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G.O., No. 236.37A

DATED 6 April 1887

Analysis of working of the S. I. Railway: Order
that copies of the — (including the Chayavaram
Muttupet and Pondicherry Railways) for the
half year ended the 31st December 1886 be
forwarded to the Director General of Railways
and the Secretary of State.

Analysis of working of the S. I. Railway: For.
working Pass. embodying the — (including
the Chayavaram Muttupet and Pondicherry
Railways) for the half year ended the
31st December 1886.

Do —

BACK PAPER.

Department.

Date.

RAILWAY.

Government {1897} of Madras.
PUBLIC WORKS.

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G.O., Nos. 236, 237 R., 6th April 1897.

APRIL.

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Date.

G.O.

N.

Department.

Analysis of working of the South Indian Railway

Forwarding Proceedings embodying the — (including the Mayavaram-Mutupet and Pondicherry Railways) for the half-year ended the 31st December 1896.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

Letter from the Agent, South Indian Railway, dated 2nd April 1897, No. 367.

ORDER—No. 236 R., dated 6th April 1897.

Ordered that nine copies of the analysis of working of the South Indian Railway (including the Mayavaram-Mutupet and Pondicherry Railways) for the half-year ended the 31st December 1896, be forwarded to the Director-General of Railways and to the Secretary of State for India.

[Here enter No. 237 R., dated 6th April 1897.]

(True Extract.)

(Signed) F. J. E. SPRING,
Offg. Joint Secy. to Govt.,
Railway Branch.

To the Agent, South Indian Railway.
„ Examiner of Railway Accounts, Madras.

ENDORSEMENT—No. 237 R., dated 6th April 1897.

Forwarded.

(By order.)

(Signed) F. J. E. SPRING,
Offg. Joint Secy. to Govt.,
Railway Branch.

To the Director-General of Railways, Simla.

Ed. Shaik Karim.

SOUTH INDIAN RAILWAY.

(INCLUDING MAYAVARAM-MUTUPET AND
PONDICHERRY RAILWAYS.)

ANALYSIS OF WORKING

FOR THE

Half-Year ended 31st December 1896.

TRICHINOPOLY :—BRANCH "ECLIPSE" PRESS.

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SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERRY RAILWAYS.)
ANALYSIS OF WORKING
FOR THE HALF-YEAR ENDED 31st December 1896.

Progressive Number.	HEADINGS.		REMARKS.
No. I.			
DESCRIPTION OF RAILWAY WORKED.		Ft. In.	
1	Gauge of Railway ... Miles.	3 3 $\frac{1}{8}$	
2	Mean mileage worked ... No.	1,103.38	
3	Number of stations ...	168	
4	Total length of the following gradients ... Miles.		
	(a) $\frac{1}{80}$ and less ...		
	(b) $\frac{1}{81}$ to $\frac{1}{80}$...	119.39	
	(c) $\frac{1}{81}$ to $\frac{1}{100}$...	207.91	
	(d) $\frac{1}{101}$ to $\frac{1}{200}$...	81.80	
	(e) $\frac{1}{201}$ to $\frac{1}{300}$...		
5	Steepest gradient worked—		
	(a) Length ... Miles.	3.12	
	(b) Inclination ...	1 in 100	
No. II.			
FINANCIAL RESULTS.			
6	Percentage of net earnings (including steam boat traffic) on Capital outlay ... Per cent.	2.63	S.I.Ry. M.M.Ry. P.Ry. 2.65 2.14 1.34
7	Percentage of net earnings on paid-up capital ...		
No. III.			
OUTLAY, EARNINGS AND EXPENSES.			
(Exclusive of Steam Boat Service.)			
8	Capital outlay per mile open ... Rs.	69,885.33	S.I.Ry. M.M.Ry. P.Ry. 71,133.51 45,370.99 72,890.13
9	Total earnings per mile open per week ...	156.59	
10	Total working expenses per-mile per week ...	83.57	
11	Total earnings per train-mile ...	2.55	
12	Total working expenses per train-mile ...	1.36	
13	Net earnings per train-mile ...	1.19	
14	Cost per 1,000 gross ton-miles moved (freight and dead weight) ...	8.20	
15	Percentage of total working expenses upon total earnings ... Per cent.	53.37	
16	Percentage of total working expenses upon total earnings, excluding from both sides of the account the charges for carriage of Revenue Stores ...	52.50	
(Inclusive of Steam Boat Service.)			
17	Percentage of total working expenses on total earnings (for details see table No. VII.) ...	53.37	
No. IV.			
DIVISION OF EXPENDITURE BETWEEN COACHING AND GOODS TRAFFIC.			
18	Total working expenses for both coaching and goods traffic, excluding steam boat expenses, and after deducting telegraph and sundry receipts, and leaving only the balance of payments to other lines for mileage, &c. ... Rs.	23,34,627	
Proportions, dividing expenditure in ratio of gross ton mileage (freight and dead load)...			
19	Coaching ...	11,50,912	
20	Goods ...	11,83,715	

Capital outlay of the Pondicherry Railway is Rs. 5,63,543.

SOUTH INDIAN RAILWAY:
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)
ANALYSIS OF WORKING.—(continued.)
HALF-YEAR ENDED 31st December 1896.

