

## The Art of Truckmount Maintenance

by Chris Ryan

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As a truckmount repair technician, I know firsthand that proper user maintenance of a truck-mounted carpet extractor is critical not only in keeping the machine running its best, but also in minimizing costly repair bills and improving the overall longevity of the unit, all of which mean more money in the pocket of the carpet-cleaning technician.



Although major maintenance and repair typically must be turned over to a qualified service center, there are preventive measures users can take to decrease the number of major issues and keep their units running well.

Probably the most important thing carpet-cleaning technicians can do is simply get to know their machine, understanding how it operates, where controls are located, and what situations can affect its performance. This way, the user can better avoid any potential problems and, when problems do arise, can more readily determine what might be causing them.

Sometimes ascertaining what is causing the problem requires the user to think beyond typical repair issues. Case in point: A Colorado carpet cleaner purchased a brand-new truck and truckmount. The machine was installed at the manufacturer's facility and then tested for more than four hours, as is the usual procedure. The unit passed all tests and the excited customer took delivery of the equipment.

On the very first job with the new machine, the unit shut down repeatedly and gauges indicated the unit was overheating. Surprised and definitely upset that his new machine would fail him so quickly, the carpet cleaner contacted the manufacturer to see what could be causing the problem.

After going through a number of troubleshooting checkpoints, the manufacturer's call center service technicians were initially mystified as to what could be causing the problem. So they decided to "think outside the box," retrace their steps and consider what could possibly be triggering the unit to stall.

What they uncovered was that the equipment had been installed and tested at the manufacturer's West Coast facility, which is at sea level; however, it was being used in Denver, located at more than 5,000 feet above sea level. A factor initially overlooked was the impact the rise in elevation would have on the machine. As the altitude increased, air became trapped in the engine of the truckmount, enough to impair its cooling system. In this case, a simple adjustment and the addition of more coolant took care of the problem.

Environmental Impact

This is just one example of how the environment where the truckmount is being used can affect its performance. Heat and cold can also present an array of performance problems for truckmounts, but, just as with the altitude problem, understanding the machine, being aware of these factors, and looking beyond typical repair issues can often rectify any problems and minimize downtime.

For instance, it's always a good idea to consider the machine's layout in the van, especially in warm climates and at warmer times of the year. When temperatures outside the van reach 85 degrees F or more, the inside of the van can easily be another 30 degrees hotter when the machine is in use. If the van is also filled with other equipment and multiple accessories placed in every nook and cranny, this can severely impede airflow. Situations such as this can lead to vapor-lock conditions as well as overheating conditions – all of which will cause unnecessary frustration and downtime for the user.

To prevent situations such as this:

- Know that environmental factors such as excessive hot or cold temperatures can affect the machine's performance.
- In hotter climates, install roof vents, powered if possible for easier access and control, in the mid- and rear sections of the van.
- Operate the machine with the back door and side door open whenever possible.
- Clean and de-clutter the van. Not only does this look more professional and improve worker morale, but it facilitates air circulation in the van and around the machine.
- Consider truckmount systems that take up less space in the van.

#### Using the Right Power Cord



Heat, cold, and clutter are not the only external factors that can cause a truckmount to perform poorly. Sometimes, just the wrong-sized power cord to operate accessory equipment can wreak havoc and impair the machine's performance. If an improperly sized cord is used, the result can be a popping breaker or, in the case of a rotary machine used with the extractor, the cleaning head may not start or may turn slower than normal.

One reason for an incorrect power cord is because an after-market extension cord is used. A standard extension cord that is purchased at your local hardware store is typically 16/3 or 18/3, which means there are three 16- or 18-gauge wires inside the cord. These cords are not large enough to supply the correct amount of power when using powered truckmount accessories, and there is a possibility that this could damage the motor.

Typically, this problem can be avoided by following the recommendations in the owner's manual for the proper size of extension cord.

#### Regular Maintenance Issues

There are actually a number of things end users can do to keep their machines running properly and, even more important, help prevent more serious problems from developing. Many of these they have learned from the machines' manufacturers as well as their local distributors. However, many more have been learned on the job, again, just by getting to know their equipment.

- Read the owner's manual and keep it handy. It will not only discuss operating procedures but will have a complete maintenance schedule listed.
- Keep a maintenance log. While this was more common years ago, it is a practice that should be continued. Establish a regular maintenance schedule for both the truckmount equipment and the van, and stick to it.
- Check the filters, filter bags, and mesh bags daily. If it is an exceedingly busy day, check them a couple of times per day. These are typically located where the vacuum hose enters the recovery tank. A mesh bag protects the vacuum motor/blower and should be checked/cleaned at least once per day. External filter bags, which are often used to show the customer how much soil was removed from the carpet, should be cleaned after each job.
- With direct drive systems, those powered by the van's motor, change the van's oil filters monthly. This is rarely recommended by the van's manufacturer, but several carpet cleaning technicians have pointed out that they find this helpful and it has improved the van's dependability.
- Check oil fluid levels daily of both the truckmount equipment and the truck or van. Change per manufacturer recommendations.
- Use synthetic lubricants. Regular oil contains sulfur, which can damage the engine's components. The oil contains additives to prevent this, but with time they can break down, which can cause the sulfur to damage the engine. Use synthetic lubricants for both the van's engine and the truckmount, if it is self-powered.
- Watch for oil leaks. An oil leak indicates that a gasket may be wearing out. This applies to both direct drive systems as well as slide-ins; however, on a slide-in, this may be even more critical. With a direct drive system, pull the housing between the seats to make sure it is dry and there are no leaks. With a slide-in, oil leaks may also indicate a pump or vacuum blower problem. These start slowly but can become serious relatively quickly.
- Listen to the equipment. The sound of the system when new is how the equipment should sound all the time. As soon as a strange noise is detected or the sound changes, it is an indication that a problem may be developing.
- A de-scaler may be required for the water-heating system to remove hard water buildup and deposits along with detergent residue. These can affect the heater coils and reduce the machine's heating potential.

Carpet cleaning technicians know, and have often learned the hard way, that equipment failure is more than an inconvenience – it's expensive. Routine maintenance helps prevent equipment breakdown, saves the user money, and ultimately helps make money for the equipment owner by always having an efficient machine in working order. You wouldn't expect your car to run at peak performance or last much longer than the loan without regular and



required maintenance. The same applies to truckmounts. The risk of problems, and the inconvenience they create, is usually enough to motivate most cleaning professionals to spend the necessary 20 minutes or so each day making sure their equipment is running up to par.

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