

Public Works (¹⁸⁹⁴~~190~~) Department.

RAILWAYS.

G.O., No. 457 R.

DATED 24-8 ¹⁸⁹⁴~~190~~.

[Despatch Abstract.]

Capital and Revenue Accounts of the
S. I. Ry for the 2nd half 1893:—

Coming to the agent S. I. Ry forwarded
a letter from the Govt. of India enclosing
review of the —

Indexed

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

No. 316 R. Stat.
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
Railway Statistics.

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

M.L.M.

No. 6199

Encl 1.
Recd: 20.8.94

B. No 457 R of 24th Aug: 94

Communicated to
the Agent South Indian
Railway for report.

JMU
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DESPATCHED
29 AUG. 94

To Mr. Agent S. I. Ry ✓
- Mr. G. P. Ry: Accs. ✓
Remitted
No. 457 R. 2. C. C. 31/8
Sum 25/9
CMM 27/9

REVIEW OF THE CAPITAL AND REVENUE ACCOUNTS OF THE SOUTH INDIAN RAILWAY for the half-year ended the 31st December 1893.

The mean length of railway worked was 1,049.31* miles as compared with 1,113.04 miles worked during the previous corresponding half-year. The decrease is due to the transfer of the Dharmavaram-Guntakal section to the Southern Mahratta railway.

The total capital outlay, including suspense, on the mileage open to 31st December 1893, was Rs. 7,63,31,043 against Rs. 7,82,83,761 on the 31st December 1892.

2. The gross earnings from all sources showed a decrease of 1.52 per cent., the earnings under coaching having fallen from Rs. 20,72,253 to Rs. 19,64,628, while under goods they rose from Rs. 17,33,488 to Rs. 17,71,045, and under miscellaneous from Rs. 98,042 to Rs. 1,08,858.

The gross earnings per mean mile worked were Rs. 3,664 against Rs. 3,507, in the second-half of 1892.

3. The total number of passengers booked fell from 5,329,100 to 5,102,864, showing a decrease of 4.24 per cent. The passenger unit-mileage* decreased by 5.49 per cent. and the earnings from coaching traffic by 5.19 per cent. The number of passengers carried one mile* per mean mile worked was 165,561 as compared with 165,148 in the second-half of 1892.

The decrease in the earnings from coaching traffic was due, it is explained, to traffic having been interrupted during the time the breaches caused by floods in November were under repair, and also to the prevalence of cholera.

The average distance travelled by a passenger was 34.01* miles against 34.49* miles in the corresponding half of 1892. The earnings from passenger traffic were 5.59 per cent. lower than in the corresponding period of 1892.

4. The total tonnage of goods lifted showed a decrease of 20.46 per cent. as compared with the second-half of 1892, the figures being 757,503 tons against 952,292 tons. The total ton-mileage decreased by 2.07 per cent., but the total earnings increased by 2.17 per cent. The number of tons of goods carried one mile per mean mile worked was 41,910 tons as compared with 40,344 tons in the previous corresponding half-year.

The increase in the earnings from goods traffic was mainly due to the increase under "Merchandise, general," owing principally, it is stated, to an increase of Rs. 49,001 under "Grain and pulse," due to increased traffic from northern stations and foreign railways to the Madura and Tinnevely districts.

The average distance over which a ton of goods was hauled was 58.06 miles as compared with 47.15 miles in the second-half of 1892.

5. The total working expenses amounted to Rs. 24,41,161 against Rs. 24,44,105 in the previous corresponding period.

* Including the Pondicherry Railway.

The main fluctuations were increases of Rs. 70,338 and of Rs. 41,649 under "Maintenance" and "Carriage and wagon" respectively, and a decrease of Rs. 98,797 under "Locomotive." The increases under the first and second heads were, it is said, due to heavy repairs and renewals. The decrease under the third head was chiefly under "Maintenance and renewals of locomotive engines." The corresponding period of 1892 included the cost of 3 new locomotives.

6. The net earnings amounted to Rs. 14,03,370 against Rs. 11,59,678, giving a percentage for the half-year on the total capital outlay on open line of 1.84 as compared with 1.86 in the previous corresponding half-year.

7. The statements which will be found appended to this review show:—

(i) The results of working the South Indian, including the Pondicherry railway, during the second-half of each of the years 1888 to 1893, as compared with the results of working the Bengal and North-Western railway (including the Tirhoot section) during the second-half of 1893, and the Eastern Bengal (state) railway (metre gauge section) during the first-half* of 1883.

