



Above: This set of eight lead-acid batteries is similar to what is found in each diesel locomotive here at the Western Pacific Railroad Museum (and on the railroads). Each 4-cell battery in this set produces 8 volts and they are all connected in series to produce 64 volts for the electrical systems on the locomotive, which is the industry standard.

Below: Alan Hirasawa installing batteries.
- photos by Paul Finnegan

**Things Around the Museum:
Locomotive Starting Batteries**

- Data for **each** battery:
- 11" wide x 18" tall x 29" long
- Wet weight: 440 lbs. (set of eight batteries weighs 3520 lbs.)
- Contains approximately 4 gallons of electrolyte (1 gallon per cell)
- 8-hour rating: 565 amp-hours
- Cost for a set of 8: approximately \$10,000

The batteries are connected by 3/0 and/or 4/0 cables and are capable of producing a momentary initial engine starting current in excess of 3000 amps to start the diesel engine.



Debbie Shuman, Congressman Doug LaMalfa, Ann Morningstar in the booth.
- photo by Matt Shuman

FRRS at Graeagle Independence Day Celebration
- Matt Shuman

The "Team Minion's" consisting of Ann Morningstar, Debbie and Matthew Shuman setup a booth for the WPRM at the Graeagle Park Sunday July 7th for the "Graeagle Independence Day Festival" on an overcast beautiful morning. We manned this booth from 9:00 a.m. until 3:00 p.m. when we broke down the booth and returned all but the tablecloths which Debbie took home to be washed for the next event. They were getting pretty dirty.

During this time in the park we addressed many people and questions. Several had questions about train rides and how to make contact with someone about them. I took their e-mail addresses and e-mailed them all on Monday the 8th with "Trains & Travel" contact information for Chris Skow. We also made many contacts about the upcoming "Western Pacific Celebration Days" event in August including a vendor that was next to us that was selling zipper pulls to support disabled vets & families of fallen heroes. She will tentatively be at our event in August.

It was a great turnout at the booth with many adults and children. The best part of the day though was when Congressman Doug LaMalfa stopped by and chatted for 30 minutes with us. We talked a lot about trains, the museum and both full-size and toy trains we have at home. He loves trains.