

Public Works (1893) Department.

RAILWAY BRANCH.

G.O., No. 883 R

DATED 16th May

[Despatch Abstract.]

Analysis of working, Madras Railway. — Forwarding
Ten copies of the — for the half-year ended 31st Decr
1892.

Forwarding a copy of the — for the half-year
ended 31st Decr 1892.

[illegible][illegible]

PUBLIC WORKS DEPARTMENT.

Railway.

LETTER—from

F. R. UPCOTT, Esq.,

Joint Secretary to the Government of Madras,

Public Works Department,

Railway Branch,

To

THE DIRECTOR-GENERAL OF RAILWAYS,

SIMLA.

SIR,

With reference to letter from the Government of India letter No. 2112 G., dated 8th August 1891, I am directed to forward, herewith, ten copies of the Analysis of Working, Madras Railway, for the half-year ended 31st December 1892.

I have the honour to be,

Sir,

Your most obedient servant,

Joint Secy. to Govt., P.W.D.,
Railway Branch.

OOTACAMUND,
16th May 1893.

Exd. C. A. Munisawmy
Spare Copies

RAILWAY.

Govt. of {1893} Madras.
PUBLIC WORKS.

Dated May, 16th.

Recd.

Encl.

16th May 1893, No. 883 R.

MAY.

Analysis of Working, Madras
Railway

Forwarding ten copies of the — for the
half-year ended 31st December 1892.

16TH MAY 1893, No. ⁴/₈₈₃ R., PUBLIC WORKS.

PUBLIC WORKS DEPARTMENT.

LETTER—to

THE RIGHT HONORABLE THE SECRETARY OF STATE FOR INDIA.

MY LORD,

We have the honour to forward, herewith, a copy of the Analysis of Working,
Madras Railway, for the half-year ended 31st December 1892.

We have the honour to be,

My Lord,

Your Lordship's most obedient, humble servants,

(Signed) WENLOCK.

(„) H. E. STOKES.

(„) J. H. GARSTIN.

OOTACAMUND,
16th May 1893.

Exd. C. A. Munisawmy.

PUBLIC WORKS DEPARTMENT.

LETTER to the Right Honorable
the Secretary of State for
India.

FORWARDING a copy of the Analysis of Working, Madras Railway, for the half-year ended 31st December 1892.

MADRAS RAILWAY.

From

THE AGENT AND MANAGER.

To *The Consulting Engineer
for Railways.*

Dated 11th } April 1893.
Received }

No. R 29
300

The undersigned has the honor to forward
herewith 30 copies of the Analysis
of Working of the Madras Railway
for the half year ended the
31st December 1892.

Emile S. M. S.
Agent and Manager.

P. W. CURRENT No. 3845

Encls 1
Recd: 22.4.93

1

Madras Railway Company.

ANALYSIS OF WORKING

FOR THE

Half-Year ending 31st December, 1892.

VEST AND COMPANY, PRINTERS, MOUNT ROAD, MADRAS.

Pa 51
3845/93

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MADRAS RAILWAY COMPANY.

Analysis of Working for the Half-year ended 31st December, 1892.

Progressive Number.	HEADINGS.	REMARKS.
No. I.		
DESCRIPTION OF RAILWAY WORKED.		
1	Gauge of Railway ... Miles	Ft. In. 5 6
2	Mean mileage worked ...	839.225
3	Number of Stations ...	139
4	Total length of the following gradients:—	Nil.
	(a) $\frac{1}{80}$ and less ...	17.99
	(b) $\frac{1}{40}$ to $\frac{1}{80}$...	48.09
	(c) $\frac{1}{20}$ to $\frac{1}{40}$...	197.14
	(d) $\frac{1}{10}$ to $\frac{1}{20}$...	123.86
	(e) $\frac{1}{5}$ to $\frac{1}{10}$...	
5	Steepest gradient worked—	0.80
	(a) Length ...	1 in 60
	(b) Inclination ...	
No. II.		
FINANCIAL RESULTS.		
6	Percentage of net earnings (including Steam-boat traffic) on Capital outlay ... Per cent.	1.85
7	Percentage of net earnings on paid up capital ...	1.84
No. III.		
OUTLAY, EARNINGS AND EXPENSES.		
<i>(Exclusive of Steam-boat Service.)</i>		
8	Capital outlay per mile open ...	Rs. 1,39,300
9	Total earnings per mile open per week ...	223.63
10	Total working expenses per mile per week ...	121.88
11	Total earnings per train-mile ...	3.828
12	Total working expenses per train-mile ...	2.086
13	Net earnings per train-mile ...	1.742
14	Cost per 1,000 gross ton-miles moved (freight and dead weight) ...	7.49
15	Percentage of total working expenses upon total earnings ... Per cent.	54.50
16	Percentage of total working expenses upon total earnings, excluding from both sides of the account the charges for carriage of revenue stores... ..	53.95
<i>(Inclusive of Steam-boat Service.)</i>		
17	Percentage of total working expenses on total earnings (for details, see Table No. VII) ...	54.50
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. 25,70,887
	Proportions, dividing expenditure in ratio of gross ton-mileage (freight and dead load). ...	
19	Coaching ...	10,34,557
20	Goods ...	15,36,330

Excluding £12,014-1-4. Capital not bearing interest.