(ii) The cost of the several departments on the South Indian, including the Pondicherry railway, during the second-half of 1893, as compared with the Bengal and North-Western railway (including the Tirhoot section) during the same half-year, and the Eastern Bengal (state) railway (metre gauge section) during the first-half* of 1893.

8. From the first statement it will be observed that the percentage, of working expenses on gross earnings was lower during the half-year under review than in any of the five previous corresponding half-years, except the second-halves of 1890 and 1892. The percentage for the second-half of 1893 was 63.50 against 50.57 on the Bengal and North-Western railway (including the Tirhoot section) during the same half-year, and 52.77 on the Eastern Bengal (state) railway (metre-gauge section) during the first-half* of 1893. The ratio of working expenses to earnings on the South Indian railway seems unduly high for a line earning Rs. 141 per mile per week. This point was noticed in the review for the second-half of 1892.

The percentage of net earnings on capital outlay was lower than in the second-halves of 1889, 1890 and 1892. It was 1.84 against 1.93 on the Bengal and North-Western railway (including the Tirhoot section) during the same half-year, and 2.53 on the Eastern Bengal (state) railway (metre gauge section) during the first-half* of 1893.

The average cost of hauling a coaching unit one mile per passenger unit was higher than in any previous corresponding half-year, the results for which are shown in the statement, except the second-half of 1891. It was 1.03 pies against 0.97 pies on the Bengal and North-Western railway.

The coaching earnings per train-mile were lower than in any previous corresponding half-year, except the second-half of 1891.

The percentage of freight upon capacity hauled, lowest class, was lower than in any previous corresponding half-year, except the second-half of 1891.

The average cost of hauling a goods unit (one ton) one mile was lower than in any previous corresponding half-year, except the second-half of 1890. It was pies 5.67 against pies 3.31 on the Bengal and North-Western railway during the same half-year, and pies 5.14 on the Eastern Bengal (state) railway (metre gauge section) during the first-half* 1893.

* The results of working for the first-half of 1893 of this railway have been taken for comparison as that is the slack season on this line as is the second-half of a year on other lines.
† South Indian only.

The percentage of freight upon capacity hauled for goods traffic was higher than in any previous corresponding half-year, except the second-half of 1888.

The percentage of traffic expenses on gross earnings is the highest recorded in the statement for this line, as are also the total general charges per train-mile, while the percentage of general charges on gross earnings was higher than in any previous half-year, except the second-half of 1892.

The average number of miles run per locomotive per diem was lower during the half-year under review than during any of the five previous half-years.

9. From the second statement it appears that the cost of maintenance and renewal of permanent-way per mile of track including sidings is comparatively high, even when allowance is made for the increased expenditure referred to in paragraph 5, *ante*. The consumption of fuel seems also comparatively high, as well as the locomotive expenses. The expenditure in the carriage and wagon department also compares unfavourably with the railways with which comparison is made, and this is only to a small extent accounted for by the explanation in paragraph 5, *ante*.

10. The following errors and omissions are noticed in the Chief Auditor's note.

Errors and Omissions. *Table of general results.*—In the column "Percentage of increase or decrease" no entry is required against "Average number of trains over the whole line daily in both directions."

A paragraph should have been inserted after paragraph 4 showing the percentage of working expenses on gross earnings for the year 1893 as compared with the figure for 1892, as well as the percentages of net earnings on total capital outlay for the same periods.

Paragraph 28.—The percentage of increase or decrease in the total working expenses for the two half-years under comparison should have been shown with a *minus* instead of a *plus* sign.

Statement No. I.
Statement comparing the results of working the South Indian, including the Pondicherry railway, during the second-half of each of the years 1888 to 1893, also comparing the results with the Bengal and North-Western railway (including the Tirhoot section) during the second-half of 1893 and the Eastern Bengal (state) railway (metre-gauge section) during the first-half* of 1893.

