

VIRGINIA MUSEUM OF TRANSPORTATION

CLASS J STEAM LOCOMOTIVE INFORMATION

Manufacturer: [Norfolk & Western](#)

Employees at the Norfolk and Western Railway's East End Shops in Roanoke, Virginia, custom designed and built the J class steam locomotives. This is something that was quite uncommon on American railways.

Production era: 1941-1950

During the production era, 14 passenger engines were produced. They were marvels of engineering, and could pull up to 15 cars at a speed of 110 mph.

Class Specifications:

Length (engine + tender): 109 ft 2 in

Wheel configuration: 4-8-4

Height: 16 ft

Tractive effort: 80,000 lbs

Width: 11 ft. 2 in.

Cylinders, bore & stroke: 27 x 32 in.

Weight: 494,000 lbs

Driver wheel size: 70 in

Tender coal capacity: 35 tons

Boiler pressure: 300 psi

Tender water capacity: 22,000 gal

Grate area: 107.7 sq ft

Tender weight-loaded: 378,000 lbs

Time in Service:

The J class was used daily to pull passenger trains like the "Powhatan Arrow," the "Pocohontas," and the "Cavalier" between Cincinnati, Ohio and Norfolk, Virginia.

Between Monroe, North Carolina and Bristol, Tennessee, the J's also pulled the "Tenesseean," the "Pelican" and the "Birmingham Special."



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The J class averaged 15,000 miles per month and some of the locomotives traveled nearly 3 million miles before retirement.

After passenger service was dieselized in 1958, some were still used in freight service.

The Class J 611:

As the only Class J still in existence, the [611](#) is a national treasure that brings rail fans from around the globe to the Virginia Museum of Transportation every year.

- Built for Norfolk & Western at a cost of \$251,544; roughly \$2.4 million in 2014.
- Entered service on May 29, 1950.
- Was the last J to operate and made its final run on an N&W fan trip October 24, 1959.
- Returned to excursion service in 1982 and was retired once again in 1994.
- Departing the VMT on May 24, for Spencer, North Carolina, where it will be restored and returned to service as part of the 21st century steam program set to launch in spring of 2015.