ANALYSIS OF WORKING

For the Half-year ended 31st December, 1892.

Progressive Number.	HEADINGS.	REMARKS.
No. V.		
COACHING TRAFFIC.		
GROSS RECEIPTS AND TRAIN-MILEAGE—		
21	Receipts from coaching traffic Rs.	19,13,906
22	Coaching train-miles run No.	639,360
23	Average coaching receipts per train-mile Rs.	2 99
UNITS AND UNIT MILEAGE—		
Number of units carried one mile—		
24	1st Class Unit miles	1,498,864
25	2nd " "	3,981,253
26	3rd or Intermediate class "	
27	4th or Lowest " "	170,929,363
28	Total passenger unit mileage "	176,409,480
29	Other coaching traffic "	1,389,761
Average sum received for carrying a unit one mile—		
30	1st Class Pies	10-32
31	2nd " "	5-34
32	3rd or Intermediate class "	
33	4th or Lowest " "	1-64
34	Average for all classes " "	1-79
35	Other coaching traffic per ton-mile "	36-88
Average number of units in a train—		
36	1st Class No.	2-34
37	2nd " "	6-23
38	3rd or Intermediate class "	
39	4th or Lowest " "	267-34
40	Total passenger units " "	275-91
41	Other coaching traffic " Tons	2-17
VEHICLES AND VEHICLE MILEAGE—		
Number of coaching vehicles hauled one mile—		
42	1st Class Vehicle miles	923,613
43	2nd " "	976,058
44	3rd or Intermediate class "	
45	4th or Lowest " "	6,341,064
46	Other vehicles " "	697,505
47	Brake Vans "	1,384,119
48	Total "	10,322,359
Average number of vehicles in a coaching train—		
49	1st Class No.	1-44
50	2nd " "	1-53
51	3rd or Intermediate class "	
52	4th or Lowest " "	9-92
53	Other vehicles " "	1-09
54	Brake Vans... .. "	2-16
55	Total "	16-14
Average earnings per coaching vehicle per mile—		
56	1st Class Pies	16-75
57	2nd " "	21-78
58	3rd or Intermediate class "	
59	4th or Lowest " "	44-07
60	Other vehicles " "	73-49
Carrying capacity hauled one mile (excluding brakes)—		
61	1st Class Seats	10,007,976
62	2nd " "	19,700,290
63	3rd or Intermediate class "	
64	4th or Lowest " "	323,774,728
65	Other vehicles " Tons	2,706,926
Percentage of freight upon capacity hauled—		
66	1st Class Per cent.	14-98
67	2nd " "	20-21
68	3rd or Intermediate class... .. "	
69	4th or Lowest " "	52-79
70	Other vehicles " "	51-34

ANALYSIS OF WORKING

For the Half-year ended 31st December, 1892.

Progressive Number.	HEADINGS.	REMARKS.
WEIGHT OF TRAIN AND TON-MILEAGE—		
Gross ton-mileage of all coaching trains—		
71	Freight Ton-miles.	12,113,909
72	Dead weight "	126,066,026
73	Total "	138,179,935
Average weight of a coaching train—		
74	Freight Tons.	18-95
75	Dead weight "	197-17
76	Total "	216-12
COST OF WORKING AND PROFITS—		
77	Average cost of hauling a coaching train one mile ... Rs.	1-62
78	Average cost of hauling a coaching vehicle with its load one mile ... Pies.	22-23
Average cost of hauling a coaching unit one mile—		
79	Per passenger unit Pies.	1-03
80	Other traffic per ton Rs.	11-81
81	Average profit on working a coaching train one mile... Rs.	1-37
Average profit on working a coaching vehicle one mile—		
82	1st Class Pies.	MINUS 5-47
83	2nd " "	Do. 44
84	3rd or Intermediate class "	
85	4th or Lowest " "	21-85
86	Other vehicles " "	51-27
Average profit on working a coaching unit one mile—		
87	Per passenger unit Pies.	76
88	Other traffic per ton "	25-07
No. VI.		
GOODS TRAFFIC.		
GROSS RECEIPTS AND TRAIN-MILEAGE—		
89	Receipts from goods traffic Rs.	28,77,064
90	Goods train-miles run No.	635,242
91	Average goods receipts per train-mile Rs.	4-53
UNITS AND UNIT MILEAGE—		
92	Tons of goods carried one mile Ton-miles.	66,833,402
93	Average sum received for carrying a ton one mile ... Pies.	8-27
94	Average number of tons in a train Tons.	105-21

ANALYSIS OF WORKING For the Half-year ended 31st December, 1892.

