

Engine 557 Restoration Company
Annual Report
August 7, 2013

Administration, Project Management, Planning

An organizational meeting of the Engine 557 Restoration Company (E557) was held on August 16, 2012. A permanent board of directors and corporate officers were selected. The Board adopted bylaws, approved transfer of the locomotive from the Alaska Railroad (ARR) Corporation, approved an agreement for use of the restoration facility, and selected a carrier for liability insurance. We have prepared a working budget and tracking system to document projected costs, actual expenses, donated goods and services, and volunteer hours and have established a process for purchasing and paying vendors. A bank account has been opened. A national legal firm is providing pro-bono assistance

applying for an IRS 501(c)(3) determination and our first tax return has been prepared and is ready to mail. Since project inception, project management has been a full-time job of one volunteer with assistance provided by other volunteers.

Fund Raising and Distribution.

Monetary and in-kind donations are processed through the Alaska Community Foundation (ACF) which distributes funds to E557 when needed. E557 solicits donations for payment directly to ACF. In all solicitation and outreach, E557 recognizes the support of the Rasmuson Foundation and ACF.

E557 has increased the emphasis on solicitation of larger monetary donations and in May and June, acquired donations totaling \$60,000 from six individuals. E557 is currently in communication with two potential donors with a goal of \$50,000 donations from each. E557 has also selected an individual to work on fund raising and grant proposals.

E557 has been highly successful in obtaining in-kind donations of materials and services. Exclusive of the locomotive, in-kind donations valued at approximately \$145,000 have been received and there are commitments for another \$175,000 through the project duration. E557 expects to continue to identify and receive additional, substantial in-kind donations to support the project.

Outreach and Public Communications

Invited visitors have included the mayors of Wasilla and Palmer; President and CEO and several officers of the ARR Corporation; State boiler inspector, his supervisor, and a representative of the Hartford Steam Boiler Inspection and Insurance Company (all three are experts in steam boilers and were favorably impressed); Antique Power Club; two British Rail tour groups, and a “meet and greet” for the public. Newspaper articles have appeared during the reporting period in the Anchorage Daily News, Mat-Su Valley Frontiersman (2), Alaska Dispatch (2), and Columbia Basin (Washington) Herald. Broadcast media includes television stories on KTUU (2) and KTVA and radio interviews on KVRF and KENI (2). Numerous presentations have been made to groups including the Palmer Historical Society, Tracks to Palmer group, Anchorage Centennial Commission Round Table, American Legion 40&8, and Alaska Railroad summer tour guides and gift shop staff. E557 volunteers met the public and solicited donations at the ARR depot during the entire run of the 2013 Anchorage Fur Rendezvous and the ARR “Railroad Days” open house in Fairbanks. E557 cooperated with the Arkose brewery to make “557 Revival Ale” their featured summer brew and to host a fundraiser (which has resulted in a newspaper article and radio interview). The event was very successful and will be repeated in the fall. E557 has coordinated with a reporter who wrote a previous article to prepare a follow-up, and a new Engine 557 Restoration Company sign visible from the railroad and highway has encouraged a number of people to pay a visit. Passenger train tour guides point out the “engine house” when trains pass through Wasilla and it is a standard practice for E557 volunteers stand next to the sign when trains whistle for the adjacent crossing to wave

to passengers. An Internet page describes the project and provides current status and donor information; a Facebook page has been established; and information is regularly posted on several railfan Internet bulletin boards.

Restoration Facility and Equipment

Use of 5000 square feet of secure, unheated shop space in Wasilla, adjacent to the railroad and served by a rail siding, has been donated by ARR Corporation for the project. In partnership with the owner, a donated roll-up door was installed and donated services of an electrical contractor and volunteers were used to extend electrical outlets and lighting throughout the building. Temporary railroad track was installed in the building. One hundred and twenty linear feet of donated industrial shelving allows storage within the building and a donated 52-foot shipping container provides supplemental outside storage. The shelving serves a dual-purpose as lighted work bench space. A donated, relocatable office is used for administrative functions and to store materials which would be damaged by freezing. E557 has acquired a substantial collection of tools and equipment. Loans and donations of tools and equipment have included a fork lift, scissor lift, industrial drill press, bench grinder, welder, welding table, air compressors, 100-ton jacks, job site heaters, crane, ultrasound test set, and industrial band saw. Several tools were custom manufactured locally with most being donated. Purchased equipment includes an oxy-acetylene torch, portable drills and grinders, and other hand tools. A job site toilet and its weekly servicing have been donated for the duration of the project.

No engineering drawings or maintenance records were provided with the locomotive. Volunteers have spent over 100 hours researching and contacting museums and archives in the U.S. and overseas with additional searching done by a contracted researcher. A number of engineering drawings and over 400 pages of original, hand written designers engineering notes have been acquired from the Allen County (Ohio) Historical Society, California State Rail Museum, and Pennsylvania State Archives. These include extensive design calculations for the boiler and mechanical components of the locomotive.

Restoration.

Donated truck transportation of Engine 557 from the railroad shops in Anchorage to Wasilla was completed in August. Robert Franzen of Steam Services of America was contracted to advise on the restoration. He performed a preliminary assessment and advised on preparatory work needed prior to completing a comprehensive inspection, assessment, and report on the locomotive. In June, he made a second visit to assess the locomotive's condition. Mr. Franzen's report and restoration cost estimate were completed in late July.

A week-long abatement and disposal of asbestos insulation, valued at \$46,000, was donated by an environmental contractor. Volunteers removed major accessories, appliances, and other parts and marked, and stored them for refurbishment and reuse. Included are the cab, boiler jacket, air pump, pilot, injectors, smoke box front, superheater elements, brake rigging, valves, gauges, running gear, driving axles and wheels, and several hundred feet of piping. Volunteers spent over three months and several hundred hours removing 180, two-inch diameter tubes and five-inch diameter flues from the interior of the boiler. Removal involved cutting each in two places with a cutting torch and grinding off welds sealing them into the boiler. Recently commenting on the progress, Mr. Franzen stated that if his crew had dismantled the locomotive to this point he would have charged approximately \$180,000.

Volunteers are starting the process of inspecting, performing non-destructive testing, and/or refurbishing some components. They have completed over 2,200 ultrasound measurements of designated points on the boiler in order to identify the need for repairs necessary to meet Federal and State standards. Seventy years of dents and holes in the cab have been repaired and the cab has received a primer coat of paint. All of the main and side rods and valve gear links have been cleaned of old grease and paint and polished to a high sheen.

Volunteers

Over 3,100 hours have been documented by volunteers performing engine disassembly, refurbishment of components, and other direct support tasks. Another 1,200 hours have been documented by volunteers performing project management and administrative functions.

What's Next?

Engineering has been completed to open a wall to install another roll-up door and to modify the rail siding to allow direct railroad access for the locomotive. The new door is projected to be installed this fall.

Chief Mechanical Officer, Jeff DeBroeck, and Robert Franzen are working together using Mr. Franzen's report to prepare a plan for the restoration. A major task is to remove and replace a worn-out boiler fire box and to replace all stay bolts and fire tubes. Other tasks include rebuilding all appliances (air pump, injectors, generator, etc.), refurbishing worn parts in the running gear, brake linkage, and suspension, and cleaning and painting the tender tanks and frame. When possible, work will be done in-house by Engine 557 Mechanical Department volunteers. Work requiring specialized equipment or skills beyond that of our volunteers will be contracted.

In September, a welcome diversion will be a tour by 190 members of the National Railway Historical Society when the 557 engine house is a featured tour during their national convention in Alaska.