Item numbers of analysis.	Particulars.	SOUTH INDIAN, INCLUDING THE PONDICHERRY RAILWAY.						BENGAL AND NORTH-WESTERN RAILWAY (including the Tirhoot section).	EASTERN BENGAL (STATE) RAILWAY (METRE-GAUGE SECTION), INCLUDING THE KAUNIA-DHARILA (2' 6" GAUGE) BRANCH.
		2nd-half, 1888.	2nd-half, 1889.	2nd-half, 1890.	2nd-half, 1891.	2nd-half, 1892.	2nd-half, 1893.	2nd-half, 1893.	1st-half, 1893.
2	Mean mileage worked ... Miles	662.44	662.44	662.46	908.61	1,113.04	1,049.31	756.30	412.42
...	Capital outlay ... Rs.	4,90,00,032	4,93,84,859	4,96,27,115	7,72,11,896	7,82,83,761	7,83,31,043	5,32,63,913	3,79,30,088
...	Results.	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
...	Gross earnings ... Rs.	27,51,197	28,37,527	31,59,778	34,77,116	39,03,783	38,44,531	21,15,168	20,35,263
...	Working expenses ... Rs.	18,44,733	18,84,234	18,04,011	23,53,259	24,44,105	24,41,161	10,69,748	10,74,052
...	Net earnings ... Rs.	9,06,464	9,53,293	13,55,767	11,23,877	14,59,678	14,03,370	10,45,420	9,61,216
6	Percentage of net earnings (including steam-boat traffic) on capital outlay ... Per cent.	(a) 1.84	(a) 1.93	(a) 2.73	(a) 1.69	(a) 1.86	(a) 1.84	21.15,168	20.35,263
...	Percentage of working expenses on gross earnings ... Per cent.	(a) 67.05	(a) 66.40	(a) 57.09	(a) 67.08	(a) 62.61	(a) 63.50	10.69,748	10.74,052
9	Gross earnings per mile open per week ... Rs.	160	165	184	147	135	141	1.96	2.53
...	Total train-mileage per mean mile worked ... Coaching	665	682	733	770	855	811	50.57	52.77
...	Goods	887	890	1,069	889	669	678	533	602
33	Average sum received for carrying a unit one mile—lowest class ... Pies	2.00	2.00	2.00	2.00	2.00	2.00	466	732
79	Average cost of hauling a coaching unit one mile, per passenger unit ... Pies	0.99	0.99	0.82	1.13	0.96	1.03	2.00	2.51
23	Coaching earnings per train-mile ... Rs.	3.20	3.25	3.22	2.58	2.80	2.78	0.97	1.13
77	Average cost of hauling a coaching train one mile ... Rs.	1.73	1.75	1.40	1.49	1.40	1.49	2.40	2.96
69	Percentage of freight upon capacity hauled—lowest class Per cent.	63.90	60.23	58.25	48.93	54.47	51.63	1.06	1.21
93	Average sum received for carrying a ton one mile ... Pies	7.32	7.59	7.11	7.57	7.41	7.73	38.28	46.63
115	Average cost of hauling a goods unit (viz., one ton) one mile ... Pies	6.01	6.21	4.94	5.91	5.70	5.67	6.18	8.63
91	Goods earnings per train-mile ... Rs.	2.17	2.20	2.16	2.01	1.83	2.09	3.31	5.14
113	Average cost of hauling a goods train one mile ... Rs.	1.73	1.80	1.50	1.57	1.40	1.53	2.53	2.85
104	Percentage of freight upon capacity hauled ... Per cent.	50.27	47.76	48.95	46.00	44.89	49.39	40.65	43.63
110	Percentage of coaching traffic on gross earnings ... Per cent.	52.50	53.29	49.39	52.41	53.29	51.30	46.19	42.48
126	Percentage of traffic expenses on gross earnings ... Per cent.	7.83	8.64	7.71	7.88	8.53	8.71	9.52	9.54
127	Percentage of general charges on gross earnings ... Per cent.	6.40	6.53	5.85	7.40	8.07	7.65	8.66	1.69
153-a	Cost of station staff per total train-mile ... Annas	1.72	1.81	1.60	1.44	1.44	1.59	1.69	2.38
154-a	Cost of train staff per total train-mile ... Annas	0.34	0.36	0.33	0.31	0.29	0.32	0.60	0.57
173-a	Total general charges per total train-mile ... Annas	2.74	2.85	2.48	2.72	2.98	3.02	3.95	2.85
181	Average miles run per locomotive per diem ... Miles	52.74	54.22	61.76	52.08	58.80	49.44	48.02	53.16
...	Percentage of locomotives constantly under repairs on total stock on list ... Per cent.	10.68	25.83	13.98	19.76	24.18	15.30	17.84	18.45
...	Percentage of 3rd or lowest class coaching stock constantly under repairs on total stock on list ... Per cent.	13.84	13.39	5.58	3.28	6.73	12.13	8.40	12.37
...	Percentage of goods stock constantly under repairs on total stock on list ... Per cent.	11.10	4.34	2.93	2.05	6.97	11.28	3.20	7.81

