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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	3524.	Press	<i>Original</i>
B.P. No.		Mis.	
Dated	14-12-	1875	
		195	

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
14th December 1875.*

No. 222. Read the following letter from W. C. FURNIVALL, Esq., Under Secretary to the Government of India, Public Works Department, to Major-General G. W. WALKER, R.E., Secretary to the Government of Madras, Public Works Department, dated Fort William, 24th November 1875, No. 2,844R:—

I AM directed to forward for information printed copies of the details of trials made on the East Indian Railway with different samples of coal for locomotive purposes, and to request that, with the permission of His Excellency the Governor of Madras in Council, you will cause to be recorded and submitted to the Government of India in a similar form the results of any experiments made on the Railways in the Madras Presidency. The speed of the trains should be given in the column of remarks, together with the total time spent at stations in making the runs.

EAST INDIAN

Details of trials of different Samples of Coal by Engine No. 50

Description of Coal.	No. of Vehicles.	Miles run.	Gross weight of Train including Passengers, Engine and Tender in working order.	COAL.			Average pressure of steam.
				Quantity.	Pounds per mile.	Pounds per ton mile.	
Kurhurballee No. 11 Shaft, Serampore	16	161-25	203 5	3 19 0	27-43	-133	110
	17	161-25	207 15				
	17	161-25	215 5				
	16	161-25	200 10				
	16 5	322 5	206 18				
Do. No. 23 Shaft	17-5	161-25	213 10	4 6 0	29-86	-140	110
	17 5	161-25	213 1				
	17	161-25	217 7				
	19	161-25	211 8				
	17-7	322-5	213 15				
Do. Ordinary	17	161-25	213 14	4 8 2	30-73	-144	110
	17	161-25	213 16				
	16	161-25	200 10				
	16	161-25	203 17				
	16 5	322-5	207 19				
North Wales (Main Seam Coal)...	17	161-25	212 9	4 15 0	32-99	-148	110
	19	161-25	231 19				
	17	161-25	205 14				
	17	161-25	211 14				
	17-5	322 5	215 9				
Waratah N. S. Wales	18	161-25	210 0	4 11 0	31-64	-152	112
	16	161-25	198 10				
	16	161-25	204 4				
	17	161-25	209 6				
	16 7	322 5	207 14				
Raneegunge (Sanctoria) ...	17	161-25	211 15	4 12 2	32 13	-150	116
	20	161-25	218 0				
	16	161-25	205 0				
	18	161-25	216 15				
	17-7	322-5	212 17				
South Wales (Cardiff) ...	17	161-25	208 2	4 14 0	32-64	-160	110
	16	161-25	199 0				
	16-5	322-5	203 11				
	16	161-25	203 10				
	16-5	322-5	207 1				
Raneegunge Equitable Company	18	161-25	216 9	5 0 0	34-72	-165	110
	17-5	161-25	205 6				
	17-0	322-5	208 1				
	16	161-25	208 2				
	16	161-25	199 0				
Do. Ordinary...	16	161-25	203 10	5 7 0	37-15	-181	115
	17-5	161-25	208 5				
	16-25	322-5	204 14				
	16	161-25	208 2				
	16	161-25	199 0				

JUMALPORE,
16th September 1875.

RAILWAY.

working Mail Trains between Jumalpoore and Rampore Haut, 1875.

