

LESSONS LEARNED

Driving Incident (Braking Issue)

Date/Time: July 12, 2008 @ 09:00 hrs
Location: Canyon Complex, Plumas N.F.
Employee Title: Engineer
Purpose: Suppressing Wildland Fire returning to ICP

Details:

A Type 3 Engine assigned to night operations was returning to ICP and experienced a critical situation on a steep grade.

The air brake equipped vehicle was descending a grade on the 51 road, the driver noticed that the auxiliary brake was not functioning properly and began to use the air brakes to slow down. As the vehicle continued the descent through a winding steep section the brakes began to fade which resulted in a higher speed through the corners. As the engine was approaching a hairpin corner the vehicle became unbalanced and the inside duals (passenger side) came off the pavement. The driver straightened the vehicle out and brought the vehicle to a stop in the opposite lane of traffic.

Vehicles following the Engine positioned their vehicles with emergency lighting to warn any oncoming traffic. The Engine crew allowed the brakes cool for about 30 minutes and then moved to a safe location where they let the brakes cool for another hour.

During this time the crew emptied the water tank. They proceeded to ICP in low gear with a vehicle in front of them for safety.

Upon return to ICP the Engine Captain took the Engine to ground support for a vehicle inspection. The relay switch for the exhaust brake was replaced and the rest of the braking system was inspected. The ground support mechanic checked over the system and test drove the vehicle and released the engine back to service.

Lesson(s) Learned:

- Pre-trip inspections should be performed daily (State Law)
- Select low gears prior to descending steep grades
- Do not rely on Auxiliary brakes only
- Have a plan in place for emergency situations
- Be well rested prior to making long trips on narrow, steep canyon roadways
- Know and understand the limitations of the vehicle you are driving
- Maintain a safe distance between vehicles
- Know and understand the braking system and problems that can arise
- If long durations of heavy braking will be required, stop and give the brakes a chance to cool off and the air system to recover
- Know your travel routes
- Evaluate necessary travel (Risk vs Gain)
- Report mechanical problem to fleet maintenance personnel