

RESULTS OF TESTS—continued.

No. of Test.	Speed of Car.		Elapsed Time: Seconds.	Length of Stop: Feet.	Mean Retardation.		Grade, 1 in	Acceleration due to Gravity: Feet per Second ² .	Total Retardation of Car: Feet per Second ² .	Retardation due to Car resistance: Feet per Second ² .	Total Retardation due to Brakes: Feet per Second ² .	Mean Retarding force of Brakes: per Cent. Car weight.	Sand.	Remarks.
	Miles per Hour.	Feet per Second.			By Time: Feet per Second ² .	By Distance: Feet per Second ² .								
TABLE 7. Brake-test at Auckland. Date: 1st May, 1910. Location: Wellesley Street East. Type of brake used: Pneumatic wheel brake. Type of car: Double-bogie single-deck, No. 75. Weight of car (total): 48,888 lb. Description of test: Emergency; air brake applied on signal.														
71	12.1	17.7	5.8	80.0	3.050	1.957	14.19	2.27	4.227	0.36	3.867	12.18	Yes	Good rail.
72	12.7	18.6	5.7	80.3	3.263	2.154	14.19	2.27	4.424	0.36	4.064	12.80	No	"
73	10.1	14.8	4.7	59.6	3.150	1.830	14.19	2.27	4.100	0.36	3.740	11.78	"	"
74	15.1	22.1	7.0	115.5	3.157	2.114	14.19	2.27	4.384	0.36	4.024	12.60	"	"
75	15.8	23.1	6.9	111.2	3.348	2.390	14.19	2.27	4.660	0.36	4.300	13.50	"	"
76	19.7	28.8	10.4	200.5	2.769	2.018	14.19	2.27	4.288	0.36	3.928	12.55	"	Slight skid (1 ft.).
77	19.9	29.1	14.1	279.4	2.064	1.515	14.19	2.27	3.785	0.36	3.425	10.80	Yes	"
Mean	..	..	..	..	..	..	..	..	4.270	..	3.910	12.20	..	..

TABLE 8.

Brake-test at Auckland. Dates: 16, 26th April, 1910; 49-53, 28th April, 1910. Location: No. 16, Parnell Road; Nos. 49-51, Newmarket-Epsom; Nos. 52, 53, Greenwood's Corner. Type of brake used: Pneumatic wheel brake. Type of car: Double-bogie single-deck, No. 75. Weight of car (total): 48,888 lb. Description of test: Emergency; air-brake applied on signal.														
16	18.4	27.0	6.5	116.0	4.15	3.15	Level	..	3.15	0.36	2.79	8.67	Yes	Rail slightly greasy.
49	14.1	20.8	4.5	61.2	4.63	3.54	269.38 up	.12	3.42	0.36	3.06	9.50	"	Fair rail.
50	14.2	20.9	4.3	45.2	4.87	4.84	155.91 up	.21	4.63	0.36	4.27	13.25	"	"
51	19.1	28.0	5.4	79.0	5.20	4.97	68.39 up	.47	4.50	0.36	4.14	12.85	"	"
52	19.1	28.0	8.1	122.0	3.46	3.22	39.5 down	.81	4.03	0.36	3.67	11.40	"	"
53	13.1	19.2	6.1	72.7	3.15	2.55	39.5 down	.81	3.36	0.36	3.00	9.30	"	"
Mean	..	..	..	..	..	..	..	..	3.85	..	3.49	10.83	..	..

TABLE 9.

Brake-test at Auckland. Date: 1st May, 1910. Location: Wellesley Street East. Type of brake used: Hand-wheel and mechanical track brakes. Type of car: Double-bogie single-deck, No. 75. Weight of car (total): 48,888 lb. Description of test: Coasting on track brake; hand-wheel brake applied on signal.														
59	14.2	20.8	26.7	369.2	0.78	0.58	14.19	2.27	2.85	0.36	2.49	7.85	No	Rail slightly greasy.
60	12.5	18.3	15.7	228.8	1.16	0.73	14.19	2.27	3.00	0.36	2.64	8.30	Yes	"
61	14.9	21.8	15.7	270.7	1.39	0.88	14.19	2.27	3.15	0.36	2.79	8.80	"	"
62	11.6	17.0	12.9	177.4	1.32	0.81	14.19	2.27	3.08	0.36	2.72	8.55	No	Rail sandy.
63	17.0	24.8	16.9	331.2	1.47	0.93	14.19	2.27	3.20	0.36	2.84	8.93	"	"
Mean	..	..	..	..	..	..	..	..	3.06	..	2.70	8.40	..	..