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## VOLUNTEERING AT THE GOLDEN SPIKE



By Jim O'Connor

I had never worked with a full size locomotive before and I was very excited. I didn't know how involved I would be. My web site ([www.discoverlivesteam.com](http://www.discoverlivesteam.com)) had been promoting the volunteer program at Golden Spike for over a year and I was finally taking the Park Service Rangers up on an invitation to visit and have some fun. I remember learning about the "Transcontinental Railroad" when I was in grade school back in Illinois. I remember it was at Promontory Point, Utah but I didn't remember much else.

I had given myself plenty of time for the drive up from Salt Lake City. I had planned on a 2 hour drive, but after only 90 minutes I arrived at the *Golden Spike National Historic Site*. I had read that a station and small town existed there until the tracks were pulled up in 1942. Now it looks like it must have looked over 130 years ago. There isn't much around except for a few ranches and a rocket test site about 20 miles down the road. The mountains and high valleys are just beautiful in late spring.

A half mile up the track from the visitors' center, I found the engine house where the famous locomotives are kept. There I met Keith, a volunteer at the Golden Spike. Keith told me he's one of eight regular volunteers and comes up every Saturday to work as fireman on one of the 4-4-0 "Americans"- the "Jupiter" or the "119" (one-nineteen).



The Jupiter in the engine house waiting to be fired

Both the Jupiter and 119 are working replicas of the originals (long since scrapped) built by O'Connor (no relation to this writer) Engineering Laboratories, Costa Mesa, CA. and completed in 1979. I also met Chuck, a railroad historian and volunteer. Chuck showed me a sample of the actual iron rail used in the original track. It was noticeably shorter in height and lighter in weight than modern rail.

Engineer Rick and Fireman Dave arrive and Rick lays out the plan for the day: "Start the fires, fill the water tanks, oil 'em and wipe 'em down". "We've got about 90 minutes to get the engines fired up and driven down to the *site*". "And we need to load Jupiter's tender with more firewood".



Engineer Rick oils up the Jupiter before her first run of the day

The Jupiter, like the original, is a wood burner. The Central Pacific Railroad had no access to coal, and the technology to safely burn fuel oil didn't exist, so wood was used to fire the CP's locomotives. The Union Pacific, on the other hand, took advantage of coal's much higher BTU content as plenty of coal was available east of the Rocky Mountains.

It takes longer to light the coal-fired 119, so Dave and I start there. When I follow Dave into the cab, I notice the heat still radiating from the front. The boiler is still hot and I can see by the fireman's gauge, she still has 10 pounds of pressure left from yesterday's run and better than half a sightglass of water.



Fireman Dave uses waste cotton and a few drops of fuel oil to kindle 119's fire

Dave tells me to break up the larger pieces of coal. Dave said, "we don't want anything larger than your fist to start with". After shaking the grates, Dave spreads an even layer of coal using a toss and spin technique. I never needed to do that with a live steam engine. Putting the coal where you want to is no problem. This firebox is huge and your aim is important. After a layer of coal has been laid down, a layer of firewood is added and doused with two coffee cans of #2 fuel oil, reserving just a little to dampen some waste cotton.

The cotton is placed at the firebox door, lit and pushed in. With the blower valve open and 10 pounds of pressure still on the boiler from yesterday, a modest draft is induced.

When we hop down to start oiling, I notice we are making plenty of smoke which is being handled by a powerful exhaust fan and hood located directly above 119's stack. After a 20 minute walk around the locomotive with the oil can and rag, I can hear the blower hissing very clearly. We now have 20 psi on the boiler and can turn down the blower a little.

While we wait for the steam to come up, Dave grabs a back-hoe parked behind the engine house and drives it around to the wood pile. We load the bucket with firewood for Jupiter's tender.

I didn't notice that Rick had been firing up the Jupiter while Dave and I fired the 119, and now the Jupiter had enough steam to move out of the engine house. Rick said that the Jupiter was much faster to fire than 119 because the wood caught so quickly.

With a steady ring of her bell, the Jupiter slowly creeps out of the engine house, stopping when the tender has cleared the door. After loading 3 full buckets of firewood, the tender is full and Jupiter is ready to take her place at the *Last Spike Site*.

The Jupiter slowly makes her way down the hill, taking the right branch of the wye as her bell stops tolling. When she reaches the end of the main, she reverses and silently backs toward the site of the reenactment of the golden spike ceremony.

All alone in the giant field of prairie grass, she looks like a colorful toy dropped in the middle of an immense playground. Then the blow-down valve is opened and a jet of steam races from under the locomotive, a moment later the sound of rushing steam echoes across the valley. It serves as a reality check- **this is no toy train!**



Cab of the 119 with just over 20 psi on the gauge



The Jupiter emerges from the engine house



Blowing down the Jupiter

Rick drove the Jupiter around a bend to the left where the upcoming ceremony would take place. Leaving her in position, Rick quickly drives back to the engine house in an old pickup truck dubbed "Air Force One". Rick asks if I want to ride over to the "site" in 119. Of course, I said "Yeah!"

We scramble into the cab along with another visitor, Lynn from PBS, doing research on the Transcontinental Railroad for an upcoming television special.

Before we can leave, someone has to throw the switch to the other wye track. I volunteer and step back down onto the right-of-way. I was told to always enter and exit from the engineer's side (the right side of the engine).

continued, click "[part 2](#)"



[Official Golden Spike Site](#)

Information: (435) 471-2209.

Directions: from Salt Lake City: take Interstate 15 north to exit 368, toward Corinne. After a few miles veer left on Highway 83 to the Golden Spike turn. Golden Spike is 32 miles from I-15.

**About the author**



**[Jim O'Connor](#)** is a web site publisher and live steamer from Northeastern Illinois near Chicago. To pay his bills, he works as a maintenance mechanic and has a stationary engineer's license. Jim has operated and helped maintain several live steam engines.



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