

SNOW ISSUE SPURS NEW INNOVATION

By Debora Babin Katz

A **STHE OLD ENGLISH PROVERB GOES "NECESSITY IS THE MOTHER OF INVENTION." IT'S ALSO WHAT FUELED THE LATEST INNOVATION FOR CLEARING SNOW OFF FLEET ROOFTOPS CALLED TRUCBRUSH®.**

This mobile broom attachment, powered by the hydraulics of a front-end loader, quickly, effectively and safely clears accumulated snow and icy debris from the rooftops of trailers, trucks, busses, intermodal containers (including non-flat containers) and standard flatbeds. How did this mobile technology that operates under extreme cold conditions come to be?

Accumulated snow on the tops of any vehicle in transit is a significant safety concern and one that the trucking industry has been trying to address for years. In 2008 an extensive study on the snow-related issue for North America's trucking industry was performed by the American Transportation Research Institute known as ATRI. "The size and weight of ice sheets that may dislodge from larger vehicles in transit create a more significant safety concern for the trucking industry. Operational impacts from accumulated snow and ice are also possible, including size and weight limit violations and lowered fuel economy," said ATRI.

Canadian efforts to address this safety issue mirror those in the U.S., though some aspects are more progressive than the U.S. Quebec, for example, has a regulation specifically prohibiting any vehicle operator from allowing snow and ice to fall from their vehicle.

Removing snow and ice from the tops of large vehicles creates a series of safety and operational challenges however. While those who are not in the trucking industry may believe that the best solution is for the truck driver or maintenance employee to ascend to the top of a truck to remove snow, this is a highly risky method. Trailer/truck rooftops are extremely slippery surfaces which combined with high elevations and adverse weather conditions is dangerous for any person. In many cases, it can violate federal, state or provincial worker safety guidelines.

ATRI's report on the advantages and

disadvantages of methods employed by companies to try to combat snow accumulation, namely snow scrappers, throwers, truck washes, catwalks and rolling ladders, is what ultimately led our company to explore a new solution. In 2012, we

were hired by the manager of a large Boston-based airfreight company for snow management. He tasked us with finding a method to manage the largest snow-related issue in the trucking industry—the safe and effective removal of snow from

NEW! TrucBrush® Attachment



REMOVE SNOW SAFELY AND SAVE!

Eliminate the need to manually clear snow from the top of a truck, trailer, bus or container. TrucBrush® easily attaches to and is powered by a front-end loader.

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the tops of the company's fleet.

Up until then, the company's employees had spent countless hours trying to clear snow and icy debris from the fleet utilizing rolling ladders and manual labor. Safety was a primary concern, as was the lack of efficiency for the air-freight company. We identified all the issues and brainstormed possible solutions with the freight-forwarding manager. We knew that this new solution would need to be: (1) mobile and capable of being easily removed both between storms and after winter season as the airfreight company did not want a fixed system that would take up valuable space or be a potential hazard for a driver to back in to; (2) flexible enough to quickly and easily perform on various heights; (3) safer for both em-

become passionate, learn all they could, and design a solution was amazing. Not only did they come up with a solution to remove the snow, they outlined an entire safety protocol to manage the concept."

Prior to TrucBrush®, the airfreight facility would spend on average 20 man hours to clear the trucks manually of snow. Today with TrucBrush®, the entire fleet of approximately 45 trucks and trailers is done in 45 minutes. "Now the trucks were out soon after loading, while my competitors were still trying to get the snow off their trucks. It has had a huge impact on our efficiency," he said.

It takes approximately one minute to clear snow from a tractor-trailer and 30 seconds for a typical box truck. "TrucBrush® clears our intermodal contain-


snow management in-house are able to purchase or rent the mobile device, TrucBrush can also be purchased by a company's snow service vendor. "TrucBrush® is really the first device that is easily outsourced to a facility's snow service contractor," said David Kane, Operations Manager/Snow & Ice General Manager of Caruso Companies. "It is easy to operate, incredibly mobile, and quickly and effectively removes snow and icy debris from the truck's rooftop," he said. It's easy to interchange the TrucBrush® attachment for a snow pusher or bucket.

In the past, contractors could only employ manual labour, one of the most dangerous options for and a practice under scrutiny by insurance companies. "The tops of trailers are not designed to with-

stand the weight of a driver, or other personnel on top to clean the accumulated snow and ice," said ATRI.

"Furthermore, the potential for slips, falls and even death associated with individuals attempting to get to the tops of trailers covered in snow and ice to clean the trailer top far outweigh any potential benefits," they said.

Some snow contractors are utilizing TrucBrush to expand their service offerings. "I added TrucBrush® at two of my clients' distribution centers as a secondary service to my snow management contracts, which also replaced a fixed snow scraper system at one location that had been an issue for my client," said Dale DesMarais of DesMarais & Sons.

Since its inception, TrucBrush® has been recognized by the Snow & Ice Management Association (SIMA) with an Industry Commitment Award for outstanding innovation and customer service, as well as, an innovation award from the Business Association of New England (SBANE). This year, Caterpillar became a global distributor of TrucBrush® offering it through its dealer network. From necessity and a desire to combat the harsher side of Mother Nature the transportation industry is employing a newer snow technology. 



ployees and their trucks' fiberglass rooftops; and (4) fast.

The outcome of all our efforts and engineering was TrucBrush® a patented, mobile, polypropylene-bristled broom device that brushes snow off the top of a truck, trailer or bus in a minute or less and operates from the hydraulics of a front-end loader. "The whole conversation came about from a selfish standpoint, said the airfreight manager. "I needed a solution to a problem and the fact that the [TrucBrush®] team were willing to take on an unknown concept and put the time in to

ers with only a 34 second turn time per truck," said Vinny Artese of Global Terminal. "The TrucBrush has been a pivotal component to our fleet when dealing with our harsh winters," said TrucBrush customer Jarod Warsosky, General Manager of Boston Trailer. "The savings we have gained from significantly reducing down time has made this investment well worth it. TrucBrush is quick, easy and very effective. Now we can effectively clear 20 to 30 trailers in the amount of time that it would take us to shovel one," he said.

While companies who handle their