

Rapid Lesson Sharing



Event Type: Removing Combustible Debris Beneath Floor Plates on Polaris Rangers

Location: Wichita Mountain National Wildlife Refuge Fire Shop – Oklahoma

Narrative

Two weeks ago, our fire staff decided to add a small work light on the rear of our 2011 6x6 Polaris Ranger. When they removed the plastic floor panel to aid in pulling the new wire, they found that the entire compartment underneath the floor panel was completely full of cured grass, sticks, and other dead vegetation. Cleaned out before a picture of this debris was taken, it was described as looking “like a hay bale”.

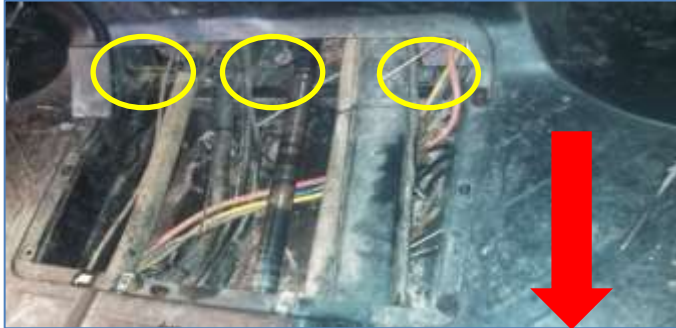


Photo 1 (above) – Shows the access panel removed. You can see the front drive shaft, several wiring looms, and other plumbing running through the compartment. The areas circled in yellow are the places where the material was able to enter and get packed in under the floor board. On right, paint on the front drive shaft has been worn off from rubbing on the grass and sticks. The red arrow approximates the location of the fuel tank.



Photo 2 (above) – Taken from the front of the Ranger looking in on the passenger side of the hole (identified in Photo 1 above). The red and yellow cables can also be seen from inside in Photo 1.



The material, packed in tightly, completely filled the compartment.

Although it doesn't appear that there is a potential ignition source under the floor board, given how these machines are operated, it would be very easy for an external ignition source to light the accumulated material—causing a fire that would be extremely hard to access and put out.

While the floor panel is plastic—and consequently flammable—the underside of the compartment is a metal skid plate that has a few factory holes. The location of this compartment puts it close to the fuel tank, located on the passenger side, also constructed of plastic. Should accumulated vegetation catch fire in there, it places a substantial ignition source close to the gas tank.

Lessons

Our recommendation is to make removing the floor plate part of your vehicle inspections—and doing so at a minimum of once a month. Realistically, any time the vehicle has been driven in taller grass (1 to 2 feet)—that could be forced through the holes into the under-floor compartment—the access panel should be removed to clean out any material that has accumulated. This will help keep the fire risk to a minimum. We believe that the 4x4 Rangers have a similar compartment in the floor that should also be checked.

Submitted By
Incident Overhead

Photo 3 (on left) – Shows the accumulation of debris from two operational periods on an RX fire (after the compartment was cleaned out for the original pictures).

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