

Public Works (1897) Department.

G.O., No. 521 R

DATED 29. July 1897

[Despatch Abstract.]

Capital and Revenue Account of the Madras Railway

G.O. of India letter forwarding copies of a review on the — for the half year ending with the 31st December 1896 and inviting attention to paragraphs 9 and 10 thereof Comptroller to the Audit & Finance Madras Railway.

for
G.O. 3897

P.W. 25.
[5,000—60-11-66.]

Indexed.

5/8/97

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

Forwarding Copies
of a — for the half-year
ending with the 31-12-96.
& inviting attention to
paras 9 & 10 thereof.

Agent & Manager of the Ry.
E. J. R. Adams

Finckley

FURTHER PAPERS.

MADRAS RAILWAY (INCLUDING THE KOLAR GOLD-FIELDS
RAILWAY AND THE MADRAS-ENNUR SECTION OF THE
BEZWADA-MADRAS RAILWAY)

for the half-year ending with the 31st December 1896.

The mean length of railway worked was 857.63 miles against 849.22 miles. Mean mileage worked and worked in the previous corresponding half-year. capital outlay. The increase in the mean mileage worked was due to the opening to traffic of the Madras-Ennūr section of the Bezwada-Madras railway on the 22nd February 1896. The total capital outlay, including suspense, on the mileage open to the 31st December 1896, was Rs. 12,24,46,18½ against Rs. 12,15,53,451 to the 31st December 1895.

2. The gross earnings from all sources showed a decrease of 0.91 per cent. The earnings under coaching fell from Rs. 23,91,389 to Rs. 22,81,799, but under goods they rose from Rs. 31,05,940 to Rs. 31,37,091, and under miscellaneous from Rs. 87,354 to Rs. 1,14,725.

The gross earnings per mean mile worked per week were Rs. 248 against Rs. 253 in the second-half of 1895.

3. The total number of passengers booked rose from 4,666,357 to 5,423,744, showing an increase of 16·23 per cent, while the Passenger traffic. earnings therefrom decreased by 3·63 per cent., and the passenger unit-mileage by 2·08 per cent. The number of passengers carried one mile per mean mile worked was 197,361 as compared with 203,571 in the previous corresponding period.

The decrease in the earnings, notwithstanding a large increase in the number of passengers carried, was chiefly due to the reduction in the third class passenger fare for short distances.

The average distance travelled by a passenger was 31·21 miles against 37·05 miles in the previous corresponding half-year.

The decrease of Rs. 33,458 under this head was chiefly due to the decline in the traffic in ordinary horses, carriages and dogs, and to the running of an abnormal number of special trains in the previous corresponding period.

4. The total tonnage of goods lifted showed an increase of 7·46 per cent. as compared with the second-half of 1895, having been 635,952 tons against 638,323 tons. As, however, the average lead decreased from 111·94 miles to 104·04 miles, the total ton-mileage decreased by 0·12 per cent. (the number of tons of goods carried one mile per mean mile worked being 83,210 against 84,142 in the previous corresponding period). But the earnings per ton-mile having increased from pies 8·34 to pies 8·43, the total earnings showed an increase of 1·00 per cent.

The principal fluctuations under "General merchandise" were an increase of 9,584 tons and Rs. 31,910 under "Rice not in the husk," due to an improvement in the traffic received from the South Indian and Southern Mahratta railways *via* Kát padi and Guntakal, respectively, as also in the traffic sent to the Great Indian Peninsula railway stations *via* Raichúr; of 15,951 tons and Rs. 82,563 under "Jawar and Bajra", due to the increase in the local

traffic (specially in cholera and cumbu) and in the traffic received from foreign lines; and a decrease of 5,357 tons and Rs. 71,565 under "Rice in the husk", due chiefly to the decrease in the traffic from Madras to the South-West line stations, owing to want of rain in the surrounding district; of 3,619 tons and Rs. 23,944 under "Gram and pulse," principally in the traffic received from the Southern Mahratta railway *via* Bangalore City; of 3,699 tons and Rs. 29,239 under "Provisions," mainly confined to the local traffic from stations on the South-West line between Erode and Calicut; of 2,768 tons and Rs. 19,962 under "Salt," due to the displacement of Madras salt on the Madras railway districts by Bombay salt despatched from Calicut and the other West Coast stations; and of 7,464 tons and Rs. 49,152 under "Timber," chiefly due to the falling off in the local and foreign traffic. There was, however, an increase of 12,693 tons and Rs. 16,940 under "Coal," due to the depletion of the stocks at the gold mines on account of the prevalence of cholera during a few weeks of the preceding half-year and to the increased consumption at the mines owing to a larger outturn by the old Companies and to the opening of several new Companies.

