



# Kansas RTAP Fact Sheet

A Service of The University of Kansas Transportation Center for Rural Transit Providers

## Check Up Before You Check Out

by James C. Holland

As a result of changes in vehicle bidding procedures over the past few years, Kansas rural and specialized transit providers purchasing vehicles with funding from KDOT or the FTA have become responsible for inspecting vehicles at the time of delivery from the vendor. According to Jim Van Sickel, program manager for the Office of Public Transportation, it's been about five years since this responsibility shifted from KDOT personnel to transit agencies.

Since inspection is an infrequent responsibility for most agencies, perhaps only once every five or six years, the delivery inspections have been a daunting task, particularly for smaller agencies. More important, staff not trained on how to conduct a thorough inspection can risk missing essential operational components. They might accept and pay for a vehicle that does not meet all specifications.

This article will describe the three different types of vehicle inspections that help agencies assure proper operation of new vehicles and continued good service once they are in use.

### Types of inspections

Proper vehicle maintenance requires the three types of inspections: the delivery inspection, the pre-trip inspection and the annual inspection.

✓ **Delivery inspection.** The delivery inspection should occur when a vehicle is delivered to your agency by the manufacturer or the vendor. At this point, you should specifically check to make sure the vehicle meets all the specifications. The vendor should give you a complete tour of the new vehicle, as well as provide training for any unfamiliar vehicle operations. If the vehicle fails to meet the requirements set forth in the specifications, the vehicle should not be accepted.



Before the new vehicle arrives, your agency should study the vehicle specifications and devise a list of questions regarding any unfamiliar operations—so that no questions are left unanswered during the delivery inspection.

A comprehensive delivery checklist is available from the KDOT and is typically sent to the agency prior to placing an order. This checklist is designed to assist the agency in making sure the manufacturer has complied

with all requirements of the vehicle specifications and that the vehicle is in good working order when you receive it. The checklist also helps ensure that you and your staff know how to operate the vehicle and its special equipment.

There are many key elements to look for when performing a delivery inspection: Start inside the cab and test the parking brake to verify that the brake indicator functions and that the vehicle doesn't move when the brake is on.

Next, inspect the vehicle's mirrors. Verify that the buzzer system is activated when the vehicle transmission is engaged in reverse and continues while the vehicle is being backed up.

Now check the driver controls. Verify that when all circuits are off, the interior lights, brake lights and horn remain working. Afterward, test the exterior lights with an assistant outside the vehicle inspecting the brake lights, backup lights, rear license plate lights, marker lights, turn signals and head lights. Also, verify that all lamps illuminate at the doorways, including where the lift is installed. When the doors open, the light should provide adequate visibility for safe boarding.

Your van should come equipped with one or more wheelchair stations. Each station's restraint system must have two ratchet belts, two cam buckle belts and four snap-in track sections that complete the four-point restraint

system. Make sure that each wheelchair position is equipped with a pelvic-high lap belt and shoulder harness. Each regular seat should also have a lap or shoulder-lap belt.

Check for the fire extinguisher, a first aid kit, blood borne pathogen kit, seat belt cutter, fluorescent triangle set and a drag blanket for all emergency purposes. If applicable, check the emergency exit or emergency roof vent to be sure it can be operated from both inside and outside.

Finally, inspect the wheelchair lift, if specified for this particular vehicle. The following ADA requirements must be met: the lift must be hydraulically-powered, with a hand pump for power failure, and the platform must be at least 32 by 48 inches, with a band of color running the full width of the lift. Be aware that the wheelchair lockout system will not allow the lift to move without the parking brake being set.

✓ **Pe-Trip inspection.** Being able to spot a potential problem with your vehicle can prevent many roadside breakdowns. That is why a pre-trip inspection of your vehicle should be conducted daily. This also helps prevent major repair costs.

To conduct a pre-trip inspection, walk around the vehicle looking for any kind of body damage and also any dents or cracks in the windshield or mirrors. Look underneath the vehicle and inspect the ground for evidence of leaks and check the undercarriage for loose parts.

Now start the engine and turn on the headlights and the four-way flashers; this should turn on all exterior lights. Check to see that the dash lights are on and both the high and low beams on your headlights are working. Again, walk around the vehicle to check each lamp.

Check the conditions of all tires, including the spare. Afterward, check under the hood. Turn off the engine and report any item requiring maintenance immediately. Now, check the battery (unless it is maintenance free), the fluid

levels, the cable connectors, and post connectors. Examine the belts and hoses for cracks and excess wear and any spongy, or hard to squeeze, or cracked hoses.

The final step of the pre-trip inspection takes place inside the vehicle, where you should check for loose objects and cleanliness. Make sure that seat belts and safety restraints are available and functioning. Check all equipment to make sure that it is not only in place, but also functional. Make sure the lift runs smoothly throughout its entire cycle.

If any problems are noticed, they should be reported immediately to the agency's director and the vendor.

✓ **Annual inspection.** The final form of inspection—annual inspection—is performed by KDOT, and will help ensure that the vehicle is safe and long-lasting. In the annual inspection, the state inspector will examine the vehicle for unusual wear and tear, particularly brakes, tires, wheelchair lift (if equipped), lights, and general engine condition.

While inspections will prove useful in determining the condition of your transit vehicle, other factors should also be considered. The safety of a vehicle may also be determined through the examination of maintenance records; records which include information regarding the dates of oil, filter and brake changes and any other maintenance work performed on the vehicle. More commonly-identified problems during an annual inspection are oil leaks, wheel chair lifts needing repair, marker lights that do not function and cracked windshields.

A regular maintenance log should be kept on each vehicle to show routine maintenance conducted on the vehicle.

By conducting these three inspections, your transit agency can help prevent roadside breakdowns and lengthen the life of your fleet. Most important, preventive maintenance checks ensure that the services

provided are safe and reliable. After assuring a thorough delivery inspection, you must continue to perform careful examinations of your vehicles prior to each trip, and annually.

### **Sources**

*Small Transit Vehicle Inspections: Delivery, Pre-Trip and Annual Inspection Procedures*, K.U. Transportation Center, 1997.

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