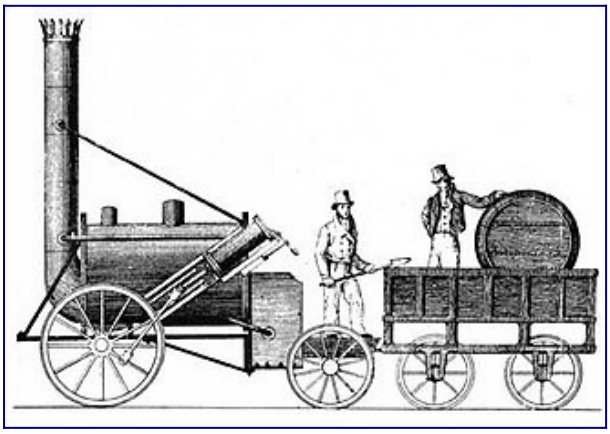
From Wikipedia, the free encyclopedia

Rocket



A contemporary drawing of *Rocket*

Type and origin	
Power type	Steam
Builder	Robert Stephenson and Company
Build date	1829

Specifications	
Configuration:	
• **Whyte**	0-2-2
• **UIC**	A1 n2
Gauge	4 ft 8+1⁄2 in (1,435 mm) standard gauge
Driver dia.	4 ft 8+1⁄2 in (1.435 m)
Trailing dia.	2 ft 6 in (0.76 m)
Wheelbase	7 ft 1 in (2.16 m)
Axle load	2 long tons 12 cwt 1 qr (5,850 lb or 2.65 t)[1]
Loco weight	4 long tons 5 cwt (9,500 lb or 4.3 t)
Fuel type	Coke
Firebox:	
• **Grate area**	6 sq ft (1 m^2)
Boiler	• 3 ft 4 in (1 m) diameter x • 6 ft (2 m) length[2] x 0.25 in (6 mm) thick[3]
Boiler pressure	50 lbf/in^2 (340 kPa)
Heating surface:	
• **Firebox**	1.6 m^2 (17 sq ft)[2] x 2 ft (0.61 m) width x 3 ft (0.91 m) height[4]
• **Tubes**	12.8 m^2 (138 sq ft)[2]
• **Tubes and flues**	25 3 in (76 mm) copper tubes

• **Total surface**	15.2 m^2 (164 sq ft)[2]
Cylinders	Two, outside. Angled at 38°[3]
Cylinder size	8 in × 16.5 in (203 mm × 419 mm)[5]
Valve gear	slip eccentric with manual override
Valve type	flat slide valve with exhaust cavity

Performance figures	
Maximum speed	30 mph (48 km/h)[6]
Tractive effort	825 lbf

Career	
Operators	• Liverpool and Manchester Railway • Lord Carlisle's Railway
Current owner	Science Museum
Disposition	On static display

Stephenson's *Rocket* is an early steam locomotive of 0-2-2 wheel arrangement. It was built for and won the Rainhill Trials of the Liverpool and Manchester Railway (L&MR), held in October 1829 to show that improved locomotives would be more efficient than stationary steam engines.[7]

Rocket was designed and built by Robert Stephenson in 1829, and built at the Forth Street Works of his company in Newcastle upon Tyne.

Though *Rocket* was not the first steam locomotive, it was the first to bring together several innovations that produced the most advanced locomotive of its day. It is the most famous example of an evolving design of locomotives by Stephenson, and became the template for most steam engines in the following 150 years.

The locomotive was displayed in the Science Museum in London until 2018, after which it was briefly exhibited at sites around the UK, ultimately at National Railway Museum in York. Since 2023, it has been based at the Locomotion Museum in Shildon.[8]