* The results of working for the first-half of 1893 of this railway have been taken for comparison as that is the slack season on this line as is the second-half of a year on other lines.
(a) South Indian Railway only.
(b) Includes amount received for working the Pondicherry railway.

Statement No. II.

Statement showing the cost of the several departments on the South Indian, including the Pondicherry railway for the half-year ended the 31st December 1893 in comparison with the cost on the Bengal and North-Western railway (including the Tirhoot section) for the second-half of 1893 and the Eastern Bengal (state) railway (metre-gauge section) for the first-half* of 1893.

Principal headings.		South Indian, including the Pondicherry railway.	Bengal and North-Western railway (including the Tirhoot section).	Eastern Bengal (state) railway (metre-gauge section), including the Kaunia-Dharila (2' 6" gauge) branch.
MAINTENANCE OF WAY, WORKS AND STATIONS.				
Maintenance and renewal of permanent-way.				
Per mile of track, including sidings ...	Rs.	554.35	146.62	277.52
Total maintenance expenses.				
Per mean mile of line maintained ...	Rs.	589.99	354.05	711.92
Per mile of track, including sidings ...	Rs.	537.54	314.26	614.46
Per 1,000 gross ton-miles ...	Per cent.	2.60	1.93	3.25
Per cent. on gross earnings ...	Miles	16.32	12.66	16.97
Mean mileage maintained ...	Miles	1,049.31	756.30	523.42
Total miles of track, including sidings ...	Miles	1,169.27	852.05	612.23
Total gross ton-mileage ...	Ton-miles	241,656,463	134,887,053	115,841,448
LOCOMOTIVE EXPENSES.				
Fuel, average cost.				
Per ton ...	Rs.	14.38	6.07	7.07
Fuel, average quantity consumed (in terms of coal).				
Per train-mile ...	lbs.	36.30	27.20	35.25
Per 1,000 gross ton-miles ...	lbs.	234.69	153.13	214.42
Total locomotive expenses.				
Per train-mile ...	Annas	8.70	4.48	5.82
Per 1,000 gross ton-miles ...	Rs.	3.51	1.53	2.21
Per cent. on gross earnings ...	Per cent.	22.05	10.06	11.56
Total locomotive expenses, excluding cost of fuel.				
Per 1,000 gross ton-miles ...	Rs.	2.01	1.16	1.53
CARRIAGE AND WAGON EXPENSES.				
Total carriage and wagon expenses.				
Per 1,000 vehicle-miles run by home vehicles ...	Rs.	10.29	3.60	4.17
Per cent. on gross earnings ...	Per cent.	7.75	3.07	3.15
Total vehicle-miles run by home vehicles ...	Vehicle-Miles	29,081,621	18,033,549	16,747,933
TRAFFIC EXPENSES.				
Per total train-mile ...	Annas	3.43	4.24	4.80
Per 1,000 gross ton-miles ...	Rs.	1.39	1.40	1.83
GROSS EARNINGS.				
Gross earnings, excluding steam-boat ...	Rs.	33,51,266	19,40,051	19,02,354
APPENDIX II OF ANALYSIS.				
Percentage of empty home vehicle-mileage on total home vehicle-mileage on home line ...	Per cent.	14.52	16.58	16.46

* The results of working for the first-half of 1893 of this railway have been taken for comparison as that is the slack season on this line as is the second-half of a year on other lines.

1072/95

Papers

No. 222

South Indian Railway Co., Ltd.,

AGENT'S OFFICE,

TRICHINOPOLY, 9th March 1895.

From

The AGENT,
SOUTH INDIAN RAILWAY,

To

The CONSULTING ENGINEER FOR RAILWAYS,
MADRAS.

Sir,

With reference to the proceedings
of Government in the Public Works Department
No 457 R of 24th August last, I forward
herewith a copy of the explanations furnished
by the Chief Engineer, the Locomotive Superinten-
- dent, and the Traffic Manager, on the cost
of working the South Indian Railway during
the half year ended 31st December, 1893.

