

The Stephenson Memorial Miniature Locomotive Association

64th Trials Hosted By:- York City & District MES, Dringhouses, York 15th September 2019

ANALYSIS

No	COMPETITOR	SOCIETY	LOCOMOTIVE	WHEEL ARR'T	GAUGE in	LOAD LBS	DISTANCE YDS	COAL OZS	Average	Estimated Average			Grate Area ins ²	Firing rate lbs/in2/hr	Coal lbs/ton mile	Equivalent
									Speed MPH	Drawbar LBS	DBHP	Efficiency				Scale Load Tons
1	Malcolm Lummas	York	Duchess of Swindon	4-8-2	3.5	588	3998	24.27	6.81	6.29	0.11	0.45	25	0.18	2.54	1075
2	Joe Gibbons	Tyneside	GNR Atlantic No 1418	4-4-2	3.5	750	4570	21.83	7.79	8.18	0.17	0.75	14	0.29	1.57	1371
3	Steven Duncan	Sunderland	BR Class 7 No 70000 Britannia	4-6-2	3.5	773	4415	11.39	7.53	8.39	0.17	1.42	20	0.11	0.82	1413
4	Eddie Gibbons	Tyneside	LNER Class A4 No 4498 Sir Nigel Gresley	4-6-2	3.5	820	1284	20.92	2.19	8.26	0.05	0.22	20	0.20	4.90	1499
5	W McHugh	South Durham	Alice Class Hunslet Alice	2-4-2T	5	994	2692	22.19	4.59	10.25	0.13	0.54	18	0.23	2.04	920
6	Dave Fuller	Furness	Simplex Sally	0-6-0T	5	1031	1872	18.10	3.19	10.47	0.09	0.47	17.5	0.19	2.31	954
7	Charlie Bauckham	York	GWR No 1518 Speedy	0-6-0PT	5	930	2549	16.83	4.34	9.56	0.11	0.63	13.65	0.23	1.75	861
8	Tom Jones	West Cumbria	BR Class 2 No 78048	2-6-0	5	1115	2718	18.91	4.63	11.51	0.14	0.72	15	0.24	1.54	1032
9	David Davies	West Cumbria	Sweet Pea No 59 Lady Stephanie	0-4-2ST	5	1133	3240	28.36	5.52	11.85	0.17	0.59	16	0.33	1.90	1048
10	Nick Wright	Sunderland	Caledonian Dock Tank No 534	0-6-0T	7.25	2355	2302	25.43	3.92	24.09	0.25	0.95	16	0.30	1.16	538

The above figures are offered for interest and have no bearing on the result of the competition

Drawbar pull estimated using train resistance = gross train weight (lbs) x (0.01+0.000015 x speed(mph)²)

Efficiency calculation assumes coal CV = 14000 BTU/lb