5. The increase in the earnings from miscellaneous sources amounted to Rs. 27,371, and was chiefly under "Mileage and demurrage of vehicles over foreign lines" and "Rent of stations jointly occupied."

6. The total working expenses amounted to Rs. 28,32,044 against Rs. 26,95,520 in the previous corresponding period. The principal fluctuations in the working expenses were an increase of Rs. 79,950 under "Maintenance of way, works and stations," of Rs. 29,727 under "Locomotive expenses," of Rs. 16,663 under "Carriage and wagon expenses," and of Rs. 9,308 under "Traffic expenses." The increase under "Maintenance of way, works and stations" was principally due to heavier renewals with 30-foot bull-headed 76 lb. steel rails, to the amount charged off for depreciation on bridge materials, and to the increased expenditure on sanctioned works; that under "Locomotive expenses," to the larger consumption and increased cost of fuel; and that under "Carriage and wagon expenses," to the renewal of a larger number of goods vehicles. The increase under "Traffic expenses" was mainly under station and train staff, due to the opening of the Madras-Ennūr section of the Bezwada-Madras railway; there was also an additional charge for the joint use of the Guntakal station.

7. The net earnings amounted to Rs. 27,01,571 against Rs. 28,89,163, giving a percentage for the half-year on the total capital outlay on open line of 2.21 as compared with 2.38 in the previous corresponding period.

Results of working and comparative cost of the several departments.

8. The statements appended to this review show:

(i) the results of working the Madras railway (including the Kolar Gold-fields railway and the Madras-Ennūr section of the Bezwada-Madras railway) during the second-half of each of the years 1891 to 1896, as compared with the results of working the Great Indian Peninsula railway (including the Wardha Coal, the Dhond-Manmád, the Khámgaon and the Amráoti railways) and the Oudh and Rohilkhand State railway during the second-half of 1896;

(ii) the cost of the several departments on the Madras railway (including the Kolar Gold-fields railway and the Madras-Ennūr section of the Bezwada-Madras railway) during the second-half of each of the years 1891 to 1896, as compared with the Great Indian Peninsula railway (including the Wardha Coal, the Dhond-Manmád, the Khámgaon and the Amráoti railways) and the Oudh and Rohilkhand State railway during the second-half of 1896.

9. From the first statement it will be observed that the percentage of working expenses on gross earnings, 51.18, was better than in any of the five previous corresponding half-years except the second-halves of 1893 and 1895.

The percentage of net earnings on capital outlay, 2.21, was higher than in any of the five previous corresponding half-years, except the second-half of 1895.

The percentage of freight upon capacity hauled, lowest class, 48.03, was lower than in any previous corresponding half-year, the figures for which are given in the statement, except the second-half of 1891.

The percentage of freight upon capacity hauled for goods traffic, 40.35, was lower than in any previous corresponding half-years shown in the statement.

10. From the second statement it will be observed that maintenance and locomotive expenses were comparatively high, probably due to the causes mentioned in paragraph 6 *ante*.

The consumption of fuel was higher than in any previous corresponding half-year shown in the statement, and higher also than on the two railways with which comparison is made. This is explained to be partly due to the coal being of somewhat inferior quality and to water difficulties which accounts for the higher consumption per thousand gross ton-miles. The increase per train-mile is said to be due to heavier loads being hauled.

The total carriage and wagon expenses per 1,000 vehicle-miles run by home vehicles, Rs. 11.21, were higher than in any previous corresponding half-year shown in the statement except the second-half of 1894, due apparently to an increase in the number of vehicles repaired.

The percentage of empty home vehicle-mileage on total home vehicle-mileage on home line, 23.74, was higher than in any previous period given in the statement except the second-halves of 1891 and 1895, and higher also than on the Great Indian Peninsula railway system (17.61) and the Oudh and Rohilkhand State railway (21.07) during the second-half of 1896.