Enclosed by
By Parach 6 }

I have the honor to be,
Sir,
Your most obedient servant.

J. H. de Meunier
for Agent.

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South Indian Railway

Note by the Chief Engineer on the expenditure for the half year ended 31st December 1893.

In the Review on the accounts, comparison is made between the working of 1st the South Indian Railway, including the Pondicherry Railway, 2nd the Bengal and North Western Railway, including the Jirkoot section, and 3rd the Eastern Bengal (State) Railway (Mehe Gange section) including the Raunia - Dharla (2nd Gange) Branch on the following.

1. Percentage of working expenses on Gross Earnings.
2. Average cost of hauling a coaching unit one mile per passenger unit.
3. Average cost of hauling a goods unit (one ton) one mile.
4. Percentage of freight upon capacity hauled.
5. Percentage of Traffic expenses on gross earnings.
6. Percentage of general charges on gross earnings.
7. Cost of maintenance and renewals of permanent way per mile of track including sidings.
8. Total maintenance expenses.

Items 1, 7 and 8 appertain to the Engineer Department and will now be dealt with.

Item 1. Percentage of working expenses on gross earnings.

The following is the comparison between the three Railways:—

Engineering

Letter to Adv 959
19.3.95

Engineering	South Indian	Bengal and North Western	Eastern Bengal
Mean mileage worked m.	1049.31	756.30	442.42
Gross Earnings Rs.	3844,531	2115,168	2035,268
Working Expenses "	2441,161	1069,748	1074,052
Per centage	63.50	50.57	52.77

These figures refer to all departments on each Railway's expenditure.

The working expenses and per centages of each department are shown below:-

	South Indian 1049.31 miles		Bengal and North Western 756.30 miles		Eastern Bengal 442.42 miles	
	Working Expenses	Per centage	Working Expenses	Per centage	Working Expenses	Per centage
Maintenance Way and Works	6,28,526	16.35	2,67,769	12.66	3,37,460	16.58
Locomotive Expenses	8,49,385	22.09	2,12,710	10.06	2,21,870	10.90
Carriage & Wagon Expenses	2,98,474	7.77	64,960	3.07	58,245	2.86
Traffic Expenses	3,35,284	8.72	2,01,416	9.52	1,85,687	9.12
General Charges	2,94,510	7.66	1,57,457	8.86	1,14,425	5.62
Steam Boat Service	-	-	86,995	4.11	1,36,812	6.72
Special and Miscellaneous	34,982	.91	48,441	2.29	19,753	.97
Total	24,41,161	63.50	10,69,748	50.57	10,74,232	52.77

The per centage under Maintenance of Way and Works of the Bengal and North Western Railway 756.30 miles in length is 3.69 per cent less than that of the South

- South Indian Railway of 1049.31 miles, while the Eastern Bengal Railway of 442.42 miles is .23 per cent more than the South Indian Railway of more than double the mileage. The details of the Eastern Bengal Railway are not available so that no comparison can be made. The comparison between the Bengal and North Western Railway and the South Indian Railway is given below:-

Engineering	South Indian		Bengal and North-Western		46
	Amount	Per centage	Amount	Per centage	
I General Superintendence	123,209	3.20	53,960	2.55	2
II Maintenance & Permanent Way	4,14,331	10.78	124,930	6.14	
III Repairs, Bridges etc	48,244	1.25	32,876	1.62	
III A. Conservancy of rivers	-	-	5,294	.26	
IV Repairs, Stations & Buildings	32,466	.84	22,134	1.05	
V New Minor Works	4,345	.11	6,756	.32	
VI Unclassified expenditure	46,687	1.21	21,779	1.03	
Total	6,69,282	17.39	2,67,769	12.97	
Less Stores returned to stock	40,756	1.06	"	"	
Total	6,28,526	16.33	2,67,769	12.97	

Note 1. The total amount shown against the Bengal and North Western Railway, includes a credit of Rs 25,374 on account of stores returned to stock.

