

Why is Hydrovac Weight an Issue?

Patrick McGee, Eastern Canada Sales Manager - Hydrovac, Sewer and Sweeper Products, [Joe Johnson Equipment](#), Subsidiary of Federal Signal Corporation

In Ontario, hydrovacs fell under the road building machine category for decades which exempted hydrovacs from licensing, and put them in a distinct legal categorization. This meant they were not necessarily subject to all of the same level of enforcement and regulations as other vehicles on the road regarding weight restrictions. This of course has changed within the last few years - weight and compliance are now top of mind for most hydrovac users.

With a growing awareness of damage protection, hydrovacs have become commonplace in utility and municipal industries. There are few places in the world where hydrovacs are as widely used as in Ontario, which is both an indicator of the density and complexity of our infrastructure, but also the success of organizations like the ORCGA in raising awareness and helping drive a culture of safety.

Weight Considerations for your Hydrovac:

Density and Type of Material Being Loaded and Moved

Owners and operators should consider the application of the equipment when planning for weight compliance and payload. The density of the material being moved plays a factor in how long a piece of equipment can run before reaching legal payload capacity. For example, a yard of dirt is not just a yard (weight per yard) because material density varies so widely. A yard of dry material has a significantly lower weight than a yard of wet material. A shortcoming of many traditional hydrovacs was not just the weight of the vehicle, but how they distributed the weight. In recent years, substantial work has gone into redesigning hydrovacs to consistently distribute weight properly to achieve the goal of maximizing legal payload.

Hauling Route Regulations

There are many different heavy truck compliance regulations to be aware of and follow. This can include provincial or federal laws, bridge laws, frost and thaw restrictions, vehicle classifications and many more. Not all regulations are consistent between municipalities and provinces. Be aware of the restrictions and plan accordingly.

Some areas will allow for overweight permits. These can range from job specific permits to an annual license per truck.

Gross Vehicle Weight Rating

When checking a hydrovac for weight compliance, officers will review the following: what weight is permissible based on axle locations and spacing, tire and axle ratings, the gross vehicle weight rating and

gross axle weight rating. Some jurisdictions, such as Ontario, actually dictate the percentage distribution of weight to the steering axle to ensure the vehicle is controllable under all road and weather conditions. If the allowable axle weight is exceeded, even if the load is within the regulated gross weight, an overweight fine will be issued.

Water Tank Position and Level

The water tank in a hydrovac can be in several different locations based on the model: under the debris tank, in front of the debris tank, or around the debris tank. It is common to keep a few hundred gallons of water in the tank while hauling debris to clean the unit after the debris tank is emptied. Both the position and level of the water tank can have impacts on the weight of the truck and the weight distribution.

As shifting weight and unequal distribution can create unsafe driving conditions, many jurisdictions have regulations that require a minimum percentage of weight be kept on a vehicle's front axle.

Hydrovac Weight Restrictions and Efficiency

While weight restriction compliance is a major challenge within the hydrovac community, it does not have to limit operational efficiency. By selecting the vehicle that best suits the main application or purpose of the equipment while meeting local regulation standards, payload can be maximized while avoiding costly overweight fines. Even after acquiring the right equipment, hydrovac weight compliance should be top of mind for any fleet manager or operator and something that is addressed on a job by job basis.

For more information, please contact Patrick McGee at 705.730.2021 | pat@jjei.com