Progressive Number.	HEADINGS.	REMARKS.
No. V.		
COACHING TRAFFIC.		
GROSS RECEIPTS AND TRAIN-MILEAGE—		
21	Receipts from coaching Traffic ... <i>Rs.</i>	23,93,358
22	Coaching Train miles run ... <i>No.</i>	878,545
23	Average coaching receipts per train-mile... <i>Rs.</i>	2-72
UNITS AND UNIT MILEAGE—		
Number of units carried one mile.		
24	1st class ... <i>Unit Miles.</i>	564,798
25	2nd „ ... „	4,417,692
26	3rd or Intermediate class ... „	
27	4th or Lowest class ... „	206,735,606
28	Total Passenger unit mileage ... „	211,718,096
29	Other coaching traffic ... <i>Ton Miles.</i>	424,636
Average sum received for carrying a unit one mile.		
30	1st class ... <i>Pies.</i>	11-77
31	2nd „ ... „	3-83
32	3rd or Intermediate class ... „	
33	4th or lowest class ... „	2-00
34	Average for all classes ... „	2-06
35	Other coaching traffic per ton mile ... „	53-61
Average number of units in a train.		
36	1st class ... <i>No.</i>	63
37	2nd „ ... „	5-03
38	3rd or Intermediate class ... „	
39	4th or Lowest class ... „	235-32
40	Total passenger units ... „	240-98
41	Other coaching traffic ... <i>Tons.</i>	48
VEHICLES AND VEHICLE MILEAGE—		
Number of Coaching Vehicles hauled one mile		
42	1st class ... <i>Vehicle Miles.</i>	852,523
43	2nd „ ... „	1,274,069
44	3rd or Intermediate class ... „	
45	4th or Lowest class ... „	10,617,439
46	Other Vehicles ... „	1,899,703
47	Brake-vans ... „	178,425
48	Total ... „	14,822,159
Average Number of Vehicles in a coaching train.		
49	1st class ... <i>No.</i>	97
50	2nd „ ... „	1-45
51	3rd or Intermediate class ... „	
52	4th or Lowest class ... „	12-09
53	Other Vehicles ... „	2-16
54	Brake-vans ... „	20
55	Total ... „	16-87
Average earnings per coaching vehicle per mile.		
56	1st class ... <i>Pies.</i>	7-80
57	2nd „ ... „	13-27
58	3rd or Intermediate class ... „	
59	4th or Lowest class ... „	38-92
60	Other vehicles ... „	11-98
Carrying capacity hauled one mile (excluding brakes)		
61	1st class ... <i>Seats.</i>	9,788,759
62	2nd „ ... „	20,251,095
63	3rd or Intermediate class ... „	
64	4th or Lowest class ... „	416,970,359
65	Other vehicles ... <i>Tons.</i>	4,221,720
Percentage of freight upon capacity hauled.		
66	1st class ... <i>Per cent.</i>	5-77
67	2nd „ ... „	21-81
68	3rd or Intermediate class ... „	
69	4th or Lowest class ... „	49-58
70	Other vehicles ... „	10-06

SOUTH INDIAN RAILWAY:
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)
ANALYSIS OF WORKING.—(continued.)
HALF-YEAR ENDED 31st December 1896.

Progressive Number.	HEADINGS.	REMARKS.
No. V.		
COACHING TRAFFIC.—(Continued.)		
WEIGHT OF TRAIN AND TON-MILEAGE—		
Gross ton-mileage of all coaching trains.		
71	Freight ... <i>Ton Miles</i>	13,238,668
72	Dead-weight ... „	127,103,934
73	Total ... „	140,342,602
Average weight of a coaching train.		
74	Freight ... <i>Tons.</i>	15-07
75	Dead-weight ... „	144-67
76	Total ... „	159-74
COST OF WORKING AND PROFITS—		
Average cost of hauling a coaching train one mile		
77	... <i>Rs.</i>	1-31
Average cost of hauling a coaching vehicle with its load one mile		
78	... <i>Pies.</i>	15-09
Average cost of hauling a coaching unit one mile.		
79	Per passenger unit ... „	93
80	Other traffic per ton ... „	54-61
Average profit on working a coaching train one mile		
81	... <i>Rs.</i>	1-41
Average profit on working a coaching vehicle one mile.		
82	1st class ... <i>Pies.</i>	7-29
83	2nd „ ... „	1-82
84	3rd or Intermediate class ... „	
85	4th or Lowest class ... „	23-83
86	Other vehicles ... „	3-11
Average profit on working a coaching unit one mile.		
87	Per passenger unit ... <i>Pies.</i>	1-13
88	Other traffic per ton ... „	1-00

SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)
ANALYSIS OF WORKING.—(continued.)
HALF-YEAR ENDED 31st December 1896.

Progressive Number.	HEADINGS.		REMARKS.
No. VI.			
GOODS TRAFFIC.			
GROSS RECEIPTS AND TRAIN-MILEAGE—			
89	Receipts from Goods Traffic	Rs.	20,35,823
90	Goods Train-miles run	No.	882,929
91	Average goods receipts per train-mile	Rs.	2-31
UNITS AND UNIT MILEAGE—			
92	Tons of Goods carried one mile	Ton Miles.	48,418,894
93	Average sum received for carrying a ton one mile	Pies.	8-07
94	Average number of tons in a train	Tons.	54-84
VEHICLES AND VEHICLE MILEAGE—			
Number of Goods vehicles hauled one mile.			
95	Loaded	Vehicle Miles.	11,359,213
96	Empty	"	4,526,772
97	Brake-vans	"	626,013
98	Total	"	16,511,998
Average number of vehicles in a goods train			
99	Freight vehicles	No.	17-99
100	Brake-vans	"	71
101	Total	"	18-70
102	Average earnings per goods vehicle per mile (excluding brakes)	Pies.	24-61
103	Carrying capacity hauled one mile (excluding brakes)	Tons.	96,086,716
104	Percentage of freight upon capacity hauled	Per cent.	50-39
105	Average load of a goods vehicle (including both loaded and empty)	Tons.	3-05
106	Average load of a loaded goods vehicle	"	4-26
WEIGHT OF TRAIN AND TON MILEAGE—			
Gross ton mileage of all goods trains.			
107	Freight	Ton Miles	48,418,894
108	Dead-weight	"	95,923,710
109	Total	"	144,342,604
Average weight of a goods train			
110	Freight	Tons.	54-84
111	Dead-weight	"	108-64
112	Total	"	163-48
COST OF WORKING AND PROFITS—			
113	Average cost of hauling a goods train one mile	Rs.	1-34
114	Average cost of hauling a goods vehicle with its load one mile	Pies.	14-31
115	Average cost of hauling a goods unit (viz. one ton) one mile	"	4-69
115 A	Average cost of hauling a goods unit (viz. one ton) one mile including interest on Capital expended at the rate of 5 per cent per annum	"	8-70
116	Average profit on working a goods train one mile	Rs.	-97
117	Average profit on working a goods vehicle with its load one mile	Pies.	10-30
118	Average profit on working a goods unit (viz. one ton) one mile	"	3-38

SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)
(ANALYSIS OF WORKING.—(continued.)
HALF-YEAR ENDED 31st December 1896.