Note 2. The special and extraordinary expenditure incurred on the two Railways are:-

South

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South Indian Railway — Bengal & North Western Ry.
Rs. 2,72,635 Rs. 356

It will be seen from this statement that with the exception of General Superintendence, Maintenance Permanent Way, and unclassified expenditure, the percentages on the other heads on the South Indian Railway are below those of the Bengal and North Western Railway. These heads of accounts include extraordinary and special expenditure, and if such expenditure be eliminated the comparison will be more favorable. A comparative statement on these lines will appear later on. The cause of excess on General Superintendence, Maintenance Permanent Way, and the Unclassified expenditure will now be explained.

General Superintendence. — The excess is .65 per cent. On the Bengal and North Western Railway, the office of Chief Engineer and Agent is combined and probably only a proportion of the pay of the office is debited to the Engineer Department.

Maintenance Permanent Way. — The excess here is 4.64 per cent. The expenditure on this head on the South Indian Railway includes the renewals of 15.16 miles of 50 lb rails. If the cost of such renewals viz. Rs. 2,37,970 equal to 6.19 per cent is eliminated, the percentage will be 4.57 on the South Indian against 6.48 on the Bengal and North Western.

Unclassified expenditure. — The excess under this head is .18 per cent and calls for no remark.

The

The comparison between the two Railways with the special and extraordinary expenditure eliminated will now be dealt with.

Engineering	South Indian		Bengal and North Western	
	Amount	Per centage	Amount	Per centage
I General Superintendence	1,23,209	3.20	53,960	2.55
II Maintenance Permanent Way	1,75,620	4.57	137,065	6.48
III Repairs bridge	26,491	.70	19,725	.93
III A. Conservancy of Rivers	-	-	5,294	.25
IV Repairs Stations & Buildings	23,803	.62	22,134	1.05
V New Minor Works	4,345	.11	6,756	.32
VI Unclassified expenditure	42,679	1.11	16,479	.78
Total	396,647	10.31	2,61,413	12.36
Less Stores returned to Stock	40,757	1.06	-	-
Total	355,890	9.25	2,61,413	12.36

Note. The percentage on Maintenance Permanent Way on the Bengal and North Western is increased from 6.14 to 6.48 on account of a large credit brought to account.

From this it will be seen that so far as the Engineering Department is concerned, the percentage of working expenses against gross earnings is more favourable on the South Indian Railway.

Item 8- Cost of maintenance and renewals of Permanent Way per mile of track including sidings. The

The following is a comparison of the three Railways:-

S. I. Ry.	B. & N. W. Ry.	E. B. Ry.
354.35	146.62	277.52

In the Review the following remarks appear:-
 "The cost of maintenance and renewals of Permanent Way, per mile of track including sidings is comparatively high even when allowance is made for the increased expenditure referred to in para 5. ante."

The increase referred to results from a comparison of the expenditure in the two half years ended December 1892 and 1893. The expenditure in the latter half year on the renewals of 50th Permanent Way amounted to Rs 2,37,970 and if this sum is eliminated, the rate per mile falls considerably, the comparison between the three Railways being:-

Railways	Per mean mile maintained Rs	Per mile of track Rs	Per 100 Gross Tons Miles
South Indian	598.99	537.54	2.60
Bengal & North Western	354.05	314.26	1.98
Eastern Bengal	711.92	614.46	3.25

No details of the E. B. Railway are available, the comparison must therefore be made with the Bengal and North Western Railway. To arrive at a useful one the special and extraordinary expenditure on both Railways should be taken off. The comparison will then be:-

Railways	Per mean mile Rs	Per mile of track Rs	Per 1000 Gross Tons Miles
South Indian	339.17	304.37	1.47
Bengal & North Western	345.64	306.80	1.94

I take it that the comparisons drawn in the Review on the accounts are intended chiefly to direct attention to items of expenditure which in the absence of explanation seem anomalous. I have endeavoured to explain some of the apparent anomalies, but in order to be certain of one's ground and to make any further useful comparisons between the expenditure of different railways it would be necessary to know something of the nature of the Traffic, number and habits of the population of the country traversed and the gradients worked over.

It is obvious that all these and other influences must be taken into account in equating and comparing the working expenses of one railway system with another. I am not possessed of data sufficient to make a complete comparison of the kind indicated, but so far as corrective data are available, it is, I think, evident that the Engineer Department of the South Indian Railway is worked at a lower rate than that of the Railways with which it is compared in the Review under notice.

Agents Office
Trichinopoly }
9th March 1895 }

J. H. de Measurier
for Agent

la

South Indian Railway

State by the Loco and Carr Superintendent.
on the expenditure for the half year ended
31st December 1893.