Progressive Number.	HEADINGS.	REMARKS.
VEHICLES AND VEHICLE MILEAGE—		
Number of goods vehicles hauled one mile—		
95	Loaded	
96	Empty	
97	Brake Vans	
98	Total	
		<i>Vehicle miles</i>
		10,852,782
		3,077,198
		1,206,466
		15,136,446
Average number of vehicles on a goods train—		
99	Freight vehicles	
100	Brake Vans	
101	Total	
102		<i>No.</i>
		21.93
103	Average earnings per goods vehicle per mile (excluding brakes)	
104	Carrying capacity hauled one mile (excluding brakes)	
105	Percentage of freight upon capacity hauled.	
106	Average load of a goods vehicle (including both loaded and empty)	
		<i>Pies.</i>
		39.65
		<i>Tons.</i>
		151,231,124
		<i>Per cent.</i>
		44.19
		<i>Tons.</i>
		4.80
		6.16
WEIGHT OF TRAIN AND TON-MILEAGE—		
Gross ton-mileage of all goods trains—		
107	Freight	
108	Dead weight	
109	Total	
		<i>Tons.</i>
		66,833,402
		138,365,378
		205,198,780
Average weight of a goods train—		
110	Freight	
111	Dead weight	
112	Total	
		<i>Tons.</i>
		105.21
		217.81
		323.02
COST OF WORKING AND PROFIT—		
113	Average cost of hauling a goods train one mile	
114	Average cost of hauling a goods vehicle with its load one mile	
115	Average cost of hauling a goods unit (<i>viz.</i> , one ton)	
115A	Do.	
	interest on capital expended on open line, &c.	
116	Average profit on working a goods train one mile	
117	Average profit on working a goods vehicle with its load one mile	
118	Average profit on working a goods unit (<i>viz.</i> , one ton)	
		<i>Rs.</i>
		2.42
		<i>Pies.</i>
		21.17
		"
		4.41
		"
		9.55
		<i>Rs.</i>
		2.11
		<i>Pies.</i>
		18.18
		"
		3.86

ANALYSIS OF WORKING For the Half-year ended 31st December, 1892.

Progressive Number.	HEADINGS.	REMARKS.
No. VII.		
DETAILED PERCENTAGES OF EARNINGS AND EXPENDITURE.		
<i>Percentage to Total Earnings—</i>		
119	Coaching Traffic	<i>Per cent.</i>
120	Goods Traffic	
121	Sundries, including telegraph	
122	Steam-boat Earnings	
	Total Earnings	39.22
		58.96
		1.82
		...
		100.00
<i>Percentage of Working Expenses upon Total Earnings—</i>		
123	Maintenance	<i>Per cent.</i>
124	Locomotive Expenses	
125	Carriage and Wagon Expenses	
126	Traffic Expenses	
127	General Charges	
128	Miscellaneous Charges	
129	Steam-boat Expenses	
130	Total Working Expenses	15.98
		18.96
		4.36
		8.51
		5.52
		1.17
		...
		54.50

ANALYSIS OF WORKING

For the Half-year ended 31st December, 1892.

No. VIII.—WORKING EXPENSES.

TABLE A.

Maintenance of Way, Works and Stations.