WATER.			ASH.		Data.	Remarks.
Consumed in gallons.	Consumed in pounds.	Evaporated per pound of Coal.	Quantity.	Percentage of Coal used.		
			Cwt. qr. lbs.			
7,731	77,310	8-73	10 2 0	13 29	{ 9th June 1875.	Strong breeze detention 27 mts.
7,774	77,740	8-43	10 0 2	12-17	{ 12th "	Fine weather " 5 "
					{ 14th "	Strong wind and rain " 30 "
7,752	77,520	8-58	10 1 1	12-73		Fine weather " 1 hour.
7,974	79,740	8-27	10 0 0	11-63	{ 14th June	Strong wind with heavy rain, detention 35 mts.
7,943	79,430	8-34	9 2 0	11-17	{ 17th "	Fine weather " 36 "
					{ 17th "	Light side wind with rain " 49 "
7,958	79,580	8-31	9 3 0	11-39	{ 19th "	Fine weather " 30 "
8,209	82,090	8-28	10 1 0	11-58	{ 19th June	Strong side wind with heavy rain, detention 30 mts.
8,059	80,590	8-46	9 3 14	11-61	{ 22nd "	Fine weather " 46 "
					{ 22nd "	Light side wind with rain " 38 "
8,134	81,340	8-37	10 0 7	11-69	{ 24th "	Do. do. Nil.
8,478	84,780	7-96	8 0 0	8-42	{ 8th August	Strong side wind detention 43 mts.
8,195	81,950	8-24	8 0 14	9-15	{ 11th "	Fine weather " 20 "
					{ 11th "	Fine calm weather " 10 "
8,336	83,360	8-10	8 0 7	8-78	{ 13th "	Do. do. " 45 "
7,412	74,120	7-26	11 0 23	12-29	{ 30th May	Fine weather detention 30 mts.
7,540	75,400	7-49	10 1 24	11-64	{ 1st June	Light breeze " 10 "
					{ 1st "	Strong side wind " 25 "
7,476	74,760	7-37	10 3 9	11-96	{ 3rd "	Fine weather " 20 "
7,772	77,720	7-50	11 0 25	12-13	{ 26th May	Fine weather detention 6 mts.
7,863	78,630	7-54	11 0 4	11-86	{ 28th "	Light head breeze " 25 "
					{ 28th "	Strong wind " 24 "
7,817	78,170	7-52	11 0 14	11-99	{ 30th "	Light wind " 10 "
7,911	79,110	7-51	9 0 17	9-68	{ 7th June	Blowing hard throughout the trip, detention 1 45
7,911	79,110	7-51	9 0 17	9-68	{ 9th "	Fine weather Nil.
7,538	75,380	7-15	12 1 2	13 05	{ 24th June	Fine weather detention 40 mts.
8,077	80,770	7-21	13 2 12	13 60	{ 27th "	" " " " " 36 "
					{ 27th "	Strong side wind with heavy rain " 46 "
7,806	78,060	7-18	12 3 21	13-32	{ 29th "	Light breeze with rain " 1 hour.
7,654	76,540	6-44	18 1 5	17-26	{ 3rd June	Strong side wind... .. detention 26 mts.
7,992	78,920	6-58	19 1 18	18-14	{ 5th "	Fine weather Nil.
					{ 5th "	Strong wind " 38 "
7,773	77,730	6-51	18 3 11	17-70	{ 7th "	Fine weather Nil.

**B.
EAST INDIAN RAILWAY.**

*Proceedings of the Madras Government, Public Works Department,
14th December 1875.*

Summary of trials of different Samples of Coal by Engine No. 50 working Mail Trains between Jumalpoore and Rampore Haut, 1875.

Description of Coal.	No. of Vehicles.	Miles run.	Gross weight of train including Passengers, Engine and Tender in working order.	COAL.			Aver. pressure of steam.	WATER.		ASH.		Date.	Remarks.	H. M.	
				Quantity.	Pounds per mile.	Pounds per ton mile.		Consumed in gallons.	Evaporated per pound of Coal.	Quantity.	Percentage of Coal used.				
Kurumballee No. 11 Shaft, Serampore ...	16.5	322 1/2	206 13	4 0 2	28.00	.135	1000	7,752	77,520	8.53	10 1 1	12.73	9th to 14th June ..	Fair weather, detention 1 1	1 1
Do. No. 23 Shaft ...	17.7	...	213 15	4 5 2	29.03	.139	.971	7,938	79,550	8.31	9 3 0	11.39	14th to 19th ..	"	1 15
Do. Ordinary ...	16.5	...	207 19	4 6 2	30.12	.145	.931	8,134	81,340	8.37	10 0 7	11.59	19th to 24th ..	"	0 57
North Wales (Main Seam Coal) ...	17.5	...	215 9	4 11 3	31.90	.148	.912	8,336	83,360	8.10	8 0 7	8.78	8th to 13th Aug.	"	0 59
Walsah N. S. Wales ...	16.7	...	207 14	4 10 2	31.42	.151	.891	7,476	74,760	7.37	10 3 9	11.96	30th May to 3rd June.	"	0 43
Raneegunge (Sanctoria). 17.7	...	...	212 17	4 13 3	32.21	.151	.834	7,817	78,170	7.52	11 0 14	11.99	26th to 30th May...	"	0 32
South Wales (Cardiff) ... 16.5	...	...	203 11	4 14 0	32.64	.160	.843	7,911	79,110	7.51	9 0 17	9.63	7th to 9th June ...	Strong wind,	1 45
Raneegunge Equitable Company ... 17.0	...	...	208 1	4 17 0	33.68	.161	.838	7,806	78,060	7.18	12 3 21	13.32	24th to 29th ..	Fair weather,	1 31
Do. Ordinary ... 16.55	...	...	204 14	5 6 2	30.99	.151	.745	7,773	77,730	6.51	13 3 11	17.70	3rd to 7th ..	"	0 33