Progressive Number.	HEADINGS.		REMARKS.
No. VII.			
DETAILED PERCENTAGES OF EARNINGS AND EXPENDITURE.			
Percentage to Total Earnings—			
119	Coaching Traffic	Per cent.	53-28
120	Goods Traffic	"	45-32
121	Sundries, including Telegraph	"	1-40
122	Steam-boat Earnings	"	
	Total Earnings	"	100-00
Percentage of Working Expenses upon Total Earnings—			
123	Maintenance	Per cent.	10-18
124	Locomotive Expenses	"	19-62
125	Carriage and Wagon Expenses	"	5-54
126	Traffic Expenses	"	9-45
127	General Charges	"	7-27
128	Miscellaneous Charges	"	1-31
129	Steam-boat Expenses	"	
130	Total Working Expenses	"	53-37

SOUTH INDIAN RAILWAY.

(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)

ANALYSIS OF WORKING.—(contd.)—HALF-YEAR ENDED 31st December 1896.

No. VIII.—Working Expenses.

TABLE A.

Maintenance of Way, Works and Stations.

Reference to Revenue Account.		Progressive number in Analysis.	DETAILS.	a.	b.	c.	d.
Table and main-head.	Sub-head.			Per mile of line maintained. 1,103.38	Per mile of track including Sidings. 1,243.93	Per total Train-mile. 1,761,474	Per 1,000 gross ton miles. 284,685,206
IX (A)	1	1 & 2 3 to 5 6	General Superintendence—	Rs.	Rs.	As.	Rs.
			Engineers' Salaries and allowances	44.18	39.19	.44	.17
			Subordinate Superintendents' salaries and allowances, including overtime	34.91	30.96	.35	.14
			Office expenses	31.30	27.76	.31	.12
			Total...	110.39	97.91	1.10	.43
			131				
	2	1 2	Maintenance and Renewal of Permanent Way—				
			Wages	106.54	94.51	1.07	.41
			Materials	77.74	68.95	.78	.30
			Total...	184.28	163.46	1.85	.71
	3	1 2	Repairs of Bridges, &c.—				
			Wages and Materials.	45.45	40.32	.46	.17
			Bridges and tunnels	30.10	26.70	.30	.12
			Miscellaneous				
			Total...	75.55	67.02	.76	.29
	3 A	134	Conservancy of Rivers—				
			Repairs of Stations and Buildings				
			Wages and Materials—				
	4	1 2	Repairs of all, except staff quarters	31.67	28.09	.32	.12
			Repairs of staff quarters	6.63	5.88	.07	.03
			Total...	38.30	33.97	.39	.15
	5	1 2	Maintenance by Contract—				
			Amount paid to Contractors				
			Materials supplied by the Railway				
			Total...				
	6	1 2 3	New Minor Works—	5.07	4.50	.05	.02
			Unclassified Expenditure—				
			Plantations	.07	.06	.001	.0002
	7	2 3 4	Tools and Plant	2.34	2.08	.02	.01
			Loss by exchange				
			Loss on stores, &c.	2.48	2.20	.02	.01
			Freight on Stores	34.70	30.78	.35	.13
			Total...	39.59	35.12	.39	.15
	136	5, 6 and 7 Less Credits	Total Heads, 5, 6 and 7	44.66	39.62	.44	.17
			Less Credits	38.56	34.21	.39	.15
			Net Total, Other Charges	6.10	5.41	.05	.02
	137	Total Maintenance		414.62	367.77	4.15	1.60

SOUTH INDIAN RAILWAY.

(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)

ANALYSIS OF WORKING.—(contd.)—HALF-YEAR ENDED 31st December 1896.

No. VIII.—Working Expenses—(contd.)

TABLE B.

Locomotive Expenses.

Reference to Revenue Account.		Progressive number in Analysis.	DETAILS.	a.	b.	c.
Table and main-head.	Sub-head.			Per total Train-mile. 1,761,474	Per Engine mile. 2,080,578	Per 1,000 gross ton-miles. 284,685,206
IX (B)	1	1 & 2 3 to 5 6	General Superintendence—	As.	As.	Rs.
			Salaries of Superintendents and Assistants, including allowances	.17	.14	.06
			Ditto of Subordinate ditto including ditto	.27	.23	.11
			Office expenses	.17	.15	.07
			Total...	.61	.52	.24
			138			
	2	1 & 2 3 4	Running Expenses—			
			Wages of Drivers and firemen, including overtime	1.28	1.09	.50
			Fuelling, cleaning and looking after engines	.29	.17	.08
			Contingent expenses	.01	.01	.003
			Total...	1.49	1.27	.58
	3	1 to 4	Fuel.—(In terms of Khurhurbaree coal)	lbs.	lbs.	lbs.
			Average quantity consumed ...	29.96	25.37	185.39
			Average price per ton Rs.*16.71	As.	As.	Rs.
	4	140	Do. cost	3.58	3.02	1.38
			Water.—Including wages and Stores	.16	.13	.06
			Oil, tallow and other Stores	.32	.26	.12
	5	1 & 2 3	Maintenance and Renewals—			
			Wages including overtime	.80	.68	.31
			Materials	.66	.56	.26
			Total...	1.46	1.24	.57
	6 A.	...	Machinery	.02	.02	.01
			New Minor Works			
			Payments to other lines	.0002	.0001	.0001
	9	1 2 3	Unclassified Expenditure—			
			Loss by exchange	.01	.01	.005
			Loss on Stores, &c.	.38	.33	.15
			Freight on Stores			
			Total...	.39	.34	.15
	144	Total Heads 7, 8 and 9 Less Credits	Total Heads 7, 8 and 9	.39	.34	.15
			Less Credits	.03	.02	.01
			Net Total, other Charges	.36	.32	.14
	145	Total, Locomotive Expenses		8.00	6.78	3.10