REFERENCE TO REVENUE ACCOUNT.		Progressive number in analysis.	DETAILS.	Per mile of line maintained.	Per mile of track, including sidings.	Per total train-mile.	Per 1,000 gross ton-miles.
Table and main head.	Sub-head.			(839.22)	(1,009.95)	(1,274,602)	(343,378,715)
IX (A)	1	1 & 2 3 to 5 6	General Superintendence—				
			Engineers' salaries and allowances	Rs. 63.14	Rs. 56.62	As. .72	Rs. .17
			Subordinate Superintendents' salaries and allowances, including overtime	50.06	41.60	.53	.13
	2	1 2	Office expenses	12.75	35.52	.45	.10
			Total...	160.95	133.74	1.70	.40
			Maintenance and Renewal of Permanent-way—				
	3	1 2	Wages				
			Materials	178.64	143.13	1.88	.43
			Total...	252.34	209.67	2.66	.62
	3(A)	1 2	Repairs of Bridges, &c.—				
			Wages and Materials—				
			Bridges and tunnels	111.54	92.68	1.17	.27
	4	1 2	Miscellaneous	52.91	43.97	.56	.13
			Total...	164.45	136.65	1.73	.40
			Conservancy of Rivers				
	5	1 2	Repairs of Stations and Buildings—Wages and Materials—				
			Repairs of all, except staff quarters	79.96	66.44	.84	.19
			Repairs of staff quarters	27.33	22.71	.29	.07
	6	1 2	Total...	107.29	89.15	1.13	.26
			Maintenance by Contract—				
			Amount paid to contractors				
	7	1 2 3 4 5	Materials supplied by the Railway				
			Total...	15.00	12.46	.16	.04
			New Minor Works				
	136	1 2 3 4 5	Unclassified Expenditure—				
			Plantations	1.49	1.24	.02	.01
			Tools and Plant	5.11	4.25	.05	.01
	137	1 2 3 4 5	Loss by exchange	137.07	113.89	1.44	.34
			Loss on stores, &c.	29.81	24.77	.32	.07
			Freight on stores				
	138	1 2 3 4 5	Total...	173.48	144.15	1.83	.42
			Total, Heads 5, 6 and 7	188.48	156.61	1.98	.46
			Less Credits	122.65	101.91	1.29	.30
	139	1 2 3 4 5	Net Total, other charges	65.83	54.70	.69	.16
			Total Maintenance...	929.49	772.34	9.79	2.27

ANALYSIS OF WORKING

For the Half-year ended 31st December, 1892.

No. VIII.—WORKING EXPENSES.

TABLE B.
Locomotive Expenses.

REFERENCE TO REVENUE ACCOUNT.		Progressive number in analysis.	DETAILS.	Per Total train-mile.	Per engine mile.	Per 1,000 gross ton-miles.
Table and main head.	Sub-head.			(1,274,602)	(1,502,333)	(343,378,715)
IX (B)	1	1 & 2 3 to 5 6	General Superintendence—	As.	As.	Rs.
			Salaries of superintendents and assistants, including allowances	.18	.15	.04
			Do. of subordinate do. including do.	.30	.26	.07
	2	1 & 2 3 4	Office expenses	.24	.20	.06
			Total...	.72	.61	.17
			Running Expenses—			
	3	1 to 4	Wages of drivers and firemen, including overtime	1.96	1.67	.46
			Fuelling, cleaning and looking after engines	.34	.30	.08
			Contingent expenses	.02	...	...
	4	1 & 2 3 4	Total...	2.32	1.97	.54
			Fuel—(In terms of Kurhurbaree Coal).	lbs.	lbs.	lbs.
			Average quantity consumed	47.97	40.70	178.08
	5	1 & 2 3 4	Average price per ton Rs. 12.39.	As.	As.	Rs.
			Do. cost	4.25	3.60	.98
			Water—(including wages and stores.)	.16	.14	.04
	6	1 & 2 3 4	Oil, Tallow and other Stores	.28	.24	.06
			Maintenance and Renewals of Engines—			
			Wages, including overtime	1.48	1.26	.35
	7	1 & 2 3 4	Materials	.97	.82	.22
			Total...	2.45	2.08	.57
			Maintenance and Renewals of Machinery—			
	8	1 & 2 3 4	Wages, including overtime	.55	.46	.12
			Materials	.11	.10	.03
			Total...	.66	.56	.15
	9	1 & 2 3 4	New Minor Works—			
			Payments to other Lines—			
			Unclassified Expenditure—			
	10	1 & 2 3 4	Loss by exchange	.38	.32	.09
			Loss on stores, &c.	.39	.33	.09
			Freight on stores			
	11	1 & 2 3 4	Total...	.77	.65	.18
			Total, Heads 7, 8 and 9	.77	.65	.18
			Less Credits			
	12	1 & 2 3 4	Net Total, other charges	.77	.65	.18
			Total Locomotive Expenses	11.61	9.85	2.69

ANALYSIS OF WORKING
For the Half-year ended 31st December, 1892.
No. VIII.—WORKING EXPENSES.

TABLE C.
Carriage and Wagon Expenses.