JUMALPORE,
16th September 1875.

D. W. CAMPBELL,
Locomotive Superintendent.

*Proceedings of the Madras Government, Public Works Department,
14th December 1875.*

No. 223. ORDER THEREON, 14th December 1875, No. 3,524.

RAILWAY, No. 25.

COMMUNICATED to the Consulting Engineer for Railways who will, if possible, tabulate in the required form the results already submitted and include any further experiments which may have since been made.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the Consulting Engineer for Railways.

Ed. W. J. Lewis.
Spare Copies

EAST INDIAN RAILWAY.

Summary of trials of different samples of Coal by Engine No. 50 working Mail Trains between Jumalpure and Rampore Haut, 1875.

Description of Coal.	No. of Vehicles.	Miles run.	Gross weight of train including Passengers, Engine and Tender in working order.	COAL.			Average pressure of Steam.	WATER.			ASH.		Date.	REMARKS.
				Quantity.	Pounds per ton mile.	Pounds per ton mile.		Consumed in gallons.	Consumed in pounds.	Evaporated per pound of Coal.	Quantity.	Percentage of Coal used.		
Kurhurballee No. 11 shaft, Serampore ...	165	322½	Tons. cwt. qr.	4 0 2	28 00	135	1000	7,752	77,520	8.58	10 1 1	12 73	1875. 9th to 14th June ...	Fair weather, detention 1 1
• Ditto No. 23 Shaft	177	...	213 15	4 5 2	29.68	139	971	7,958	79,580	8.31	9 3 0	11.39	14th to 19th "	" " 1 15
Ditto Ordinary	165	...	207 19	4 6 2	30.12	145	931	8,134	81,340	8.37	10 0 7	11.59	19th to 24th "	" " 0 57
North Wales Main Seam Coal	175	...	215 9	4 11 3	31.90	148	912	8,336	83,360	8.10	8 0 7	8.78	8th to 13th Aug. ...	" " 0 59
Waratah N. S. Wales	167	...	207 14	4 10 2	31.42	151	894	7,476	74,760	7.37	10 3 9	11.96	30th May to 3rd June	" " 0 42
Raneegunga (Sanctoria)	177	...	212 17	4 12 3	32.21	151	894	7,817	78,170	7.52	11 0 14	11.99	26th to 30th May ...	" " 0 32
South Wales (Cardiff)	165	...	203 11	4 14 0	32.64	160	813	7,911	79,110	7.51	9 0 17	9.68	7th to 9th June	Strong wind, 1 45
Raneegunga Equitable Co.	170	...	208 1 4. 17 0	33.68	161	161	838	7,806	78,060	7.18	12 3 21	13.32	24th to 29th "	Fair weather, 1 31
Ditto Ordinary	1625	...	204 14	5 6 2	36.98	181	745	7,773	77,730	6.51	18 3 11	17.70	3rd to 7th "	" " 0 32

JUMALPURE,
16th September 1875.
No. 264, P. W. D. Press—2, 12, 75—101.

