Does AEROplus wind deflector really improve gas mileage?
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Category: General

When Australian caravan accessories manufacturer Purple Line contacted us to try out their new AEROplus wind deflector, I met the project with a bit of skepticism. After all, I wondered how attaching this thing would improve my fuel economy and handling as the company claimed it would. As I began to learn more about the product, including laboratory testing, I became more interested in trying it.

There was a problem, though, which would make my test far more challenging. The AEROplus was designed for SUVs and caravans in the U.K., and our test vehicle was a 2012 Ford F-350 with a Leer commercial cap with roof rack (and plenty of equipment inside) and a 2013 Coleman 34-foot travel trailer. The combined weight as tested was 19,980 pounds. What could this little thing do for me, I wondered?

Well, I am here to tell you, again, as I have with some other products we've tested: This thing works.

When I received the test unit, the first thing I did was assemble the brackets. A quick look at their online video before doing this is a help, and plan for a lot of wrench time tightening the nylock nut that holds the main brackets down. This only needs to be done once, however, and the rest of the install is easy for most ... but not all.

The Leer DCC commercial cap is a toolbox that mounts to thebed of the pickup truck, and comes in various heights with custom storage cabinets on the sides, and an aluminum ladder rack on the roof. I thought with this rack it would be easy to install, and I was wrong. The AEROplus, designed for SUV roof racks, would not fit this rack directly. I thought this would be the end of the test, or I would have to find another SUV and trailer to test the unit on.

Well, Paul Liner, the managing director of Purple Line, wouldn't settle for that. He wanted us to do a real world test here in the U.S. So, we looked at a number of options, from fabricating a new rack, or re-engineering the existing one, to replacing the whole assembly. Well, we put our heads together and came up with a combination of all the above. Paul supplied the parts I needed, and I fabricated the rest.