



PROFILES

SMALL FLEET, SCRAP/WASTE/REFUSE

Claude Richard:
“We used to get to a point during loading and say, ‘I think you’re OK.’ Now, with our wireless Smart Scale, the loader operator can check the handheld display unit and say, ‘I have room for another tonne’ and put it on with confidence.”



LIMAR ENTERPRISES

TruckWeight helps metal recycler find profit in the scrap heap

As a scrap dealer, Claude Richard spends every day working with metal and machines. But his success depends on a human element: how effectively he and his workers manage their time and effort in the loading area.

“Most of our work involves scrap metal we crush on site, bail into 1,500-pound blocks, and haul to a shredder where it’s sold,” says Richard, owner of Limar Enterprises in Notre Dame, N.B. “It’s our manpower running the loader and driving the truck. The more efficient we can be in the loading area, the faster we can get on the road to the metal buyer.”

It’s no simple feat. Limar hauls scrap metal in eight-axle B-train doubles: a three-axle lead trailer followed by a two-axle tag trailer. At 25 meters long and a maximum weight of 62,500 kilograms (approximately 137,000 pounds), it’s an efficient combination. But getting the

weight balanced can be tricky. “Eighty percent of the places we load have a scale in the ground. But that’s not the place to learn that we’re overweight on an axle group or have less payload than we’re allowed to carry,” Richard says.

Richard’s solution is to put axle weight readings in the hand of the loader operator. Last year, he installed Smart Scale, an inexpensive, accurate, wireless onboard scale for trucks, tractors, and trailers with air suspensions.

Made by TruckWeight Inc., 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

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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

to within 150 pounds. It produces readings once per minute, and every three seconds when the sensors detect the truck being loaded. The wireless receiver has a range of 500 feet.

“When the person running the loader can check the weight of the vehicle with the push of a button from the seat of his machine, he doesn't need a second person there to check the weight on a gauge in the cab or on the side of the trailer,” says Richard. “With the handheld reader, he can check the weights himself and make adjustments as he's doing the work while the driver is performing other jobs.”

Richard installed and calibrated the scale on each combination in about an hour with no



Richard uses his Smart Scale handheld unit to check the axle weights on his eight-axle B-train. He says the wireless scale lets his crews load metal bales with precision, efficiency, and confidence.

special skills or tools. The weatherproof, shock-resistant, and non-corrosive housing requires no regular maintenance, and the sensors are accurate in temperature extremes ranging from -40 F to 158 F. For power, they use common AA batteries.

Picking up popularity

Onboard scales are gaining in popularity for two reasons, says Peter Panagapko, president of TruckWeight.

“To protect their infrastructure investments, jurisdictions are supplementing roadside scale houses with portable scales they can put anywhere. Enforcement is strict and the fines are steep,” he explains. “The second reason is

the migration from mechanical suspensions to air-ride suspensions on vans, flatdecks, logging trailers, and other trailers. Using the air system allows us to make reliable, highly accurate calculations of the weight on the axle.”

Unfortunately, the complexity and downtime associated with hardwiring onboard scales have made them expensive.

“That's why we're wireless,” Panagapko says. “The cost to equip a tractor and trailer with a Smart Scale is \$1,590 US, about half the cost of a hardwired scale when you factor in installation costs and downtime.” The simple, do-it-yourself installation lowers the cost of ownership and speeds up the return on investment.

For Richard, the real benefits are speed and efficiency in the loading zone. Whether you haul scrap, general freight, asphalt, aggregates, steel, farm products, or lumber, the guy running the loader or lift-truck may know approximately how much freight to put on the trailer. But gut-feel, air gauges, and lift-truck scales are no assurance that the truck is within a few hundred pounds of its rated capacity every time.

Richard says the TruckWeight Smart Scale helps his crew load with precision and maximum efficiency. Says Richard: “We used to get to a point during loading and say, ‘I think you're OK.’ Now the loader operator can check his handheld unit and say, ‘I have room for another tonne’ and put it on with confidence.” ■