## Greetings!

This is your Maintenance of Way Team update for December 11, 2016. Polar Express continues rolling south to the North Pole with great success on tracks maintained to meet and exceed all Federal Railroad Administration safety standards, thanks to the fantastic volunteers of your MOW Team. So, let's get you up-to-date on all the activities of these great folks as they strive to build a better railroad.

If it's Tuesday, this must be Maintenance of Way for Pat Scholzen, Anthony Filamor, Cliff Hayes, Alan Hardy, Joe Marcuggi, Matt McCracken, Gene Peck, Mike Harris, Heather Kearns, and John Chandler. The Team split into two groups – Team Tamper and Team Tie-Shear. Mike H. led Team Tamper and accompanied Anthony, Joe, Matt, and Heather over to Old Sacramento to remove two malfunctioning vibrating motors on the tamper and returned to the Shops for repair. The tamper's work-heads are a labyrinth of hydraulic hoses and steel apparatuses and working within its confines is difficult in the best conditions. Alas, the darkness became a major handicap and trying to remove machine-tightened bolts with hand-tools proved, in some cases, an exercise in futility. But, Team Tamper persevered managed to remove one of the bad motors. The other would require the pneumatic impact-wrench. Meanwhile, Team Tie-Shear endeavored to repair the malfunctioning "kicker" latches. Pat took a seat in the control cab and operated the kickers for Cliff, Gene, Alan, and John to work on. Cliff descended into the pit under the machine to weld new fasteners to the kickers for the latches to grasp. However, once retracted, the kickers hung lower than anticipated and may not clear frogs and closure-rails in switches as it rolls down the track. A reevaluation is underway. But, there is no doubting the MOW Team's dedication and determination even in the most challenging of circumstances.

Thursday, Joe, Alan, Cliff, Matt, Frank Werry, Heather, and John gathered at the Shops. Retrieving the tamper was first and foremost on the agenda. To make room for the tamper in the Erecting Shop, the Kalamazoo tug would be sent over to Old Sac. As the ballast regulator was ahead of the Kalamazoo, Joe took climbed up in the cab and moved it out onto the transfer table so the tug could escape. John and Matt took out the tug and Conductor Frank arranged with the dispatchers in Omaha a quick crossing over the UP Main. With great alacrity, Joe and John piloted the tamper back to the Shops where the second vibrator motor could be removed under proper conditions. For the remainder of the evening, the Team headed to the Boiler Shop where Frank, Joe, and Matt loaded the cracked wing-rail and replacement rail for the frog at Switch 19 into the truck. It didn't make it to the machine shop last week. But, on Friday, Alan and Heather did get it there to be professionally milled to fit in the frog structure. Meanwhile, Cliff continued his stellar work on the tie-shear. The evening ended with the distant echoes of that lonesome whistle as the Polar Express headed south to the North Pole.

Forecasts predicted that a hard rain's a-gonna fall on Saturday, and they were right. Despite the early morning rain, Alan, Joe, Clem Meier, Pam Tatro, Anthony, Michael Florentine, Heather, and Chris Carlson were ready for more MOW fun. They knew that there was no sense crying in the rain (especially without blue-eyes) when such a large pink-box of fresh sugary goodness was waiting under the Erecting Shop's tin roof. As the tamper was out of service, continuing the track-raise south of Clunie was impossible. Also, electrical power was out in the Boiler Shop which added to our falling rain blues. But, as they say, into each life some rain must fall, so the Team made the best of it. Chris and Alan set to work on the tie-shear. Another issue was uncovered during all the work on the kickers. The main lift cylinder for the lefthand shear was leaking badly. This is a massive cylinder weighing hundreds of pounds. Its interior seals were shot, so Chris and Alan began the process of disassembling it for removal. It will be taken to a specialty hydraulic shop for a rebuild. Joe and Clem climbed deep into the inner reaches of the tamper to remove the faulty vibrator motor. But, Heather, Mike F., Pam, and Anthony were getting cabin-fever and wanted to play outside. First they surveyed the materials yard to the west of the Boiler Shop for a new head-block to use at Switch 2. They found several but, in order to access them, half of everything stored out there will have to be moved. Then they headed to Old Sacramento to make further adjustments to Switch 2 which was still acting up. After a thorough study of the switch in motion seeking to find what was causing it to bind when thrown to the House Track, Mike F. noticed that part of the control-rod connector was hitting a tie and switch-plate. The solution was to move the offending tie a few inches south. A track-jack was placed horizontally and cranked to push the tie south. Their efforts did improve the switch's movement. The ultimate solution will be the replacement of the head-block (in the weeks to come). Next, the A-4 motorcar would not start – again. So, Anthony, Pam, and Mike F. moved it out of the container for Heather to work her magic. Soon it was up and running. The Team then headed south on the Mainline to inspect for any downed trees as a result of the storm.