Statement No. I.

Statement comparing the results of working the Madras railway (including the Kolar Gold-fields railway and the Madras-Ennūr section of the Bezwada-Madras railway) during the second-half of each of the years 1891 to 1896, also comparing the results with the Great Indian Peninsula railway (including the Wardha Coal, the Dhond-Mannād, the Khámgaon and the Amráoti railways) and the Oudh and Rohilkhand State railway during the second-half of 1896.

Item numbers of analysis.	Particulars.	MADRAS RAILWAY (INCLUDING THE KOLAR GOLD-FIELDS RAILWAY AND THE MADRAS-ENNŪR SECTION OF THE BEZWADA-MADRAS RAILWAY.)						GREAT INDIAN PENINSULA RAILWAY SYSTEM.	ODUH AND ROHIL-KHAND STATE RAILWAY.
		2nd-half, 1891.	2nd-half, 1892.	2nd-half, 1893.	2nd-half, 1894.	2nd-half, 1895.*	2nd-half, 1896.†	2nd-half, 1896.	2nd-half, 1896.
2	Mean mileage worked ... Miles.	839.30	839.22	839.22	839.22	849.22	857.68	1,490.47	801.51
...	Capital outlay ... Rs.	11,89,52,099	11,97,57,405	12,03,61,825	12,05,29,868	12,15,53,451	12,24,46,184	29,63,72,250	10,57,45,266
<i>Results.</i>									
...	Gross earnings (including steam-boat) ... Rs.	46,53,523	48,79,568	52,18,323	51,47,080	55,84,683	55,33,615	1,34,75,452	37,68,896
...	Gross earnings (excluding steam-boat) ... Rs.	46,53,523	48,79,568	52,18,323	51,47,080	55,84,683	55,33,615	1,34,75,452	37,68,896
...	Working expenses ... Rs.	26,98,424	26,59,485	26,37,589	26,91,555	26,95,520	28,32,044	136,89,568	21,85,615
...	Net earnings ... Rs.	19,55,099	22,20,083	25,80,734	24,55,525	28,89,163	27,01,571	47,85,884	15,83,281
...	Train-mileage ... Train-miles	1,283,304	1,274,602	1,342,258	1,234,068	1,294,063	1,275,064	4,083,539	1,064,828
...	Train-mileage per mean mile worked { Coaching ...	716	762	788	775	773	768	1,344	686
...	{ Goods ...	819	757	811	696	752	721	1,396	774
...	TOTAL ...	1,535	1,519	1,599	1,471	1,525	1,437	2,740	1,460
6	Percentage of net earnings (including steam-boat) on capital outlay ... Per cent.	1.64	1.85	2.14	2.04	2.33	2.21	1.61	1.50
17	Percentage of working expenses on gross earnings (including steam-boat) ... Per cent.	57.99	54.50	50.54	52.29	48.27	51.18	64.48	57.99
<i>General.</i>									
9	Gross earnings (excluding steam-boat) per mean mile worked per week ... Rs.	213	224	239	236	253	248	348	181
<i>Coaching.</i>									
63	Average sum received for carrying a unit one mile—lowest class ... Pies	1.65	1.64	1.64	1.64	2.11	2.10	1.94	2.50
79	Average cost of hauling a coaching unit one mile, per passenger unit ... Pies	1.03	1.03	0.90	0.89	0.96	1.04	1.75	1.49
23	Coaching earnings per train-mile ... Rs.	2.90	2.99	2.95	3.23	3.64	3.47	2.28	2.99
77	Average cost of hauling a coaching train one mile ... Rs.	1.55	1.62	1.40	1.52	1.45	1.53	1.66	1.60
69	Percentage of freight upon capacity hauled—lowest class ... Per cent.	45.10	52.79	49.61	58.13	50.66	48.03	42.34	34.18
<i>Goods.</i>									
...	Average sum received for carrying a ton of general merchandise one mile ... Pies	7.28	8.56	8.83	9.13	8.97	9.09	9.41	6.65
...	Average sum received for carrying a ton of coal (public) one mile ... Pies	5.14	5.34	4.15	4.19	4.89	4.83	2.95	3.78
93	Average sum received for carrying a ton of goods (including stores and coal carried both for Capital works and Revenue) one mile ... Pies	7.16	8.27	8.25	8.52	8.34	8.43	7.61	6.66
115	Average cost of hauling a ton of goods including stores and coal one mile ... Pies	4.25	4.41	4.30	4.67	4.48	4.70	4.51	3.89
91	Goods earnings per train-mile ... Rs.	4.09	4.53	4.62	5.10	4.87	5.07	4.18	3.96
113	Average cost of hauling a goods train one mile ... Rs.	2.43	2.42	2.41	2.80	2.61	2.83	2.48	1.98
104	Percentage of freight upon capacity hauled ... Per cent.	46.97	44.19	45.11	45.74	40.65	40.35	42.47	37.71
<i>Miscellaneous.</i>									
119	Percentage of coaching traffic on gross earnings ... Per cent.	37.45	39.22	37.41	40.78	42.82	41.24	33.90	43.49