* This is in terms of Khurhurbaree but the average price on actual quantity as per Revenue Account is Rs. 14.04 per ton.

SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERRY RAILWAYS.)
ANALYSIS OF WORKING.—(contd.)—HALF-YEAR ENDED 31st December 1896.
No. VIII.—Working Expenses.—(contd.)

TABLE C.
Carriage and Wagon Expenses.

Reference to Revenue Account.		Progressive number in Analysis.	DETAILS.	a.	b.
Table and main-head.	Sub-head.			Per total Train-mile.	Per 1,000 Vehicle miles run by home Vehicles.
				1,761,474	31,413,012
IX (C) 1	1 & 2	146	General Superintendence—	As.	Rs.
	3 to 5		Salaries of Superintendents, including allowances	·05	·19
	6		Ditto of Subordinate ditto, including ditto	·09	·32
			Office expenses	·06	·20
			Total...	·20	·71
2	1 to 3	147	Repairs and Renewals of Vehicles and Machinery—		
			Coaching Vehicles { Wages including overtime	·19	1·43
			Materials	·76	5·54
			Total...	·95	6·97
2A.	1 to 3	148	Goods Vehicles { Wages including overtime	·17	1·11
			Materials	·72	4·83
			Total...	·89	5·94
			Machinery		
3	1	149	Cleaning and Oiling—		
	2		Labour, including wages of Oilers, &c.	·16	·57
			Stores	·04	·13
			Total...	·20	·70
4			New Minor works—		
			Unclassified Expenditure—		
	1		Loss by exchange		
	2		Loss on Stores, &c.	·01	·05
5	3		Freight on Stores	·01	·03
			Total...	·02	·08
			Total Heads, 1 and 5	·02	·08
			Less Credits	·003	·01
	150		Net Total, Other Charges	·02	·07
	151		Total, Carriage and Wagon Expenses	2·26	7·92

SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERRY RAILWAYS.)
ANALYSIS OF WORKING.—(contd.)—HALF-YEAR ENDED 31st December 1896.
No. VIII.—Working Expenses.—(contd.)

TABLE D.
Traffic Expenses.

Reference to Revenue Account.		Progressive number in Analysis.	DETAILS.	a.	b.
Table and main head.	Sub-head.			Per total Train-Mile.	Per cent of Traffic earnings. Abstracts H. and I.
				1,761,474	44,29,181
IX (D) 1	(a) 1 & 3	152	General Superintendence—	As.	Per cent.
			Traffic Manager, Assistants, &c., including travelling allowance	·35	·88
	(a) 2 & 4		Office Establishment and contingencies	·15	·36
			Total...	·50	1·24
2	(b) 153	153	Station Staff	1·59	3·97
	(c) 154		Train Staff	·39	·97
	1 to 3		Fuel, Lighting, Water and General Stores	·58	1·44
			Clothing	·09	·22
3		156	Printing Stationery and Tickets	·59	1·47
			Charges for delivery and collection of goods, &c.	·0001	·0002
			Miscellaneous Expenses	·03	·08
			Payments to Other Lines—		
4	1	160	Expenses at Joint Stations	·08	·19
			Unclassified Expenditure—		
	1		Loss by Exchange		
	2		Loss on Stores, &c.	·0002	·0005
8	3		Freight on Stores	·003	·01
			Total Head 8	·003	·01
			Less Credits	·007	·01
			Net Total, Other Charges	·004	...
	161		Total Traffic Expenses	3·85	9·58

SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERRY RAILWAYS.)
ANALYSIS OF WORKING.—(contd.)—HALF-YEAR ENDED 31st December 1896.
No. VIII.—Working Expenses.—(contd.)

TABLE E.
General Charges.

Reference to Revenue Account.		Progressive number in Analysis.	DETAILS.	(a.)	(b.)
Table and main-head.	Sub-head.			Per total Train-Mile.	Per cent on total earnings.
				1,761,474	44,92,136
				As.	Per cent.
IX (E) 1	1 to 4	163	Home Expenditure	46	1.11
1 a			Government Supervision Audit and Control	38	.93
			Indian Management—		
	1	164	Agent's Office, including travelling allowances and contingencies	20	.50
	2		Auditor's office ditto ditto }		
	3		Accounts office ditto ditto }		
	4		Paymaster's office ditto ditto }	64	1.55
2		165	Total 2 to 4	64	1.55
	5	166	Store Department ditto ditto	13	.32
	6	167	Medical Department, ditto ditto	12	.30
	7		Rents	.0005	.001
	8 to 10		Miscellaneous expenses, including printing stationery and medicine	26	.65
		168	Total 7 to 10... ..	26	.65
3	1 to 3	169	Police	18	.45
4		170	Advertising	04	.10
			Electric Telegraph—		
	1 to 4		Salaries, &c.	21	.53
	5		Maintenance (Wages and Stores)	03	.07
	6		Government Telegraph Department, for rent, maintenance and inspection	32	.78
		171	Total... ..	56	1.38
6			Clearing Accounts, with other lines—		
			Unclassified Expenditure—		
	1		Loss by exchange		
	2		Loss on Stores, &c.	.002	.004
	3		Freight on Stores	.001	.003
			Total... ..	.003	.007
			Total Heads, 6 and 7	.003	.007
			Less Credits	.01	.02
		172	Net Total, Other Charges	.01	.02
		173	Total General Charges	2.96	7.27