REFERENCE TO REVENUE ACCOUNT.		Progressive num- ber in analysis.	DETAILS.	Per total train-mile. (1,274,602)	Per 1,000 vehicle miles run by home vehicles. (24,475,693)
Table and main-head.	Sub- head.				
IX (C) 1	1 & 2 3 to 5 6	146	General Superintendence—	As.	Rs.
			Salaries of superintendents, including allowances ...	·04	·14
			Do. of subordinate do. including do. ...	·07	·23
	2	147	Office expenses ...	·06	·18
			Total...	·17	·55
			Repairs and Renewals of Vehicles—		
	1 to 3	147	Coaching vehicles ... { Wages, including overtime ...	·37	2·86
			Materials ...	·21	1·59
			Total...	·58	(a) 4·45
	1 to 3	148	Goods vehicles ... { Wages, including overtime ...	·47	2·63
			Materials ...	·47	2·65
			Total...	·94	(b) 5·33
	2a	148a	Repairs and Renewals of Machinery—		
			Wages including overtime ...	·31	1·02
			Materials ...	·08	·24
	3	149	Total ...	·59	1·26
			Cleaning and oiling—		
			Labour, including wages of oilers, &c. ...	·23	·75
	4	149	Stores ...	·17	·54
			Total...	·40	1·29
			New Minor Works ...	...	...
	5	150	Unclassified Expenditure—		
			Loss by exchange ...	·19	·63
			Loss on stores, &c. ...	...	...
	5	151	Freight on stores ...	...	...
			Total, Heads 4 and 5 ...	·19	·63
Less Credits ...			·19	·63	
5	151	Net Total, other charges ...	...	...	
		Total Carriage and Wagon Expenses ...	·19	·63	
		Total ...	2·67	8·70	

(a.) Per 1,000 Coaching Vehicle Miles
(b.) Per 1,000 Goods Vehicle Miles.

ANALYSIS OF WORKING
For the Half-year ended 31st December, 1892.
No. VIII.—WORKING EXPENSES.

TABLE D.
Traffic Expenses.

REFERENCE TO REVENUE ACCOUNT.		Progressive num- ber in analysis.	DETAILS.	Per total train- mile.		Per cent. of traffic earnings. Abstracts H and I.
Table and main-head.	Sub- head.			(1,274,602)	(47,90,970)	
IX (D) 1	(a) 1 & 3	152	<i>General Superintendence—</i>	As.	Per cent.	
			Traffic Manager, Assistants, &c., including travelling allowances ...	·42	·70	
			Office establishment and contingencies ...	·38	·62	
	(a) 2 & 4	152	Total ...	·80	1·32	
				2·37	3·94	
	(b)	153	Station Staff ...	·58	·98	
			Train Staff ...	·60	·99	
	(c)	154	Fuel, Lighting, Water and General Stores ...	·07	·12	
			Clothing ...	·48	·79	
	1 to 3	155	Printing, Stationery and Tickets ...	·01	·02	
			Charges for Delivery and Collection of Goods, &c. ...	·04	·06	
	2	156	Miscellaneous Expenses ...	·06	·11	
			Payments to other Lines—			
	3	157	Expenses at joint stations ...	·19	·32	
			Unclassified Expenditure—			
	4	158	Loss by exchange ...	·02	·04	
			Loss on stores, &c. ...			
	5	159	Freight on stores ...	·21	·36	
			Total, Head 8 ...	·01	·02	
	6	160	Less Credits ...	·20	·34	
			161 Net Total, other charges	5·21	8·67	
	7	162	Total Traffic Expenses			

ANALYSIS OF WORKING
For the Half-year ended 31st December, 1892.
No. VIII.—WORKING EXPENSES.

TABLE E.
General Charges.

REFERENCE TO REVENUE ACCOUNT.		Progressive num- ber in analysis.	DETAILS.	Per total train- mile.	Per cent. on total earnings.
Table and main-head.	Sub- head.			(1,274,602)	(48,79,568)
IX (E) 1	1 to 4	163	Home Expenditure	As. ·41	Per cent. ·68
			<i>Indian Management—</i>		
	1	164	Agent's Office, including travelling allowances and contingencies	·27	·44
	2		Auditor's Office ditto ditto	·82	1·34
	3		Account's Office ditto ditto		
	4		Paymaster's Office ditto ditto		
		165	Total 2 to 4 ...	·82	1·34
	5	166	Store Department, ditto ditto	·14	·22
	6	167	Medical Department, ditto ditto	·22	·37
	7		Rents		
	8 to 10		Miscellaneous expenses, including printing, stationery, medicine and contributions to Hospitals	·11	·18
		168	Total 7 to 10 ...	·11	·18
3	1 to 3	169	Police	·26	·42
4	...	170	Advertising	·03	·05
			<i>Electric Telegraph—</i>		
	1 to 4		Salaries, &c.	·61	·99
	5		Maintenance (wages and stores)	·25	·40
	6		Government Telegraph Department for rent, maintenance and inspection		·01
		171	Total ...	·86	1·40
6	...		Clearing accounts with other Lines		
			<i>Unclassified Expenditure—</i>		
	1		Loss on stores, &c.		·07
	2		Expenses connected with Fire-engines	·04	·40
	3		Loss by exchange	·25	·02
	4		Freight on stores	·01	
			Total ...	·30	·49
			Total, Heads 6 and 7	·30	·49
			Less Credits	·04	·07
		172	Net Total, other charges	·26	·42
		173	Total General Charges	3·88	5·52

ANALYSIS OF WORKING
For the Half-year ended 31st December, 1892.
No. VIII.—WORKING EXPENSES.
TABLE F.
Steam Boat Service.