D. W. CAMPBELL,
Locomotive Superintendent.

EAST INDIAN RAILWAY.

Details of trials of different samples of Coal by Engine No. 50 working Mail Trains between Jumalpure and Rampore Haut, 1875.

Description of Coal.	No. of Vehicles.	Miles run.	Gross weight of Train including Passengers, Engine and Tender in working order.	COAL.			Average pressure of steam.	WATER.			ASH.		Date.	REMARKS.
				Quantity.	Pounds per mile.	Pounds per ton mile.		Consumed in gallons.	Consumed in pounds.	Evaporated per pound of Coal.	Quantity.	Percentage of coal used.		
Kurburbahee No. 11 Shaft, Serampore ...	16	161-25	203 5	3 19 0	27-43	-133	110	7,731	77,310	8-73	10 2 0	13-29	9th June 1875...	Strong breeze ... detention 27 mts.
	17	161-25	207 15	4 2 1	28-56	-138	110	7,774	77,740	8-43	10 0 2	12-17	12th "	Fine weather ... " 5 "
	17	161-25	215 5				110						12th "	Strong wind and rain ... " 30 "
	16	161-25	200 10				110						14th "	Fine weather ... " 1 hour.
	165	322 5	206 13	4 0 2	28-00	-135	110	7,752	77,520	8-58	10 1 1	12-73		
Ditto No. 23 Shaft ...	17-5	161-25	213 10	4 6 0	29-86	-140	110	7,974	79,740	8-27	10 0 0	11-62	14th June	Strong wind with heavy rain, detention 35 mts.
	17-5	161-25	213 1				110						17th "	Fine weather ... " 36 "
	17	161-25	217 7	4 5 0	29-51	-137	110	7,943	79,430	8-34	9 2 0	11-17	17th "	Light side wind with rain ... " 49 "
	19	161-25	211 3				110						19th "	Fine weather ... " 30 "
	17-7	322-5	213 15	4 5 2	29-63	-139	110	7,958	79,580	8-31	9 3 0	11-39		
Ditto Ordinary ...	17	161-25	213 14	4 8 2	30-73	-144	110	8,209	82,090	8-28	10 1 0	11-58	19th June	Strong side wind with heavy rain, detention 30 mts.
	17	161-25	213 16				110						22nd "	Fine weather ... " 46 "
	16	161-25	200 10	4 5 0	29-51	-146	110	8,059	80,590	8-46	9 3 14	11-61	22nd "	Light side wind with rain ... " 38 "
	16	161-25	203 17				110						24th "	Ditto ditto ... " Nil.
	16-5	322-5	207 19	4 6 2	30-12	-145	110	8,134	81,340	8-37	10 0 7	11-59		
North Wales (Main Seam Coal)	17	161-25	212 9	4 15 0	32-99	-148	110	8,478	84,780	7-96	8 0 0	8-42	8th August	Strong side wind ... detention 43 mts.
	19	161-25	231 19				110						11th "	Fine weather ... " 20 "
	17	161-25	205 14	4 8 3	30-82	-148	110	8,195	81,950	8-24	8 0 14	9-15	11th "	Fine calm weather ... " 10 "
	17	161-25	211 14				110						13th "	Ditto ditto ... " 45 "
	17-5	322 5	215 9	4 11 3	31-90	-148	110	8,336	83,360	8-10	8 0 7	8-78		
Waratah N. S. Wales	18	161-25	219 0	4 11 0	31-64	-152	112	7,412	74,120	7-26	11 0 23	12-29	30th May	Fine weather ... detention 30 mts.
	16	161-25	198 10				112						1st June	Light breeze ... " 10 "
	16	161-25	204 4	4 9 3	31-21	-151	110	7,540	75,400	7-49	10 1 24	11-64	1st "	Strong side wind ... " 25 "
	17	161-25	209 6				110						3rd "	Fine weather ... " 20 "
	16-7	322-5	207 14	4 10 2	31-42	-151	111	7,476	74,760	7-37	10 3 9	11-96		
Raneegunge (Sanctoria)	17	161-25	211 15	4 12 2	32-12	-150	116	7,772	77,720	7-50	11 0 25	12-13	26th May	Fine weather ... detention 6 mts.
	20	161-25	218 0				116						28th "	Light head breeze ... " 25 "
	16	161-25	205 0	4 13 0	32-29	-153	115	7,863	78,630	7-54	11 0 4	11-86	28th "	Strong wind ... " 24 "
	18	161-25	216 15				115						30th "	Light wind ... " 10 "
	17-7	322-5	212 17	4 12 3	32-21	-151	115	7,817	78,170	7-52	11 0 14	11-99		
South Wales (Cardiff)	17	161-25	208 2	4 14 0	32-64	-160	110	7,911	79,110	7-51	9 0 17	9-68	7th June	Blowing hard throughout the trip, detention 1 45
	16	161-25	199 0				110						9th "	Fine weather ... " Nil.
	16-5	322 5	203 11	4 14 0	32-64	-160	110	7,911	79,110	7-51	9 0 17	9-68		
Raneegunge Equitable Company ...	16	161-25	203 10	4 14 0	32-64	-159	110	7,536	75,360	7-15	12 1 2	13-05	24th June	Fine weather ... detention 40 mts.
	16-5	161-25	207 1				110						27th "	" " " 36 "
	18	161-25	216 9	5 0 0	34-72	-165	110	8,077	80,770	7-21	13 2 12	13-60	27th "	Strong side wind with heavy rain ... " 46 "
	17-5	161-25	205 6				110						29th "	Light breeze with rain ... " 1 hour.
	17-0	322 5	203 1	4 17 0	33-68	-161	110	7,806	78,060	7-18	12 3 21	13-32		
Ditto Ordinary ...	16	161-25	208 2	5 6 0	36-81	-181	115	7,654	76,540	6-44	18 1 5	17-26	3rd June	Strong side wind ... detention 26 mts.
	16	161-25	199 0				115						5th "	Fine weather ... " Nil.
	16	161-25	203 10	5 7 0	37-15	-181	115	7,892	78,920	6-58	19 1 18	18-14	5th "	Strong wind ... " 38 "
	17-5	161-25	208 5				115						7th "	Fine whether ... " Nil.
	16-25	322-5	204 14	5 6 2	36-98	-181	115	7,773	77,730	6-51	19 3 11	17-70		