Earnings of the South Indian Railway Company Rs. 43,50,195-0-9
Earnings of the Pondicherry Railway Company " 16,348-2-1
Earnings of the M. M. Railway Company " 1,25,592-7-3
Rs. 44,92,135-10-1

SOUTH INDIAN RAILWAY.
(INCLUDING MAYAVARAM-MUTUPET AND PONDICHERRY RAILWAYS.)
ANALYSIS OF WORKING.—(continued.)—HALF-YEAR ENDED 31st December 1896.
No. VIII.—Working Expenses.—(contd.)

TABLE F.
Steam Boat Service.

Reference to Revenue Account.		Progressive Number in Analysis.	DETAILS.	Per cent on Steam boat earnings.
Table and main-head.	Sub-head.			
IX (F)			Working Expenses—	Per cent.
	1		Salaries and allowances of Officers and crews... ..	
	2		Loading and unloading vessels	
	3		Pilotage fees	
	4		Contingencies	
			Repairs—	
	1		Wages	
	2		Materials	
	3	1 to 5	Fuel	
	4		Miscellaneous Stores	
	5	1 & 2	Steam Traffic Agencies	
	6		New Minor Works	
	7	1 to 6	Miscellaneous Expenditure	
			Total	
			Less Credits	
			Total Steam Boat Expenses	

TABLE G.
Special and Miscellaneous Expenditure.

Reference to Revenue Account.		Progressive Number in Analysis.	DETAILS.	Per cent on total earnings.
Table and main-head.	Sub-head.			
				44,92,136
IX (G) 1		174	Law Charges—	Per cent.
			Compensation—	
	1		For goods lost or damaged	.01
	2		" Personal injury	.005
	3		" Other claims	
			Total... ..	.01
		175	Rates and Taxes	.33
			Payments to other Lines—	
	1		Hire of Locomotives	
	2		" of vehicles	
	3		Mileage of foreign stock	
	4		Rent of stations, &c., jointly occupied	.46
			Total... ..	.46
		177	Contribution to Provident Fund	.28
			Miscellaneous	.08
			Total Heads 5 to 8	.36
			Less Credits	
		178	Net Total Other Charges	.36
		179	Total Special and Miscellaneous Expenses	1.17

A. D. C. SHELLEY,
CAPTAIN, R. E.,
Agent.

SOUTH INDIAN RAILWAY. (INCLUDING MAYAVARAM-MUTUPET AND PONDICHERY RAILWAYS.)

APPENDICES TO ANALYSIS OF WORKING.

HALF-YEAR ENDED 31st December 1896.

APPENDIX I.

Working of Locomotives.

Reference to Revenue Account.	Table & main head.	Sub-head.		Passenger.	Passenger.	Goods.	Tank.	Total.
			1—Wheels coupled ... 2—Weight on driving axle ... 3—Weight of Engine in steam ... 4—Weight of Tender Loaded ...		4 Coupled Ts. Cs. Qs. 6 15 0 8 6 2 0 0 0 6 15 0	6 Coupled Ts. Cs. Qs. 6 9 0 0 0 0 6 15 0 7 16 0	4 Coupled Ts. Cs. Qs. 7 19 0	6 Coupled Ts. Cs. Qs. 6 8 0
		LOCOMOTIVES.	S. I. R. O. class. Nellore V. G.		21 9 0 23 14 0 0 0 0 21 9 0	20 14 0 0 0 0 19 18 0 22 5 0	26 4 0	20 0 0
			S. I. R. O. class. Nellore V. G.		14 0 0 15 10 0 0 0 0 14 0 0	14 0 0 0 0 0 12 18 0 13 16 0		
XII	5	1—Number of Locomotives erected and made over to Locomotive Department	...	...	65	131	8	204
	11	2—Average number of Locomotives constantly under repairs and renewals	...	...	13.272	21.649	614	35.535
		3—Number of Locomotives laid by as spare	...	...	...	...	...	...
		4—Ditto lent or hired out to other lines	...	...	...	1	...	1
		5—Average number of Locomotives 1—(3 + 4)	...	...	65	130	8	203
		6—Total Mileage of Locomotives (5)	...	...	747,679	1,270,671	62,228	2,080,578
		7—Average miles run by a Locomotive of each class 6 ÷ 5	...	...	11,503	9,774	7,779	10,249
		Per diem.	...	...	62.52	53.12	42.28	55.70
		8—Weight of coal &c., used per engine mile	...	...	lbs.	lbs.	lbs.	lbs.
		9—Weight of wood used per engine mile	...	...	17.50	40.29	13.85	* 25.37
				Passenger Trains.	Goods Trains.	Mixed Trains.		
		10—Average gross weight of trains hauled	Tons...	86.40	111.50	162.94	...	127.75
		11—Average speed between stations	Miles per hour...	27½	13	16	...	...
		12—Average through speed	Miles per hour...	18	9½	12	...	...
		13—Average consumption of coal per engine mile,	lbs...	20.35	17.88	23.43	...	...

Description of fuel consumed.

Coefficient or multiplier for reducing to Khurhurbaree Coal.

Quantity in terms of Khurhurbaree Coal.

COAL.		Tons.	Coefficient	Tons.
	Singareni	4,788.30	.67	3,208.16
	Borra	22.75	.77	17.52
	Deshherghur	7,176.72	.78	5,597.84
	Jherria	7,151.85	.85	6,079.07
	Barmundia	1,239.80	.81	1,004.24
	Shampore	23.54	.78	18.36
	Gourangdhi	12.85	.85	10.92
	Total,	20,415.81		15,936.11

FIREWOOD { Contractors
Forest Department

	Tons.	Coefficient	Tons.
	19,415.34	.34	6,601.22
	2,179.55	.47	1,024.39
Total,	21,594.89		7,625.61

* Consumption of fuel in terms of Khurhurbaree Coal.

