Aerodynamic Gear Causes Problems, Roadside Inspection Officials Say

By Eric Miller
Staff Reporter

To see or not to see. That is a question that commercial vehicle inspectors have wrestled with for years.

In its regulatory zeal to reduce emissions and improve the fuel efficiency of heavy trucks, the federal government has created a nettlesome unintended consequence for the 13,000 men and women who conduct roadside commercial vehicle inspections.

Here’s the problem: The trailer skirts, tractor air dams and other aerodynamic accessories on some newer tractors and trailers are so low to the ground that many inspectors simply can’t fit under the truck to properly see and inspect all the brakes.

“I’m not a big officer, and there are trucks I can’t even get under,” said Kerri Wirachowsky, transportation enforcement officer with the Ontario Ministry of Transportation. “If I can’t get under them, I struggle to understand how some officers have been getting under them and taking accurate brake measurements.

“To be honest, I’m thinking they haven’t — that they’ve just been making it up.”

It’s a quandary that, for a long time, has left inspectors to come up with their own solutions, Wirachowsky said.

Stephen Keppler, executive director of the Commercial Vehicle Safety Alliance, said it’s a major problem that could get worse.

“We obviously have some concerns, because the more difficult it is to inspect, the more likely it’s not to be inspected. We know, unfortunately, that there are too many fleets that don’t take their maintenance programs seriously. We see that in the data.

“One of the purposes of a roadside inspection is that check and balance to ensure that the fleet has an adequate systematic maintenance program in place. If we can’t inspect all aspects of the vehicle to do that appropriate assessment, that’s a challenge.

“It’s only going to get worse in the future, with the aerodynamic devices and all the changes coming and new vehicle designs and disk brakes. We’re having some discussions about how best to plan for that.”

The difficulty of inspecting hidden parts was a topic at a recent CVSA conference in Buffalo, New York, Keppler said. The agency launched a working group that is going to be looking at the concept of electronic-based inspections. “With new technologies continuing to be put into the vehicle, how is that going to change the inspection of the future?” he asked.

Some Officers Skip Brakes; Others Downgrade Inspections

“For us in Colorado, we don’t have any way of doing it, other than crawling under the truck. We don’t have any pits on any of those stations where you can roll a truck on top. We’re always on a creeper,” Guddat said.

Wirachowsky suspects that some inspectors created their own ad hoc policies and ignored their inability to get to the brakes, while others went by the book and downgraded the inspection from a Level I to a Level II.

“Twenty-five years ago, inspectors could just dive under a truck with no problem. It’s not that way anymore — and it’s getting worse,” Wirachowsky said.

Although a compromise policy change has given inspectors a workaround of sorts, the regulatory pressure is getting even tougher, creating more “hidden components” on tractors and trailers, said Wirachowsky, chairwoman of the Commercial Vehicle Safety Alliance’s vehicle committee.

The topic has been a hot one for years, but a CVSA policy tweak in late 2013 helped clear up some of the integrity concerns and confusion facing inspectors who are too big to get under the truck or unable to see components hidden beneath aerodynamic technologies such as wheel covers and fairings.

With the change to CVSA’s Operational Policy 5, a roadside inspector now can complete a thorough Level I inspection and issue a CVSA sticker, even if he or she can’t get under a truck to measure the push-rod stroke on the brakes on one of the truck’s five axles.

“If a brake cannot be measured for push-rod stroke, we mark on the inspection “NM” for “not measured,” said William Schaefer, director of vehicle programs for CVSA. “We consider it in compliance if we don’t measure it, but if more than 20% of the brakes can’t be measured, then we can’t consider it a Level I inspection.”

A 5-axle truck typically has 10 brakes, so if more than two of the brakes can’t be measured, the inspection would need to be downgraded to a Level II, which is basically a walk-around inspection.

That also would mean a trucker would not be given a CVSA sticker, which could be a blemish on a carrier’s record and make a truck more likely to get another Level I inspection when it stops at truck scales, Schaefer said.

Schaefer conceded that the policy is a bit of a compromise because the regulations require that a truck must have push-rod stroke compliance within certain limits on its brakes.

It’s a different story if an inspector can see all 10 brakes and two of them are not within the compliance limit. In that case, the vehicle can be placed out of service. But if the inspector can’t see or measure the brakes on one of the axles, then the vehicle can pass a Level I inspection and get a CVSA sticker if other critical components are in good operating order.

CVSAs’ Keppler said that could be a problem. “With this hidden-components issue, you’re essentially giving the fleet the benefit of the doubt. For the responsible fleets, that’s not a problem. But for those that aren’t responsible, that’s potentially a problem.”

Even with the compromise for brakes, however, it’s not crystal clear with other hidden components.

“There are some growing issues with certain vehicle designs,” Schaefer said. “And with aerodynamic devices, there are panels on the side of the vehicles that don’t allow inspection of the wheel fasteners — you can’t tell if they’re loose — and some of the other devices are limiting access to get under the vehicle.”

Low-slung trucks also can challenge an inspector to get a good look at driveline or suspension components, Schaefer said.

“Before the policy change, people kind of had their own way of dealing with those issues,” Guddat said. “The policy change allows for a little more confidence, and we’re all having some consistency.”

But when inspectors can’t get a good look at hidden components other than brakes, the truck, in effect, can still get a passing grade.

“We inspect the full vehicle, and everything that we can see, we look at,” Schaefer said. “If we can’t see something, we have to assume that it’s working well.”

Wirachowsky added, “We’re basically covered under the hidden-component policy that says we can only inspect what we can see.”

But when it comes to brakes, typically it’s only a problem with one of the axles, Guddat said.

“With some of the Volvos and the new Freightliners,” he added, “it’s usually only the second axle that you have a hard time getting to, between the fuel tanks and the boxes, especially if you’re an oversized inspector, like I am.”

The evidence is largely anecdotal, but Schaefer and Wirachowsky said the revised policy is working, even if it relieves officer concerns only over doing the right thing.

“Before, when you realized there was an axle you couldn’t get to, the inspector: A, had to downgrade the inspection to a Level II; or B, make something up; or C, ignore it,” Wirachowsky said. “B and C are not the correct things to do.”

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ssmith@smarttrucksystems.com