After lunch, the Team returned to the Shops to continue working on the tamper and tie-shear. Heather and Joe undertook a radiator service on the tamper while Anthony joined Alan and Chris in removing the shear cylinder. Ease of maintenance was not considered when these machines were designed. Just getting one's hands into the tight areas in order to remove bolts was a challenge. At one point, Anthony, Chris, and Alan were combining their collective efforts on a single wrench to break-free several bolts. In the end, it had been quite a successful day with several accomplishments: the tamper's vibrator motors are on their way to being repaired, the tie-shear's lift-cylinder is ready to come out, Switch 2 throws more easily, and the A-4 motorcar runs again. With all that accomplishment, your MOW Team made it through the rain and turned into a bright sunshiny day!

Here comes that rainy day feeling again as we enter the final week of Polar Express 2016. Rain is predicted on Tuesday and Thursday evenings. But, the MOW Team will gather as usual under the tin roof at or before 5 o'clock. The forecast for Saturday is dry so, make sure and get to the Erecting Shop by 8 o'clock a.m. for your weekly doughnut ration. It promises to be a fun one. Many thanks to everyone!

See you out on the line,

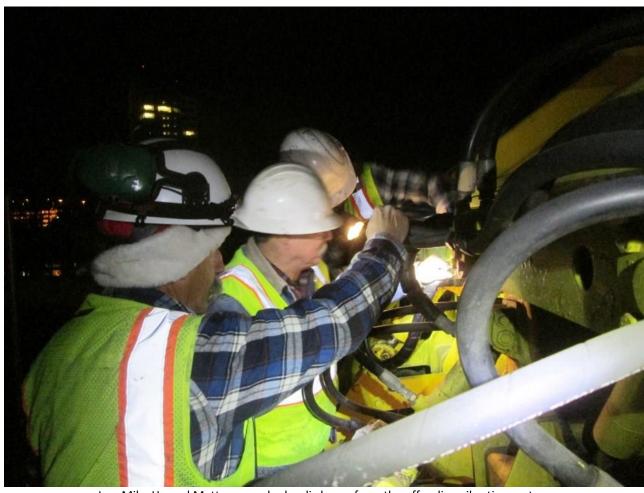
Alan, Chris, and Richard.



Matt, Mike H., and Joe work to remove a vibrator motor on the tamper



Conditions weren't exactly ideal for this work



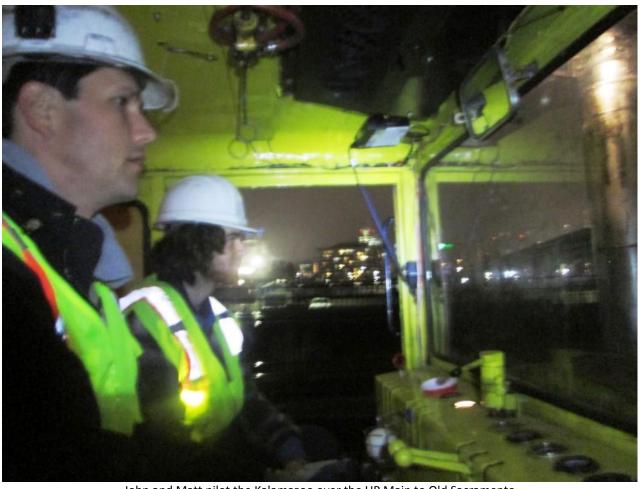
Joe, Mike H., and Matt remove hydraulic hoses from the offending vibrating motors



Cliff welds new latch-hooks to the tie-shear's kicker



Cliff descends into the pit under the shear to get better access to the kicker



John and Matt pilot the Kalamazoo over the UP Main to Old Sacramento



Now in the Erecting Shop where conditions are better, Joe and Matt begin removing the vibrator motor



Matt handles the forklift as Joe and Anthony guide the replacement wing-rail into the truck



Chris begins the process of disassembling the main lift-cylinder for the shear



Clem and Joe, with the high-vis safety Santa hat, work on the tamper



Let there be light: with the electricity out in the Boiler Shop, the Team fired-up its mobile light-plant



Pam, Heather, and Anthony on the search for head-blocks



Eureka! Mike F. appears to have sighted something



Heather, Pam, Anthony, and Mike F. may have found the problem...





Pam and Mike F. loosen the soil-cement around the tie to be moved



As Mike F. cranks on the jack, Pam strikes the bracket with the sledge hammer to help it slide



Once the tie is moved, Mike F. and Pam pack dirt under the tie to hold it in place



Meanwhile, Heather and Anthony restore the A-4 motorcar to life



Anthony, Heather, Mike F., and Pam take a ride on the Polar Express – Maintenance of Way style...



Chris, Anthony, and Alan combine forces to break-free a bolt



Heather looking in on the vibrator motor removal from the tamper



Now with more space, Joe inspects the removed vibrator motor



Chris and Alan attach a sling to the cylinder guide as Anthony on the forklift lifts it out of the tie-shear