NIL.

TABLE G.
Special and Miscellaneous Expenditure.

REFERENCE TO REVENUE ACCOUNT.		Progressive num- ber in analysis.	DETAILS.	Per cent. on total earnings. (48,79,568)
Table and main-head.	Sub- head.			Per cent. ·02
IX (G) 1	...	174	Law Charges	
			<i>Compensation—</i>	
			For goods lost or damaged	·05
	2	1	" personal injury	
	3	2	" other claims	
			Total ...	·05
		175		·32
3	...	176	Rates and Taxes	
			<i>Payments to other Lines—</i>	
			Hire of locomotives	
	4	1	" of vehicles	·23
	2	2	Mileage of foreign stock	
	3	3	Rent of stations, &c., jointly occupied	
	4	4	Total ...	·23
		177		
6	...		<i>Contributions to—</i>	
			Railway Provident Institution	·41
				·16
5 & 7	...		Miscellaneous	·57
			Total, Heads 5 to 7	·02
			Less Credits	·55
		178	Net Total, other charges	
		179	Total Special and Miscellaneous Expenses	1·17

MADRAS RAILWAY,
CHIEF AUDITOR'S OFFICE,
28th March, 1893.

FRED. DUNSTERVILLE,
Chief Auditor.

LOUIS S. MOSS,
Agent and Manager.

APPENDICES.

APPENDICES TO ANALYSIS OF WORKING
For the Half-year ended 31st December, 1892.

APPENDIX I.

Working of Locomotives.

REFERENCE TO REVENUE ACCOUNT.			Passenger.	Goods.	Tank.	Total.
Table and main-head.	Sub- head.					
		Locomotives { 1.—Wheels coupled ... } 2.—Weight on driving axle ... 3.—Weight of engine in steam ... 4.—Weight of tender loaded ...	Single driving wheels. Tons. 13.25 32.30 25.15	4 and 6 wheels coupled. Tons. 12.16 32.33 26.09	Single driving wheels 4 wheels coupled. Tons. 14.00 38.45 ...	
XII	5	1.—Number of locomotives erected and made over to Locomotive Department ...	2	138	13	153
	11	2.—Average number of locomotives constantly under repairs and renewals ...	1	38	1	40
		3.—Number of locomotives laid by as spare ...	...	...	...	...
		4.—Ditto lent or hired out to other lines ...	...	...	...	...
		5.—Average number of locomotives 1—(3+4)...	2	138	13	153
		6.—Total mileage of locomotives (5) ...	23,694	1,375,593	103,046	1,502,333
		7.—Average miles run by a locomotive of each class 6+5 ...	11,847	9,968	7,927	9,819
		Per diem...	64.39	54.17	43.08	53.36
		lbs.	lbs.	lbs.	lbs.	lbs.
		8.—Weight of Coal, &c., used per engine-mile ... } To be separated, if possible, among the classes of locomotives.	35.29	41.36	33.13	40.70
		9.—Weight of wood used per engine-mile ... }				
			Passenger trains.	Goods trains.	Mixed trains.	
		10.—Average gross weight of trains hauled. Tons.	129.49	341.66	236.76	216.73
		11.—Average speed between stations... Miles per hour.	24.89	15.88	17.67	...
		12.—Average through speed... Miles per hour.	19.67	10.99	12.56	...
		13.—Average consumption of fuel per engine mile, lbs	...	...	...	40.70

NOTE—The fuel consumed by the different classes of locomotives on this line is expressed in terms of Kurlhurbaree Coal as per Government of India Circular 7 of 19th June, 1891, the ratio of conversion being:—

Patent Fuel 0.80
Singareni coal 1.02
Borakur 0.92
Wood 2.33 } to 1.00 of Kurlhurbaree Coal.

ANALYSIS OF WORKING
ended 31st December, 1892
DIX II.
Vehicles.