* Including the Kolar Gold-fields railway.

† Including the Kolar Gold-fields railway and the Madras-Ennūr section of the Bezwada-Madras railway.

‡ Excluding charges incurred direct by the state.

Statement No. II.

Statement showing the cost of the several departments on the Madras railway (including the Kolar Gold-fields railway and the Madras-Ennūr section of the Bezwada-Madras railway) during the second-half of each of the years 1891 to 1896, in comparison with the cost on the Great Indian Peninsula railway (including the Wardha Coal, the Dhond-Mannād, the Khámgaon and the Amráoti railways) and the Oudh and Rohilkhand State railway for the second-half of 1896.

Item numbers of analysis.	Principal headings.	MADRAS RAILWAY (INCLUDING THE KOLAR GOLD-FIELDS RAILWAY AND THE MADRAS-ENNŪR SECTION OF THE BEZWADA-MADRAS RAILWAY.)						GREAT INDIAN PENINSULA RAILWAY SYSTEM.	ODUH AND ROHIL-KHAND STATE RAILWAY.
		2nd-half, 1891.	2nd-half, 1892.	2nd-half, 1893.	2nd-half, 1894.*	2nd-half, 1895.*	2nd-half, 1896.†	2nd-half, 1896.	2nd-half, 1896.
	Total gross ton-mileage ... Ton-miles	368,569,900	343,378,715	366,841,064	346,943,507	369,610,739	370,978,049	1,118,260,529	342,927,024
<i>MAINTENANCE OF WAY, WORKS AND STATIONS.</i>									
	Mean mileage maintained ... Miles	839.30	839.22	839.22	849.22	849.22	857.68	1,490.47	801.51
	Total miles of track, including sidings ... Miles	1,006.07	1,009.98	1,013.89	1,029.84	1,031.64	1,046.60	2,227.27	924.87
<i>Maintenance and renewal of permanent-way.</i>									
	Per mile of track, including sidings ... Rs.	309.44	358.10	254.09	216.32	222.40	257.45	443.14	252.08
137-a	Total maintenance expenses. Per mean mile of line maintained ... Rs.	858.02	929.49	724.29	702.88	697.98	783.49	1,516.04	777.30
137-b	Per mile of track, including sidings ... Rs.	715.80	772.34	599.51	579.60	574.56	642.07	1,014.52	673.62
137-c	Per 1,000 gross ton-miles ... Rs.	1.95	2.27	1.68	1.72	1.60	1.81	2.02	1.82
123	Per cent. on gross earnings ... Per cent.	15.47	15.98	11.65	11.46	10.62	12.14	16.77	16.53
<i>LOCOMOTIVE EXPENSES.</i>									
<i>Fuel, average price.</i>									
	Per ton ... Rs.	13.35	12.39	13.37	14.78	14.67	14.79	12.27	9.85
<i>Fuel, average quantity consumed (in terms of coal).</i>									
	Per train-mile ... lbs.	47.69	47.97	47.82	45.77	48.97	52.35	43.75	39.85
	Per 1,000 gross ton-miles ... lbs.	166.70	178.08	174.97	165.16	171.53	179.93	159.74	135.34
145-a	Total locomotive expenses. Per train-mile ... Annas	11.75	11.61	11.90	12.54	12.93	13.50	13.41	7.10
145-b	Per 1,000 gross ton-miles ... Rs.	2.57	2.69	2.72	2.83	2.83	2.90	3.06	1.51
124	Per cent. on gross earnings ... Per cent.	20.34	18.96	19.13	18.55	18.73	19.44	25.40	13.71
<i>Total locomotive expenses, excluding cost of fuel.</i>									
	Per 1,000 gross ton-miles ... Rs.	1.58	1.71	1.68	1.74	1.71	1.71	2.19	0.91
<i>Average miles run per locomotive per diem.</i>									