APPENDIX II.

SOUTH INDIAN
(INCLUDING MAYAVARAM)
APPENDICES TO ANALYSIS
APPEN
Working of

DESCRIPTION OF VEHICLES.				Total number on the list at end of the half-year.	AVERAGE WEIGHT IN TONS.	AVERAGE CARRYING CAPACITY.	Average number laid by as spare.	Average number lent or hired out.	Average number working a—(f+g)
					Of each description of Vehicle.	Of each group.	Of each description of Vehicle.	Of each group.	
COACHING STOCK.									
BOGIE.	Governor's Saloon Carriage	...	...	1	11-23	22	...	...	1
	Inspection Carriage	...	...	1	10-76	22	...	...	1
	First Class Clemenson's	...	...	1	12-30	22	...	...	1
	Third Class do.	...	...	67	10-76	64	...	...	67
	Composite Carriage	...	...	20	11-61	25	...	...	20
FOUR-WHEELED.	Six-wheeled Third Class Carriage	...	...	37	10-26	64	...	...	37
	Inspection carriage Engineers	...	...	3	6-57	6-50	...	...	3
	First class do.	...	...	19	5-32	10	...	...	19
	Composite do.	...	...	44	5-75	13-13	...	...	44
	Second class do.	...	...	44	5-85	12	...	...	44
	Intermediate do.	...	...	...	...	...	...	...	...
	Third class do.	...	...	537	5-15	31-37	...	...	537
	Horse Boxes	...	...	30	5-25	1-17	...	...	30
	Carriage Trucks	...	...	5	3-16	3-00	...	...	5
	Luggage vans with brake	...	...	81	5-80	2-00	...	...	81
FOUR-WHEELED.	Post Office Vans	...	...	12	6-22	4-50	...	...	12
	Post Office Vans with luggage compartment and brake	...	...	6	5-61	...	...	...	6
	Total...	...	...	908	6-07	6-07	...	...	908
GOODS STOCK—									
FOUR-WHEELED.	Covered Goods Wagons	...	...	1,813	4-09	6-04	...	...	1,813
	Cattle Trucks	...	...	6	4-21	2-00	...	...	6
	Open Wagons	...	...	504	3-23	5-05	...	...	504
	High sided Wagons	...	...	813	3-72	6-00	...	...	813
	Cotton Trucks	...	...	63	4-80	3-88	4-50	5-97	63
	Timber Trucks	...	...	33	3-15	5-12	...	...	33
	Travelling cranes	...	...	3	19-00	Nil.	...	...	3
	Powder Vans	...	...	7	4-87	4-29	...	...	7
	Platform Wagons	...	...	4	2-76	6-00	...	...	4
	Water Tanks travelling	...	...	17	3-65	3-65	Nil.	...	17
SIX-WHEELED.	Tank Wagons for Carriage of Petroleum	...	...	10	7-78	9-32	...	...	10
	Cotton Trucks Clemenson's	...	...	14	7-86	7-64	10-00	9-73	14
	Ten Ton Boiler Truck	...	...	1	3-40	10-00	...	...	1
	Iron low sided Bogie Wagons	...	...	20	6-15	6-90	14-00	13-06	20
	Timber Trucks Bogie...	...	...	18	7-73	12-00	...	...	18
FOUR-WHEELED.	Brake Vans	...	...	52	6-77	6-77	...	...	52
	Total	...	...	3,378	3-98	3-98	6-07	6-07	3,378
GRAND TOTAL				4,286	...	...	...	...	4,286

RAILWAY.
(MADRAS AND PONDICHERY RAILWAYS.)
OF WORKING.—(contd.) HALF-YEAR ENDED 31st December 1896.
DIX II.
Vehicles.

MILEAGE OF				Ton mileage of Vehicle dead weight hauled on Home Line.	
FOREIGN VEHICLES ON HOME LINE.		HOME VEHICLES ON HOME LINE.		Home Vehicles on Foreign Lines.	Carrying Capacity hauled on Home Line.
Loaded.	Empty.	Loaded.	Empty.		
i.	k.	l.	m.	n.	o. p.
...	...	80	...	...	1,760 898
170	...	8,129	...	...	182,578 89,297
...	...	8,247	...	...	181,434 101,438
...	...	2,128,154	...	...	136,201,856 22,898,937
...	...	735,105	...	...	18,377,625 8,534,569
...	...	355,285	...	...	22,738,240 3,645,224
...	...	13,201	...	...	85,826 86,750
...	...	393,185	...	...	3,935,890 2,093,894
404	...	446,626	...	...	5,886,531 2,568,100
...	...	657,744	...	...	7,902,048 3,852,249
760	...	...	...	...	...
...	...	8,046,924	...	...	252,442,546 41,443,339
336	...	...	...	...	...
978	978	2,040,820	25,147	...	4,558,150 12,006,764
...	...	167,819	...	...	...
...	...	15,001,352	25,147	1,762	...
2,648	978	...	...	...	98,268,177
...	...	...	...	...	...
99,559	101,348	11,146,661	4,323,490	...	93,606,939 60,725,351
...	...	...	...	...	...
...	...	77,186	44,073	...	1,182,769 928,711
...	...	40,481	57,861	...	1,400,813 740,660
...	...	441,928	29,221	...	...
99,559	101,348	11,715,556	4,454,645	214,550	...
102,207	102,326	26,716,908	4,479,792	216,312	...
...	...	...	...	...	65,588,339
...	...	...	...	...	163,856,516

* Includes 590 miles run by Travelling crane
1,079 miles run by Travelling water tanks are not included in the mileage, columns i to o
Average mileage per diem run by ... Coaching Vehicles 81,685
Goods ditto 88,973

SOUTH INDIAN RAILWAY.

