

# Rapid Lesson Sharing

**Event Type:** Heat from Fire Causes Engine's  
Air Brake Failure

**Date:** April 14, 2016

**Location:** Tallgrass Prairie National Preserve  
Kansas

***Any wildland engine with air brakes that is used  
in a direct attack should be inspected for exposed brake lines  
that could be in danger of melting and locking the brakes  
in an unsafe location.***

## NARRATIVE

On April 14, a prescribed fire on private land escaped onto the Tallgrass Prairie National Preserve. National Park Service, County, and private fire resources attacked the fire and contained it at 76 acres.

During Initial Attack, one of the county's Type 4 Engines—built on an M-923/925 military surplus chassis—experienced a mechanical failure. The engine became immobile as fire approached. The operator escaped unharmed to a safety zone. Fire eventually moved through and the engine sustained minimal damage.

Subsequent investigation revealed that while engaged in direct attack heat resulted in the small melted holes in the plastic air system lines located under the driver's door, causing a loss of air pressure and the locking of the air brakes.



***The airline manifold—located under the driver's door—is circled in red. (This is a truck/engine similar to the one involved in this incident.)***

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## LESSONS

- ✓ After the fire, the Fire Chief and his staff rerouted these air lines located under the driver's door so they are more shielded from heat.
  - ✓ This unit is currently investigating additional methods for insulating or shielding these air lines.
  - ✓ They are also re-emphasizing the importance of working inside the black whenever possible.
  - ✓ Because these M-900 trucks are used all over the country as wildland engines—and other models of wildland engines may also have these exposed plastic airlines—it was determined that this lesson should be shared outside the local agencies that were involved in this incident.
  - ✓ Any wildland engine with air brakes that is used in a direct attack should be inspected for exposed brake lines that could be in danger of melting and locking the brakes in an unsafe location.
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**This RLS was submitted by:  
State Member of this Incident's AAR**

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