	... Miles	54.94	53.36	52.04	49.22	50.01	49.76	41.65	46.59
<i>Percentage of locomotives constantly under repairs on the total stock on the list.</i>									
	... Per cent.	22.52	26.40	25.00	24.55	22.29	21.08	25.79	14.61
<i>CARRIAGE AND WAGON EXPENSES.</i>									
	Total vehicle-miles run by home vehicles ... Vehicle-miles	25,625,680	24,475,693	26,856,469	24,276,410	26,595,377	27,888,666	74,334,503	25,891,351
151-a	Total carriage and wagon expenses. Per 1,000 vehicle-miles run by home vehicles ... Rs.	9.46	8.70	9.62	14.23	11.13	11.21	10.49	16.39
125	Per cent. on gross earnings ... Per cent.	5.21	4.36	4.95	6.64	5.30	5.65	5.79	11.25
<i>Percentage of 3rd or lowest class coaching vehicles constantly under repairs on the total stock on the list.</i>									
	... Per cent.	7.45	6.37	6.91	6.19	7.98†	6.23†	11.71†	16.38†
<i>Percentage of goods stock constantly under repairs on the total stock on the list.</i>									
	... Per cent.	8.07	2.47	3.30	4.76	6.62	6.45	6.59	5.31
<i>TRAFFIC EXPENSES.</i>									
<i>Station and train staff.</i>									
153-a	Cost of station staff per total train-mile ... Annas	2.52	2.37	2.24	2.43	2.36	2.41	2.38	2.51
154-a	Cost of train staff per total train-mile ... Annas	0.60	0.58	0.59	0.64	0.62	0.66	1.35	0.79
162-a	Total traffic expenses. Per total train-mile ... Annas	5.41	5.21	5.46	5.48	5.15	5.34	5.55	5.03
126	Per 1,000 gross ton-miles ... Rs.	1.18	1.21	1.25	1.24	1.13	1.15	1.27	1.07
<i>Percentage of traffic expenses on gross earnings (excluding steam-boat).</i>									
	... Per cent.	9.36	8.51	8.77	8.24	7.46	7.70	10.50	9.73
<i>GENERAL CHARGES.</i>									
173-a	Per total train-mile ... Annas	3.45	3.38	3.28	3.62	3.58	3.68	2.51	2.77
127	Percentage of general charges on gross earnings (excluding steam-boat) ... Per cent.	5.97	5.52	5.28	5.44	5.19	5.31	4.76	5.35
<i>APPENDIX II OF ANALYSIS.</i>									
	Percentage of empty home vehicle-mileage on total home vehicle-mileage on home line ... Per cent.	24.68	23.21	23.59	21.08	23.92	23.74	17.61	21.07

* Including the Kolar Gold-fields railway.

† Including the Kolar Gold-fields railway and the Madras-Ennūr section of the Bezwada-Madras railway.

‡ Excluding composites.

SERIAL
No. 8

No. 318 R.Stat.
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY STATISTICS.

All communications
should be addressed
to the Secretary.

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

Simla, the 19th July 1897.

Sir,

With reference to the correspondence ending with
your endorsement No. 180 R., dated the 19th March 1897, I am
directed to forward herewith twelve copies of a review
on the Capital and Revenue Accounts of the Madras railway
for the half-year ending with the 31st December 1896, and
to invite attention to paragraphs 9 and 10 thereof.

I have the honour to be,

Sir,

Your most obedient servant,

G. A. Munn
Under Secretary.

Documents accompanying:-

12 Copies of review
referred to.

S.A. *d

Pass
7372/27