(INCLUDING MAYAVARAM—MUTUPET AND PONDICHERRY RAILWAYS).

APPENDICES TO ANALYSIS OF WORKING.—(contd.)

HALF YEAR ENDED 31st December 1896.

APPENDIX III.

Distribution of Mileage according to the traffic carried, giving total mileage of Home and Foreign Stock on Home line.

DESCRIPTION OF VEHICLES.	MILEAGE OF			REMARKS.
	Vehicles.	Carrying Capacity.	Dead weight.	
<i>Coaching—</i>				
First class	852,523	9,788,759	6,174,655	
Second class	1,271,069	20,251,095	9,723,250	
Third or Intermediate class	...	...	...	
Fourth or Lowest class	10,617,439	416,970,359	68,990,643	
Total Passenger vehicles	12,744,031	447,010,213	84,888,528	
Other coaching vehicles	1,899,703	4,221,720	11,031,095	
Total paying coaching mileage	14,643,734	...	95,919,623	
Passenger brake-vans	178,425	...	1,019,878	
Total coaching mileage including brakes	14,822,159	...	96,939,501	
<i>Goods—</i>				
Loaded Vehicles	11,359,213	68,459,804	44,483,606	
Empty do.	4,526,772	27,626,912	17,867,163	
Total paying goods mileage	15,885,985	96,086,716	62,350,769	
Goods Brake-vans	626,013	...	4,075,934	
Total goods mileage, including brakes	16,511,998	96,086,716	66,426,703	
<i>Miscellaneous—</i>				
Free mileage for inspection, &c.	67,076	...	490,312	
GRAND TOTAL	31,401,233	...	163,856,516	

SOUTH INDIAN RAILWAY.

APPENDICES TO ANALYSIS OF WORKING.—(Continued.)

HALF-YEAR ENDED 31st December 1896.

APPENDIX IV.

Maintenance of Way.

RAILS.

DETAILS.		IRON.				STEEL.				Total Iron and Steel.
		Double headed weighing 68 lbs. per yard.	Flat footed weighing 40·3 lbs. per yard.	Flat footed weighing 35·5 lbs. per yard.	Total.	Steel, weighing 41 lbs. per yard.	Steel, weighing 50 lbs. per yard.	Steel, weighing 56 lbs. per yard.	Total.	
1	Miles of rail in way, including sidings	304·06	256·20	2·38	562·64	847·48	937·54	2·18	1787·20	2,349·84
2	Rails removed ... Miles...	2·59	5·03	...	7·62	·01	·09	...	·10	7·72
3	New Rails laid ... Miles...	2·79	1·15	...	3·94	3·07	·21	...	3·28	7·22

Total mileage of Iron and steel Rails removed ...	7.72
Do. do. laid ...	7.22
Decrease	.50

Decrease is due to removal of sidings.

MAYAVARAM-MUTUPET RAILWAY.

APPENDICES TO ANALYSIS OF WORKING.—(Continued.)

HALF-YEAR ENDED 31st December 1896.

APPENDIX IV.

Maintenance of Way.

RAILS.

DETAILS.				IRON.				STEEL.			
				Double headed weighing 68 lbs. per yard.	Flat footed weighing 40-3 lbs. per yard.	Flat footed weighing 35-5 lbs. per yard.	Total.	Steel, weighing 41 lbs. per yard.	Steel, weighing 50 lbs. per yard.	Steel, weighing 56 lbs. per yard.	Total.
1	Miles of rail in way, including sidings	...	...	...	118-78	...	118-78	...	...	...	...
2	Rails removed	...	Miles.	...	1-62	...	1-62	...	...	...	...
3	New Rails laid	...	Miles.	...	1-62	...	1-62	...	...	...	...
Total mileage of Iron and Steel rails laid				...	...	...	...	...	1-62	...	...
Do. do. rails removed				...	...	...	...	...	1-62	...	...

SOUTH INDIAN RAILWAY.

APPENDICES TO ANALYSIS OF WORKING.—(continued.)

HALF-YEAR ENDED 31st December 1896.

APPENDIX V.

Maintenance of Way.

SLEEPERS.

DETAILS.	WOOD.						Iron.					STEEL TRANSVERSE SLEEPERS.	
	TRANSVERSE.					Longitudinal.							
	Cresoted Pine 9' x 10" x 5"	Cresoted round 6' x 10" x 5"	Teak of sizes.	Pingaloo 6'—6" x 5" x 4 1/2"	Total.		Pot sleepers Weighing 80 lbs.	Pot sleepers Weighing 70 lbs.	Pot sleepers weighing 57 lbs.	Total.	D. and O. Cast Iron sleepers.		
1	Number of Sleepers in way, including sidings at the commencement of the half-year ...	No. 202	No. 189,620	No. 65,123	No. 91,350	No. 246,355	Lineal ft. 100,352	Pairs. 221,880	Pairs. 907,600	Pairs. 22,251	Pairs. 1,151,731	Pairs. 93,705	No. 747,162
2	Average age of Sleepers in way at the end of the half-year... Years...	34.36	14.35	17.95	4.02	12.46	10.71	26.21	7.18	5.50	11.15	8.91	5.53
3	Number removed ...	7	6,970	73	3,232	10,282	81	63	92	10	165	95	31
4	Number laid ...	...	30	85	7,484	7,519	81	245	302	1,043	1,590	95	221
5	Percentage of removals on total of each class (1) ...	2.67	3.67	.11	3.54	2.97	.08	.03	.01	.04	.01	.10	.004
6	Number of sleepers in way, including sidings at the end of the half-year ...	255	182,680	65,135	95,602	343,672	100,352	222,062	907,810	23,284	1,153,156	93,705	747,332

Total number of wooden Iron and steel sleepers laid ... 9,505
Do. do. do. Removed ... 10,573

Decrease... 1,068

Decrease is due to removal of sidings...

