



Union Pacific Challenger Steam Locomotive

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1 Background

The Union Pacific Challengers were simple articulated 4-6-6-4 steam locomotives built by American Locomotive Company for the Union Pacific Railroad. Built between 1936 and 1943, the Challengers were nearly 122 feet long and weighed more than one million pounds. They operated over most of the Union Pacific system, primarily in freight service, but a few were assigned to passenger trains operating through mountain territory to California and Oregon. The locomotives were built specifically for Union Pacific and much of the experience gained later went into the design of the "Big Boy".

The name "Challenger" was given to steam locomotives with a 4-6-6-4 wheel arrangement. This means that they have four wheels in the leading pilot truck, which helps guide the locomotive into curves; two sets of six driving wheels, and finally, four trailing wheels, which support the rear of the engine and its massive firebox. Each set of driving wheels has its own steam cylinder. In essence, the result is two engines under one boiler.

The Union Pacific Railroad would buy a total of 105 "Challengers" and eight other railroads would use the other 147 of the total 252 that were built. The Baldwin Locomotive Works built 27 of the 4-6-6-4s. The American Locomotive Company built the rest.

Union Pacific Challenger Specifications:

Total built	252
Max speed	70 mph (110 km/h)
Length	121ft 10 7/8in (37.157 m)
Weight	1,073,900 lb (487,100 kg)
Tractive effort	97,375 lbf (433.03 kN)
Fuel capacity	32 short tons (29 t), 6,450 US gal

2 Rolling Stock

2.1 Union Pacific Challenger



3 Scenarios

3.1 Challenger Intro Run

Learn how to drive the Union Pacific Challenger in this introductory scenario.

- **Type** Standard Only
- **Duration** 20 Minutes

3.2 Challenger on Sherman Hill Cheyenne to Laramie

Take the Challenger passenger train from Cheyenne to Laramie. Up one side of Sherman Hill and down the other side. This is an end to end run.

- **Type** Standard
- **Duration** 85 Minutes

3.3 Challenger working at Wycon

Gather up empty tankers and hoppers at Wycon.

- **Type** Standard Only
- **Duration** 30 Minutes

3.4 Challenging Cheyenne to Laramie

Take the Challenger passenger train from Cheyenne to Laramie. Up one side of Sherman Hill and down the other side. This is an end to end run.

- **Type** Career
- **Duration** 85 Minutes

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