The cause of the increase in the Carriage and Waggon Department is due to some of the single unit Third Class Carriages and Brake Vans having been rebuilt and to the renewals of wheels and Axles &c during the period under notice and also replacing old type of Couplings by Jones flexible buffers.

Fuel average cost per ton. The excess is due to the enhanced rate at which Coal has been brought viz Rs 16 per ton against Rs 3.2.0 and 5.11.0 on the Bengal & North Western and Eastern Bengal (State) Railways respectively.

Fuel Average quantity Consumed per train mile. With reference to our line I would point out that the Coal in use during the half year was so say the least far from good as will be seen from the several endorsements on my tabular statements

* Bonora

Nos

Nos 433 and 601 dated 11th August
and 30th September 1893 respectively,
thus accounting for the high average
of fuel consumed on this line.

Locomotive Expenses per train mile - The
increase is due chiefly to the train
mileage run having been consi-
derably more than the Railway
referred to.

Agents Office }
9th March 1895 }

J. H. Le Meunier
for Agent

G. D.

South Indian Railway

Note by the Traffic Manager on
the Expenditure for the half year
ended 31st December 1893.

It must be borne in mind
that the traffic on the Villupuram -
Vellore - Dharmavaram Sections, a length
of 388 miles, is very light and compares
most unfavorably with other parts of
the System, although similar supervi-
sion and working staff is needed.

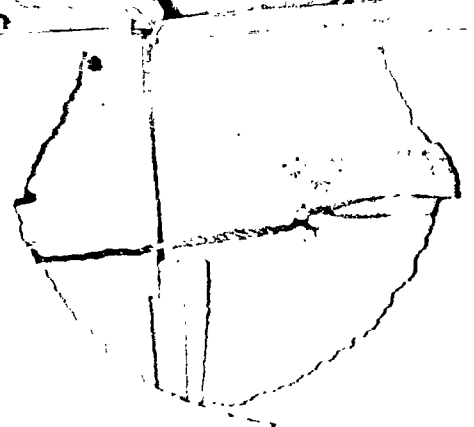
Take for instance the earnings
of the Main - line from Madras to
Tuticorin over the four Sections, a
distance of 443 miles, as compared
with the Villupuram - Vellore -
Dharmavaram Sections for the past
two half years:-

Section	1893			
	Half year Ending 30th June		Half year Ending 31st December	
	Gross Earnings	Total per mile per week	Gross Earnings	Total per mile per week
Main Line	Madras to Buddalore	7,47,341 221.15.5	6,73,858	200.2.2
	Buddalore to Trichinopoly	8,55,024 271.3.6	7,53,355	238.15.6
	Trichinopoly to Madurai	6,17,163 247.4.2	5,12,259	205.3.9
	Madurai to Tuticorin	4,87,357 189.6.0	4,45,904	173.4.4
Villupuram Stellore Sharmavaram Sections	Pakala to Villupuram	2,72,518 75.12.2	2,85,473	79.5.9
	Stellore to Pakala	1,82,904 65.5.3	1,70,415	60.13.11
	Pakala to Sharmavaram	1,09,221 29.11.4	1,20,691	32.13.3

These figures speak for themselves, and whilst regretting the increase referred to, I think further comment from me unnecessary.

I would however point out that this line has difficulties to contend with, which I presume do not exist on the Northern lines with which comparison is made.

- (1) The main line throughout Madras to Tuticorin (443 miles) runs



nearly parallel with the Sea Coast, thus Causing Sharp Competition with the Steamers between the important Coast towns, and the necessity for very low rates.

- (2) The flow of goods traffic on the South Indian Railway (Main line) is principally from North to South which necessitate a large portion of the Stock having to be hauled empty on the return journey.

I would also point out the Villupuram - Mellore - Dharmavaram Sections are considerably handicapped by the Katpadi and Renigunta Junctions with the Madras Railway which practically prevent a long lead over this line.

Taking these points into consideration I think the working expenses so far as the Traffic Department is concerned compared most favorably with the Northern lines quoted.

Agents Office
9th March 1895

J. H. L. Mesurier
for Agent

La

PAPERS.

ENG. No. 1 TO E. R. S. M. 1097 295
LETTER No 222 of 9. 3. 95
FROM A

Letter from
No.
Dated

To E. R.