Foreign vehicles on Home Line.		Home vehicles on Home Line.		Home vehicles on foreign lines.	Carrying capacity hauled on Home Line	Ton-mileage of vehicle dead weight hauled on Home Line.
Loaded.	Empty.	Loaded.	Empty.			
					17,724	47,412
			1,503	...	483,892	1,131,098
		2,028	7,026	...	23,559	87,561
73,056	3,644	37,247	1,235	...	3,514,008	4,194,847
1,554	...	5,064	20,167	...	13,716,956	6,390,854
		419,084	93,027	...		
66,656	2,346	461,469			323,574,215	52,598,237
			234,636	...		
11,969	6,559	6,083,973			11,937,587	7,050,198
			19,211	...	34,248	81,339
3,265	675	679,060	1,040	...	...	...
		7,522	...	...	...	...
...	...	...	...	...	14,540	12,795
...	...	...	...	...	918,548	2,981,747
...	...	...	312	...	474,576	407,344
...	...	1,142	...	...	545,233	532,651
63,333	769	218,528	35,930	...	750,594	2,089,153
1,053	1,053	41,060	25,790	...	...	12,526,277
484	484	57,124	81,029	...		
10,390	10,390	148,389	1,381,661	...		
...	2,458	...				
				321,944	Nil.	90,131,513
231,760	28,378	8,162,590	1,902,567			
					74,463,081	39,967,302
627,166	627,166	3,826,154	1,463,660	...	261,144	161,583
				...	419,720	304,297
...	...	13,964	18,679	...	480,470	615,001
...	...	25,903	26,562	...		
...	...	50,653	45,441	...	72,209,135	48,457,926
			721,165	...	2,677,131	1,546,787
...	...	6,103,895	152,761	...	29,390	35,267
...	...	144,698	3,070	...	78,100	46,755
...	...	3,461	2,756	...	660,195	623,518
...	...	3,103	16,008	...	12,227	38,080
...	...	57,347	230	...	...	...
...	...	2,064		...	...	10,918,517
...	...	...	1,206,466	...		
...	...	...				
627,166	627,166	10,231,242	3,656,798	200,552	Nil.	102,715,033
				522,496	Nil.	192,846,546
858,926	655,544	18,393,832	5,559,365			

558,926	655,544	
has been entered the number of Vehicles broken up awaiting renewal.		
home line by Coaching Vehicles (including brakes)	56,115 73.	
Goods	do.	82,295 50.

APPENDICES TO ANALYSIS OF WORKING

For the Half-year ended 31st December, 1892.

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	923,613	10,007,976	8,986,017	
Second „	976,058	19,700,290	9,928,748	
Third „	6,341,064	323,774,728	52,626,066	
Total passenger vehicles	8,240,735	353,482,994	71,540,831	
Other coaching vehicles	697,505	2,706,926	6,022,958	
Total paying coaching mileage	8,938,240	Nil.	77,563,789	
Passenger brake-vans	1,384,119	Nil.	12,526,277	
Total coaching mileage including brakes	10,322,359	Nil.	90,090,066	
<i>Goods—</i>				
Loaded vehicles	10,852,782	117,829,603	72,230,027	
Empty vehicles	3,077,498	33,401,521	19,526,597	
Total paying goods mileage	13,930,280	151,231,124	91,756,624	
Goods brake-vans	1,206,466	...	10,918,517	
Total goods mileage, including brakes	15,136,746	151,231,124	102,675,141	
<i>Miscellaneous—</i>				
Free mileage for inspections, &c.	8,562	34,248	81,339	
Grand Total	25,467,667	Nil.	192,846,546	

APPENDICES TO ANALYSIS OF WORKING

For the Half-year ended 31st December, 1892.

APPENDIX IV.—Maintenance of Way-Rails.

DETAILS.	IRON.			STEEL.		
	Double head- ed weighing 65 lbs. per yard.	Double head- ed weighing 75 lbs. per yard.	Double head- ed weighing 84 lbs. per yard.	Steel weigh- ing 75 lbs. per yard.	Steel flat foot- ed on Bridges weighing 75 lbs. per yd.	Total. Total Iron and Steel.
1 Miles of rail in way, including sidings	427,5502	800,4392	100,6502	680,3750	10,9418	2,019,9624
2 Rails removed, Miles	17,0871	12,7727	2,7576	34,9015	...	* 67,5189
3 New rails laid	4,2741	2,1781	1,0730	61,7337	8018	* 70,0607

Miles.
Increased mileage of sidings—
South-West Line 1,1571
North-West Line 1,1867

Total... 1,3438
Less Decrease in Main Line on N.-W. Lane 729
1,2709

Miles .. 2,5418

* The difference between Removed and Laid is owing to increased sidings.

APPENDIX V.—Maintenance of Way-Sleepers.