MAYAVARAM-MUTUPET RAILWAY.

APPENDICES TO ANALYSIS OF WORKING.—(continued.)

HALF-YEAR ENDED 31st December 1896.

APPENDIX V.

Maintenance of Way.

SLEEPERS.

DETAILS	WOOD.						Iron.					STEEL TRANSVERSE SLEEPERS.
	TRANSVERSE.					Longitudinal.						
	Crescoted Pine 9' x 10" x 5"	Crescoted round 6' x 10" x 5"	Teak of sizes.	Pingadoo 6'—6" x 9" x 4½"	Total.		Pot sleepers Weighing 80 lbs.	Pot sleepers Weighing 70 lbs.	Pot sleepers Weighing 57 lbs.	Total.		D. and O. Cast Iron sleepers.
No.	No.	No.	No.	No.	Lineal feet.	Pairs.	Pairs.	Pairs.	Pairs.	Pairs.	No.	
1 Number of Sleepers in way, including sidings at the commencement of the half-year	...	...	1,251	118,286	119,537	2,332	...	...	...	...	...	781
2 Average age of Sleepers in way at the end of the half-year Years...	...	...	2.75	2.74	2.74	2.75	...	...	...	...	...	2.00
3 Number removed	...	...	...	9	9	...	...	...	...	...	...	...
4 Number laid	...	...	...	9	9	...	...	...	...	...	...	...
5 Percentage of removals on total of each class (1)	...	...	...	.007	.007	...	...	...	...	...	...	...
6 Number of sleepers in way, including sidings at the end of the half-year	...	...	1,251	118,286	119,537	2,332	...	...	...	...	...	781

Total number of wooden Iron and steel sleepers laid... 9
Do. do. do. removed... 9

PONDICHERRY RAILWAY.

APPENDICES TO ANALYSIS OF WORKING.—(Continued.)

HALF-YEAR ENDED 31ST DECEMBER 1896.

APPENDIX IV.

Maintenance of Way.

RAILS.

DETAILS.	IRON.				STEEL.				Total Iron and Steel.
	Double headed weighing 68 lbs. per yard.	Flat footed weighing 40·3 lbs. per yard.	Flat footed weighing 33·5 lbs. per yard.	Total.	Steel, weighing 41 lbs. per yard.	Steel, weighing 50 lbs. per yard.	Steel, weighing 56 lbs. per yard.	Total.	
1 Miles of rail in way, including sidings ...	...	14·68	...	14·68	3·88	·68	...	4·56	19·24
2 Rails removed ... Miles...	...	·09	...	·09	...	...	...	...	·09
3 New Rails laid ... Miles...	...	·09	...	·09	...	...	...	...	·09

Total mileage of Iron and steel Rails laid ... ·09
 Do. do. removed ... ·09

PONDICHERRY RAILWAY.

APPENDICES TO ANALYSIS OF WORKING.—(concluded.)

HALF-YEAR ENDED 31st December 1896.

APPENDIX V.

Maintenance of Way.

SLEEPERS.

DETAILS	WOOD.						IRON.						STEEL TRANSVERSE SLEEPERS.
	TRANSVERSE.						Longitudinal.						
	Crescoted Pine 9' x 10" x 5"	Crescoted round 6' x 10" x 5"	Teak of sizes.	Pingadoo 6'-6" x 9" x 4½"	Total.		Pot sleepers Weighing 80 lbs.	Pot sleepers Weighing 70 lbs.	Pot sleepers Weighing 57 lbs.	Total.	D. and O. Cast Iron sleepers.		
1 Number of Sleepers in way, including sidings at the commencement of the half-year	No. ...	No. 12,594	No. 1,149	No. 5,327	No. 19,070	Linear feet. 2,567	Pairs. ...	Pairs. 673	Pairs. 135	Pairs. 808	Pairs. ...	No. ...	
2 Average age of Sleepers in way at the end of the half-year	Years... ..	14.42	15.04	3.96	11.85	17.00	...	10.50	9.08	10.29	...	...	
3 Number removed	...	...	...	200	200	...	...	...	...	...	...	...	
4 Number laid	...	...	...	200	200	...	...	...	...	...	...	...	
5 Percentage of removals on total of each class (1)	...	...	...	3.75	1.05	...	...	...	...	...	...	...	
6 Number of sleepers in way, including sidings at the end of the half-year	No. ...	No. 12,594	No. 1,149	No. 5,327	No. 19,070	2,567	...	673	135	808	...	...	

Total number of wooden Iron and steel sleepers laid... 200
 Do. do. removed... 200

A. no : 236 R a/6 April 1897

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

Print

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Letter from the Agent S.R. H. S. No: 367 of 2nd April 1897

180

Print

Ordered that nine copies
of the Analysis of working
of the South Indian Railway
(including the Payanaram
Kuntupul & Pondicherry Rys)
for the half year ending the
31st Dec: 1896, be forwarded
to the Director General of
Railways and to the Secy
of the Board of State for India.

To The Agent S.R.

Examiner of Railways Acc.

To The Director General of Ry.

Siula

H. S. No: 237 R of 6th April 1897

Forwarded.

Documents accompanying
9. Copies of Analysis of working information

H. S. No: 14/236 R of 6th April 1897

To The Rt Honble the Secy of State
for India

My Lord,

We have the honour
to forward herewith a copy
of the Analysis of working

Print

of our Proceedings of Jan N^o 236R
of ^{the} 2^d April 1897, embodying the
analysis of working in the
Railway (including the
arrangement described in the
Cherry Railway) for the half
year ended the 31st Dec 1896.

4/4

RR R
3-4-97

11
3/4/97