



# Return of Steam Locomotive 557

## PROJECT FACTS

Steam Engine No. 557 returned to Alaska January 3, 2012, nearly 50 years after it left service on the Alaska Railroad. The 557 was the last steam-driven locomotive in active use and regular service on the Alaska Railroad as late as 1962. The locomotive has come back to Alaska, given plans to restore and return it to service along the Alaska Railroad.

### History: A War Horse

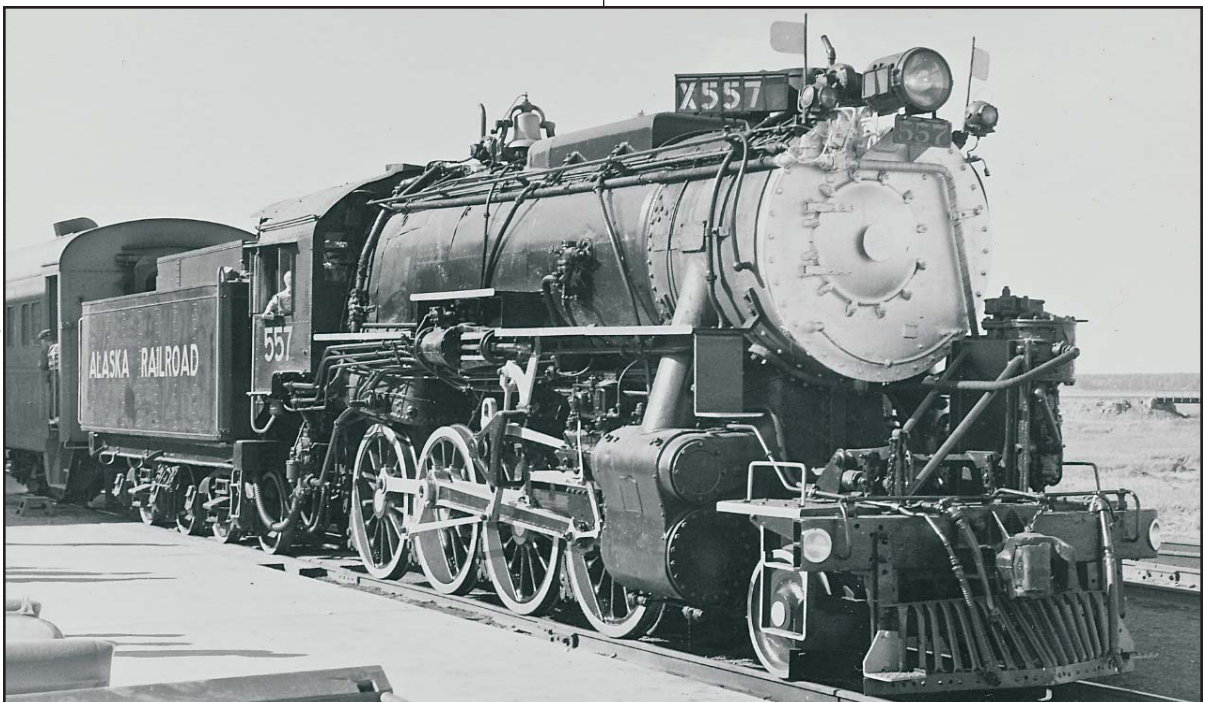
Engine No. 557 is one of 2,120 S-160 class Consolidation 2-8-0 locomotives built for the U.S. Army Transportation Corp (USATC) between 1942 and 1945 for use in Europe and Africa during World War II. Designed by U.S. Army Corps of Engineers Major J.W. Marsh, the locomotives were manufactured by three American builders — Baldwin Locomotive Works, American Locomotive Company and Lima Locomotive Works.

Known as GI Consolidations or Gypsy Rose Lee locomotives (stripped down for action), 12

were sent to Alaska, including U.S. No. 3523, which became Alaska Railroad No. 557. Upon arrival in December 1944, the standard USATC design was modified for Alaska service, including a) larger compound air compressors mounted on the front pilot; b) steam coils installed to heat the cabs; and c) snow plows fashioned for seasonal use.

Engine 557 is a tender locomotive, meaning it pulls a special rail vehicle called a tender, which carries the locomotive's fuel (wood, coal or oil) and water. The 557's original tender carried coal. Engine 557 was converted to oil, when the federally-owned Alaska Railroad retired its other coal-burning steam engines in 1954.

The 557 was the last steam locomotive in regular service, kept primarily to help during high-water conditions in Nenana, where the Tanana and Nenana Rivers regularly flooded the entire town and railyard. Diesel traction motors did not perform well in water, whereas the steamer could easily ford two feet of water over the rails. The 557 continued in occasional service for special events



Engine 557 at work September 1957. (photo from the Curtis Fortenberry Collection)

such as the annual fair trains and excursions.

Washington scrap dealer and museum owner Monte Holm purchased No. 557 in 1964. On June 14, 1965, the locomotive left Alaska from Whittier, where it was loaded onto the *Train Ship Alaska* bound for Everett, WA.

Instead of scrapping the 557, Holm preserved it for school groups to witness steam engine history in action. During the 1970s and through most of the 1990s, Engine 557 was kept in running condition and parked at Holm's House of Poverty Museum in Moses Lake, Washington.