JUMALPURE,

16th September 1875.

No. 163—P. W. D. Press—2, 12, 75 101.

D. W. CAMPBELL,

Locomotive Superintendent.

No. 2844-R.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

Railway.

To
The Secretary to the Govt of Madras
(Public Works Department).

For William, 24th November 1875.

Sir,

I am directed to forward for information printed copies of the details of trials made on the East Indian Railway with different samples of coal for Locomotive purposes, and to request that, with the permission of His Excellency the Governor of Madras in Council, you will cause to be recorded and submitted to the Government of India in a similar form the results of any experiments made on the Railways in the Madras Presidency. The speed of the trains should be given in the column of remarks together with the total time.

No 315 to 317 of 16/12/4. P. W. 1895 Sept.
No: 7907

From

The Govt. of India

Dated 24th Nov. 1895.
Recd. 11th Dec. 1895.

No: 2844 R.

C. 2.

Requesting to be furnished
with details ^{and} of trials
made on the Madras
Rly. with different
samples of Coal for
locomotive purposes.

W. D. S. S. S.

No 3524.

Communicated to the Department of Engineering for Railways
who will if possible take into the required form the results
already submitted and include any further experiments
which may have since been made.

14 Dec 95.
Enclosure No. 1

Recd. 7-1-96

W. D. S. S. S.

PUBLIC WORKS.

T. Craig. Esq. for Recd.

Dated

Issued

Recd.

For

G. O. 118, 1575, No. 3524

Nos. 222-223

Coal in Wisconsin per holes.

Letter from the Govt of India
requesting - be furnished with
details of any trials made on
the Madras Railways with
different samples of —
Communicated to the Corp —
Run for 13 yrs —