

LEADING PARTICULARS of the MOST APPROVED TYPE OF LOCOMOTIVES USED

	GOODS.				
	London and North-Western Railway.	Midland Railway.	Great Northern Railway.	North-Eastern Railway, Heavy.	North-Eastern Railway, Heavy.
I. ENGINE.					
Cylinders outside or inside . .	Simple. Inside	Simple. Inside	Simple. Inside	Simple. Inside	Simple. Inside
Do. dimensions { Diameter . .	17 ins.	18 ins.	19 ins.	18 ins.	18 ins.
Stroke . .	24 "	26 "	28 "	24 "	24 "
Weight of engine in working order . .	T. C. 29 11	T. C. Q. 36 12 1	T. C. 40 0	T. C. 51 19	T. C. 37 0
Maximum weight on any axle .	10 6	14 12 0	14 17	16 13	14 5
Number of axles under engine .	3	3	3	4	3
" driven axles . .	3	3	3	3	3
Diameter of driving-wheels . .	4 ft. 2 ins.	4 ft. 10½ ins.	5 ft. 1½ in.	5 feet	5 feet
Which end, if either, is carried on bogie-truck.	{ Radial axle-box trailing }	..
Diameter of bogie-wheels . .	None	None	None	{ 3 ft. 9 ins. trailing }	None
Description of valve-gear . .	Link	Link	Link	Joy's	Joy's
Working-pressure, lbs. per sq. in.	140 lbs.	140 lbs.	140 lbs.	140 lbs.	140 lbs.
Area of firegrate	17·1	17·5	18·0	17·23	17·23
Heating surface { Firebox . .	94·6	110·0	112·0	110·0	110·0
Tubes . .	980·0	1,151·0	1,240·0	1,026·12	1,026·12
Total . .	1,074·6	1,261·0	1,352·0	1,136·12	1,136·12
Boiler shell, steel or iron . .	Steel	{ B. York-shire iron }	Iron	Steel	Steel
Inner firebox, steel or copper .	Copper	Copper	Copper	Copper	Copper
Tubes, copper, brass, or compound metal	{ 67 copper }	Brass	Copper	Brass	Brass
Tractive power per lb. per sq. in. pressure	136	144	164·35	129·6	129·6
II. TENDER.					
Number of Axles under . .	3	3	3	{ Tank engine }	3
Weight in working order . .	T. C. 25 0	T. C. Q. 29 12 1	T. C. 28 10	..	T. C. 32 0
Weight of fuel carried . .	4 17	3 0 0	4 0	2 tons	4 0
Capacity of water-tanks . .	1,800 galls.	2,200 galls.	2,800 galls.	1,241 galls.	2,651 galls.
III. LOAD TAKEN.					
Limit of load allowed	35 wagons	No limit	400 tons	400 tons	400 tons
Steepest gradient traversed . .	1 in 77	1 in 100	1 in 200	1 in 60	1 in 107
Length of said gradient . .	3½ miles	15 miles	12 miles	10 miles	4 miles
Gross load, exclusive of engine and tender, capable of being taken up steepest gradient	{ 360 up to 1 in 100, speed 15 miles per hour }	..	250 tons	360 tons