DETAILS.	WOOD.											IRON BOWLS.		
	TRANSVERSE.													
	Teak.						Jungle.		Total.	Creosoted Pine.				
	16' x 12' x 6'	14' x 12' x 6'	12' x 12' x 6'	10' x 12' x 6'	10' x 10' x 5'	10' x 12' x 6'	10' x 10' x 5'	10' x 10' x 5'		10' x 10' x 5'				
1	Number of sleepers in way, including sidings, at the commencement of the half-year	...	...	2,413	146	5,890	1,584	7,558	2,934	17,463	38,018	149	3,172,001	
2	Average age of sleepers in way at the end of the half-year. Years...	...	...	15.1786	20.8600	19.8933	11.8026	11.7550	4.4428	7.2794	9.9969	6.5020	22.0433	
3	Number removed	...	...	8	...	464	4	49	236	651	* 1,412	...	* 4,450	
4	Number laid	...	...	11	...	33	2	6	320	743	* 1,120	...	* 13,420	
5	Percentage of removals on total of each class	...	...	.0033	...	.0788	.0025	.0065	.0804	.0373	.0371	...	.0014	
6	Number of sleepers in way, including sidings, at the end of the half-year	...	...	2,416	146	5,459	1,582	7,545	3,018	17,560	37,726	149	3,180,971	

* The difference between Removed and Laid is owing to increased sidings.

No. 883 R. 2

Government of Madras.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

To

THE *Director General of Ry.**Simla**16 May*
16 April 1893.

SIR,

With reference to letter from the Government of India letter no. 2112 G, dated 8th August 1891. I am directed ^{to} forward herewith 10 copies of the Analysis of working, Madras Railway, for the half-year ended ~~the~~ 31st December 1892.

DESPATCHED

25 MAY. 93

*Wm**21/4 2/5 R*

No.

Government of Madras.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

To

THE *Hon. the Secy. of State*

for India

April 1893.

~~Sir~~

My Lord,

We have the honor
to forward herewith a
copy of the analysis of
working, Madras Railway
for the half year ended
31st. December 1892.

J. R. Upcott

21. R
4

A

P. 883 R 2 16 May 1893.

No. 2112 G.

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.

GENERAL.

Simla, the 8th August 1891.

Submission of Railway Returns.

Read again—

Public Works Department Resolution No. 204 R. E., dated 23rd March 1888.

Read also—

Public Works Department Circular No. VII Railway, dated 23rd June 1888.

RESOLUTION.—With the Circular last mentioned a revised appendix was issued embodying the list of returns, reports, &c., of all Railways to be forwarded by Local Governments and Administrations and Consulting Engineers direct to the Director General of Railways, in supersession of that issued with Public Works Department Resolution No. 204 R. E. of 1888.

2. The Government of India has recently had under further consideration the question of the channel of submission of these returns, &c.; and is now pleased to rule that the returns, reports, &c., which have hitherto been furnished direct to the Director General of Railways shall in future be limited to those shown in the accompanying appendix.

3. The reports of half-yearly inspections of accidents and of inspections of lines before opening referred to in paragraph 2 of Resolution No. 204 R. E., dated 23rd March 1888, should accordingly be submitted in future direct to the Government of India in the Public Works Department.

ORDER.—Ordered, that this Resolution be forwarded, for information and

The Governments of Madras, Bombay, and Bengal.
The Chief Commissioners of Burma and Assam.
The Resident at Hyderabad.
The Agent to the Governor General for Rajputana.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Central Division, and Lucknow.

guidance, to the Local Governments, Administrations, and Officers noted in the margin.

Ordered also, that a copy be forwarded for information, to the Governments of the North-Western Provinces and Oudh and the Punjab, the Chief Commissioner of the Central Provinces, the Resident in Mysore, the Agents to the Governor General for Central India and Baluchistan and the Accountant General, Public Works Department.

F. B. HEBBERT,

Offg. Under-Secy. to the Govt. of India.

Document accompanying.

Appendix containing list of returns.

Appendix to Public Works Department Resolution No. 2112 G. of 1891.

List of Railway Returns, Reports, &c., to be forwarded by Local Governments, Administrations, and Consulting Engineers direct to the Director General of Railways.

Quarterly.

1. Returns of accidents.

Half-yearly.

2. Analyses of working.

Yearly.

3. Administration Reports, Parts I and II.

4. Traffic returns and accompaniments for Director General of Railways' Administration Report, Part I.

5. Numerical and casualty returns.

6. Strength and cost of police.

7. Reports on training of native drivers and shunters.

8. Statements of schools.

9. Returns of stores in stock on all railways.*

10. Reviews of the transactions of fine funds on railways owned and worked by the State.

The following returns will in future be submitted to the Government of India.

Weekly.

1. Minutes of meetings of all railways.*

Monthly.

2. Statements of fluctuations of goods traffic.

Quarterly.

3. Narrative progress reports, Forms A and B.

Half-yearly.

4. Revenue accounts.

5. Establishment rolls and working estimates for all railways.*

Yearly.

6. Feeder road maps.

7. Statements of sleepers.

* Not applicable to private Companies.