

Matthew Ritcey:
Rigid enforcement of
weight laws was eating
into the company's
profits. TruckWeight's
Smart Scale is helping
Ritcey run legal.



RITCEY & SONS

TruckWeight helps log hauler roll out of the woods and into compliance

Matthew Ritcey has been hauling stud wood out of the bush in southwestern Nova Scotia for the better part of a decade. So when Ritcey slips into the seat of his loading machine, he has a pretty good idea how much timber he can pile on seven-axle tractor-trailer unit

But nowadays, the cost of trucking is so high and enforcement so strict, gut feel or air gauges aren't good enough. "If we're overweight, the fine can eat up our profit," says Ritcey, who operates Ritcey & Sons, a family-run log truck operation in Bridgewater, N.S. "Now, with our weight tolerance gone, there's extra pressure to run legal."

For years, Nova Scotia allowed a 500-kilogram (1,100 pounds) tolerance per axle, the only jurisdiction in North America with a tolerance written into regulation. That ended on Jan. 1, 2007. Today, tolerances are left to the discretion of enforcement officers.

On a seven-axle vehicle, that's a loss of 3,500 kg, or 7,700 pounds. "If you're used to loading logs to the tolerance all these years," Ritcey says, "and you don't have a way to verify your weight when you leave the bush, you're risking big fines and safety infractions."

Ritcey deployed a wireless onboard scale called Smart Scale, an inexpensive, accurate onboard scale for vehicles with air suspensions. Made

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BENEFITS

- Low-powered radio signals transmit weight information to a handheld reader up to 500 feet away
- Wireless feature means drivers can take a measurement in the truck cab, the loading area, or wherever it's convenient
- Accurate to within 0.3% of actual gross vehicle weight
- Reduce overweight violations and time spent redistributing loads
- Intrinsically safe
- Eliminate expense and downtime associated with a hardwired scale installation
- Suggested list price of \$550 US for each sensor and \$490 for the handheld

by TruckWeight Inc., it is the only wireless onboard scale for commercial trucks, tractors, and trailers.

The payback was immediate. Ritcey averaged six overweight fines a year ranging from \$150 to \$210 each, but hasn't had one since Smart Scale was installed.

"The wireless scale not only helps us maximize our legal payload, we're more efficient than anyone else because we can easily fine-tune the load distribution," says Ritcey, who uses his Smart Scale handheld unit to check his axle weights from the seat of his loader.

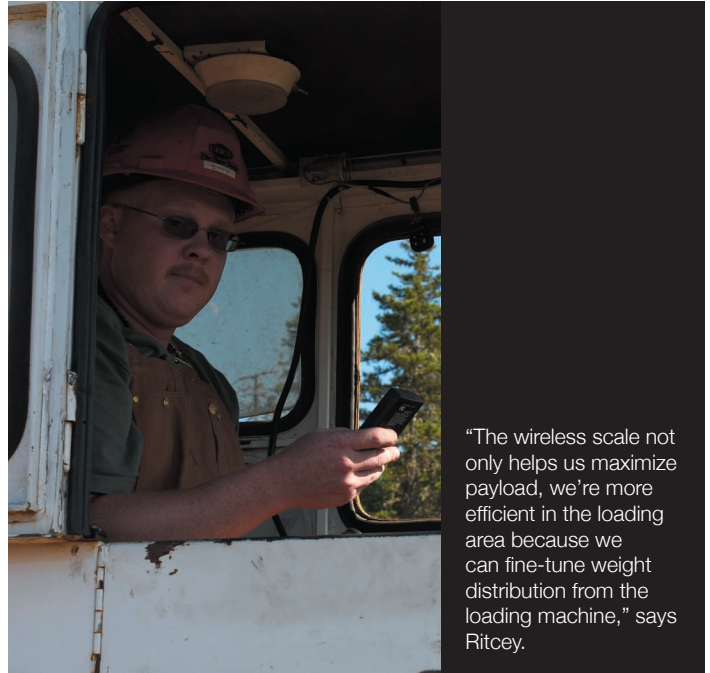
While other guys are eyeballing it and repositioning logs or sliders, Ritcey is strapping down and getting ready to go.

Smart Scale includes a sensor with an integrated antenna, DOT fittings for the vehicle's air line, and a handheld receiver. The sensor measures temperature and pressure changes in the air suspension and relays the data to the handheld receiver using a low-powered radio transmitter. A small computer in the receiver interprets the information and provides an axle weight and gross vehicle weight measurement that's accurate to within 150 pounds. It produces readings once per minute, and every three seconds during a 15-minute span when the sensors detect the truck being loaded. The sensor delivers a wireless range of 500 feet line-of-sight.

Ritcey installed and calibrated the scale himself in about 30 minutes, with no special skills or tools. "Other scales require you to run wires to a readout in the cab," he says. "It's a hassle."

Wires, cables, and electrical connections can be maintenance headaches when they're exposed to rain, snow, ice, mud, and debris, he says. Smart Scale's waterproof, weatherproof, shock-resistant, and non-corrosive housing requires no regular maintenance. The sensors are accurate in temperatures ranging from -40 F to 158 F and use common AA batteries for power.

Onboard scales are gaining in popularity for two reasons, says Peter Panagapko, president of TruckWeight. "To protect their infrastructure, states and provinces are supplementing roadside



"The wireless scale not only helps us maximize payload, we're more efficient in the loading area because we can fine-tune weight distribution from the loading machine," says Ritcey.

scale houses with portable scales they can put anywhere, even outside the gates of mills, dumps, and quarries, where truck operators probably don't have access to an on-site scale," he explains. "The second reason is the migration from mechanical suspensions to air-ride suspensions, especially in markets like forest products, refuse, steel, agriculture, asphalt and aggregates, containerized freight, and liquid and dry bulk products."

Onboard scales have been available for many years, but few truck owners want the complexity and downtime associated with installation.

"That's why we're wireless," Panagapko says. "The fast, simple, do-it-yourself installation lowers the cost of ownership and speeds up the return on investment." Smart Scale has a suggested list price of \$550 (all prices US) for each sensor and \$490 for the handheld receiver. You can equip a five-axle tractor-trailer combination for \$1,590.

For Ritcey, the onboard scale has eliminated the need for check-weighing and the time-consuming, sometimes dangerous work of repositioning logs.

"I know I'm legal because I can monitor my weight from the cab while I travel," he says. "When I go across the government scale now, I'm carrying the most payload that's legally allowed. I'm as productive as I can be." ■