*Pictured in 2001, Engine 557 retired at Poverty Museum. (Photo courtesy of John Combs)*

## Coming Home: A New Era

In 2011, Jim and Vic Jansen, owners of several Alaska-based transportation companies, purchased the locomotive from the Holm estate to ensure its return to Alaska. The Jansens graciously donated the locomotive to the Alaska Railroad with the proviso that it be relocated to Anchorage, rehabilitated and eventually put back into service.

The Alaska Railroad arranged for Engine 557 to be moved back to Alaska via rail/barge service between Seattle and Whittier. The engine arrived in Whittier January 3, 2012.

Valued at between \$175,000 to \$250,000, the locomotive is in excellent, near-running condition, and represents an opportunity to showcase a signpost of the past. The Alaska Railroad is interested in using Engine 557 to pull a few refurbished railcars between Anchorage and Portage during the summer visitor

season, perhaps as an excursion or as a dinner train operation.

But first, the locomotive must be restored. The Alaska Railroad is coordinating with several non-profit foundations and numerous volunteers to begin raising funds for the 557's refurbishment. The goal is to re-establish the 557's full classic appearance as well as bring it into compliance with today's passenger rail regulatory requirements. A preliminary cost estimate for restoration is about \$500,000.

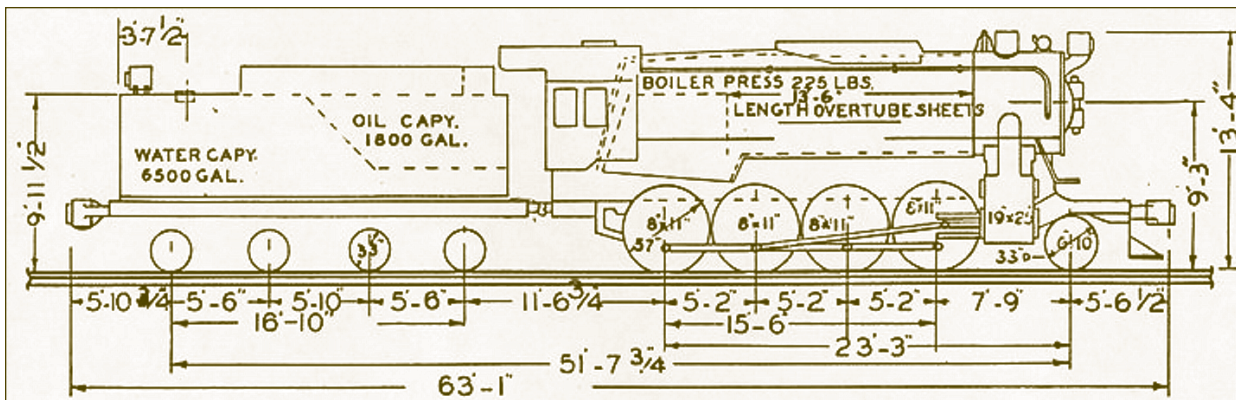


*Alaska Railroad locomotive mechanics take a look under the hood shortly after the No. 557 is transported to the Anchorage Yard, where it once again its wheels were set onto Alaska Railroad tracks mid-January 2012.*



*Modern SD70MAC locomotives haul the 557 to Anchorage shortly after arrival by barge in Whittier. (Photo by David Blazewski)*

## Locomotive 557 and Tender: Engineering Drawing and Specifications



- Manufacturer . . . . . Baldwin Locomotive Works
- Year Built . . . . . 1943
- Serial Number . . . . . SBR# 70480
- Classification . . . . . Consolidation
- Wheel Arrangement . . . . . 2-8-0 (2 leading wheels, 8 driving wheels, 0 trailing wheels)
- Weight on Drivers W.O. . . . . 141,000 pounds
- Weight on Front Truck W.O. . . . . 21,500 pounds
- Weight of Engine W.O. . . . . 162,500 pounds
- Weight of Loaded Tender . . . . . 126,500 pounds
- Weight of Engine & Loaded Tender . . 289,000 pounds
- Cylinders . . . . . 19-by-26 inches
- Diameter of Drivers (driving wheels) . . 57 inches
- Tractive Power (85% boiler pressure) . . 31,500 pounds
- Factor of Adhesion . . . . . 4.4
- Brick Arch . . . . . American Security
- Boiler Pressure . . . . . 225 pounds
- Maximum Width overall . . . . . 8 feet 11-1/2 inches
- Fuel (after conversion) . . . . . Diesel Oil (originally Coal)
- Length of Firebox Inside . . . . . 84-1/8 inches
- Width of Firebox Inside . . . . . 70-1/4 inches
- Grate Area . . . . . 41.04 square feet
- Size of Boiler Tubes . . . . . 2 inches by 13 feet 6 inches
- Number of Tubes . . . . . 150
- Size of Superheater Flues . . . . . 5-3/8 inches by 13 feet 6 inches
- Number of Superheater Flues . . . . . 30
- Total Heating Surface . . . . . 1773 square feet
- Superheater . . . . . 480 square foot Elesco Type A
- Valve Gear . . . . . Walschaert
- Power Reverse Gear . . . . . Baldwin
- Air Pump . . . . . Westinghouse 8-1/2 Cross Compound
- Brake Schedule . . . . . 6-ET
- Tender Capacity . . . . . 1800 gallons of oil
- Height Center of Gravity Engine . . . . 67 inches
- Height Center of Gravity Tender . . . . 80-1/2 inches
- 557 Oil Burner



No. 557 with a tender car. (photo by John Henderson)