resurveying Bellary-Kistna Railway land.

APPENDIX H.

SOUTHERN MAHRATTA RAILWAY.

MYSORE DIVISION.

List of Capital works on open line during the half-year ended 31st December 1893.

NAMES OF WORKS.

Commenced.

Enlargement of the goods shed at Tiptur.
Watering arrangements at Dodbele.
Extending the siding at Mudgere.
Erecting latrine for natives at do.
Additional siding in the goods shed yard at Bangaloro.

In progress.

Erection of boundary-marks between Haribar and Gubbi.
Additions and altorations to the workshop at Bangalore.
Goods shed and sidings at Gubbi.
Do. do. Maddur.
Do. do. Holalkere.
Do. do. Davangere.
Fire-engine shed at Arsikeri.

Completed.

Additional siding in the station yard at Bangalore.
Additional siding in the goods shed yard at Bangalore.
Goods shed and horse and carriage dock at Kadur.

P. SCOTT,
Chief Engineer.

No. 613 A OF 1894.

P. W. DEPARTMENT, RAILWAY BRANCH:

Bombay Castle, 31st.March *1894.*

To

The Joint Secretary to the Government of Madras,

Public Works Department,

(Railway Branch)

Sir,

I am directed to forward, for your information, copy of the periodical Inspection Report of the Southern Mahratta Railway (including the Mysore, Kolhapur and Bellary-Kistna State Railways) for second half of 1893.

I have the honor to be,

Sir,

Your most obedient servant,

H.O. Selby

Under Secretary to Government.

Document-accompg:

4 Copies of Inspection Report referred to.

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P.W.D. 2776/94

P. W. CURRENT No. 2775

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Rec'd: 9.4.94

217R 10th April 1894

No. 217R 10th April 1894.

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