The notes by the
Head of Department S.I.R.
need not go on to India -
I think the Engineer
& Traffic explanation is enough
& no doubt the Loco is correct
but I do not follow the
last remark of the Loco Sub.
It appears to me that
opposite result should be
arrived at.

Chitt. 13/3

No more to I. Engr. & road

9/3/95
10/2

A

With ref to your letter no 222 of
9/3/95. I L.T.L. to enquire
request that the cause of
excess expenditure under
"Loco Expenses per train mile"
may be more fully explained.
The explanation given in the
enclosure to your letter under
ref. appears to me to be
(?) valuable.

Chitt. 18/3

D.C.

MADRAS, 19th March 1895.

To

Agent, S. I. R.

No. 959 Reply No. 378, dated 24/4/95

SIR,

In reply to your
letter No 222 dt 9/3/95
I h.t.h. to observe that
the cause of the excess
~~cost of~~ under the head
"Loco Expenses per train mile"
is not sufficiently explained
as an excess of trains
should in any opinion ~~must~~ result in a lighter
rate per train mile

Reminders.

I request I may be
favoured by a more detailed
explanation showing the
Loco expenses of fuel, lubricants
etc per train mile ~~separately~~
I should also request a
statement may be furnished
showing the running expenses
in detail per engine
and compared with the
2 Railways selected by the
Govt of India for comparison

Subject

V.M. 18
3

No. 378

South Indian Railway Co., Ltd.,
AGENT'S OFFICE,

TRICHINOPOLY, 24th April 1895.

From

Ag
The AGENT,

SOUTH INDIAN RAILWAY,

To

The CONSULTING ENGINEER FOR RAILWAYS,
MADRAS.

Sir,

In reply to your letter N^o 957 of the 19th ultimo, regarding the working expenses of this Railway for the second half year of 1893, I have the honor to forward herewith copies of two statements furnished by the Locomotive Superintendent, showing the cost of Fuel, Superintendence, &c., per train mile, with detailed explanations and the Running Expenses in detail, per Engine.

I have the honor to be
Sir.

Yours most obedient Servant

David Logan

Ag Agent

2. Enclosures herewith

6.9

REGISTER
No 1840
FILE
No

Copy

Statement showing the Local other Railways.

Description

Explanations

General Superintendence, &c, per train mile is less than the Eastern Bengal (State) than the Bengal and North-Western is due to the increased salaries upon sanctioned in G.O. No. 2685 R. dated 1891 and under agreement.

Cost of Fuel per train mile per train mile when compared with the Mys, there is an excess which is in a great the increased rate at which coal has been bought

Maintenance and Renewals of the average numbers of Engines per train mile Engines per train mile expenditure being high is due to many having through length of time become worn and required heavy repairs and der repair during the 2nd half of against 17.84 and 14.61 on the North-Western, and Eastern Bengal respectively.

Loco. and Carr. Supt. Office
Mysore, 8th April 1895 } signed) C.E. Brighton
Loco. and Carr. Supt.

To
THE AGENT,
South Indian Railway,
Trichinopoly,
To
THE CONSULTING ENGINEER FOR
RAILWAYS,
Madras.
Dated }
Received }
No. 189
ENCLOSURE.

1840.

South Indian Railway
Locomotive Department

Statement showing the Running Expenses in detail per Engine as compared with other Railways.

	<i>South Indian Railway</i>	<i>Bengal and North Western Railway</i>	<i>Eastern Bengal (State) Railway</i>
	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
<i>Wages of Drivers and Firemen etc per Engine</i>	<i>177</i>	<i>579</i>	<i>1,840</i>
<i>Water (including wages and stores)</i>	<i>77</i>	<i>56</i>	<i>153</i>
<i>Oil, Tallow and other stores (expended on Engines in work)</i>	<i>164</i>	<i>93</i>	<i>413</i>

Loco. and Carr. Supt's Office
Megapattin, 8th April 1895

(Signed) C. E. Brighton
Loco. and Carr. Supt.

La

Letter from

No.

Dated

To E. R.

I do not think there
is any use in continuing
this correspondence. A
Committee should be
named to enquire into
the working of the Loco
Dept.

MM. $\frac{2}{5}$.

D, on return

signed flt 17/5

File
MM $\frac{20}{5}$

ER.

MM $\frac{22}{5}$