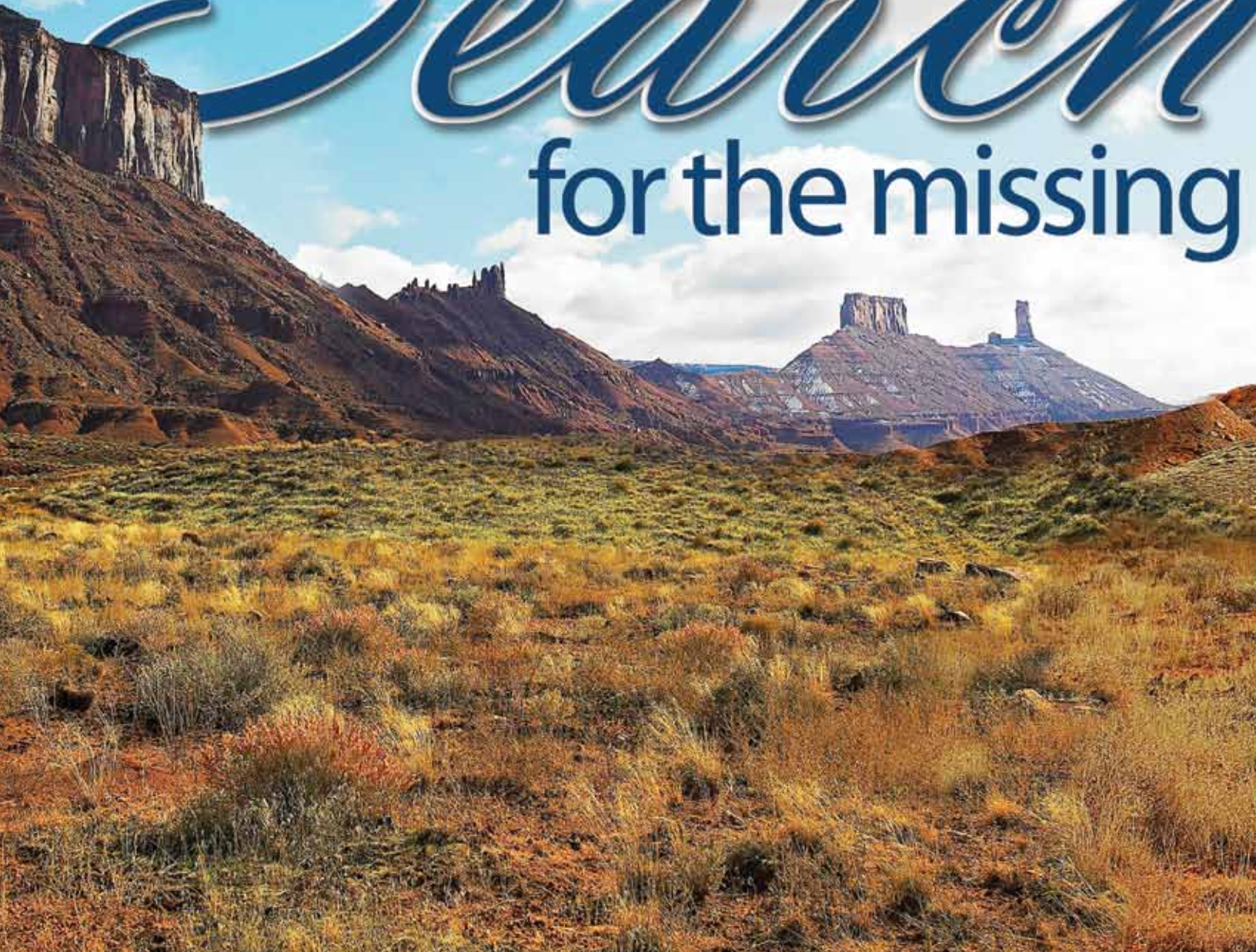


Imagine being responsible for quality control—
with newly hired packers packing thousands of car rack kits
containing dozens of parts during your busiest season.

Imagine being a customer service rep taking “missing part”
calls from people assembling their Thule car rack
for a weekend trip leaving tomorrow.

Search for the missing



John Bova, Thule quality coordinator, acknowledges, “Last year was a phenomenal year for us. We were so busy; we set all kinds of records. The size of our workforce tripled. The ratio of new people to experienced people was four to one. That brought in a whole new array of challenges for training and quality control.

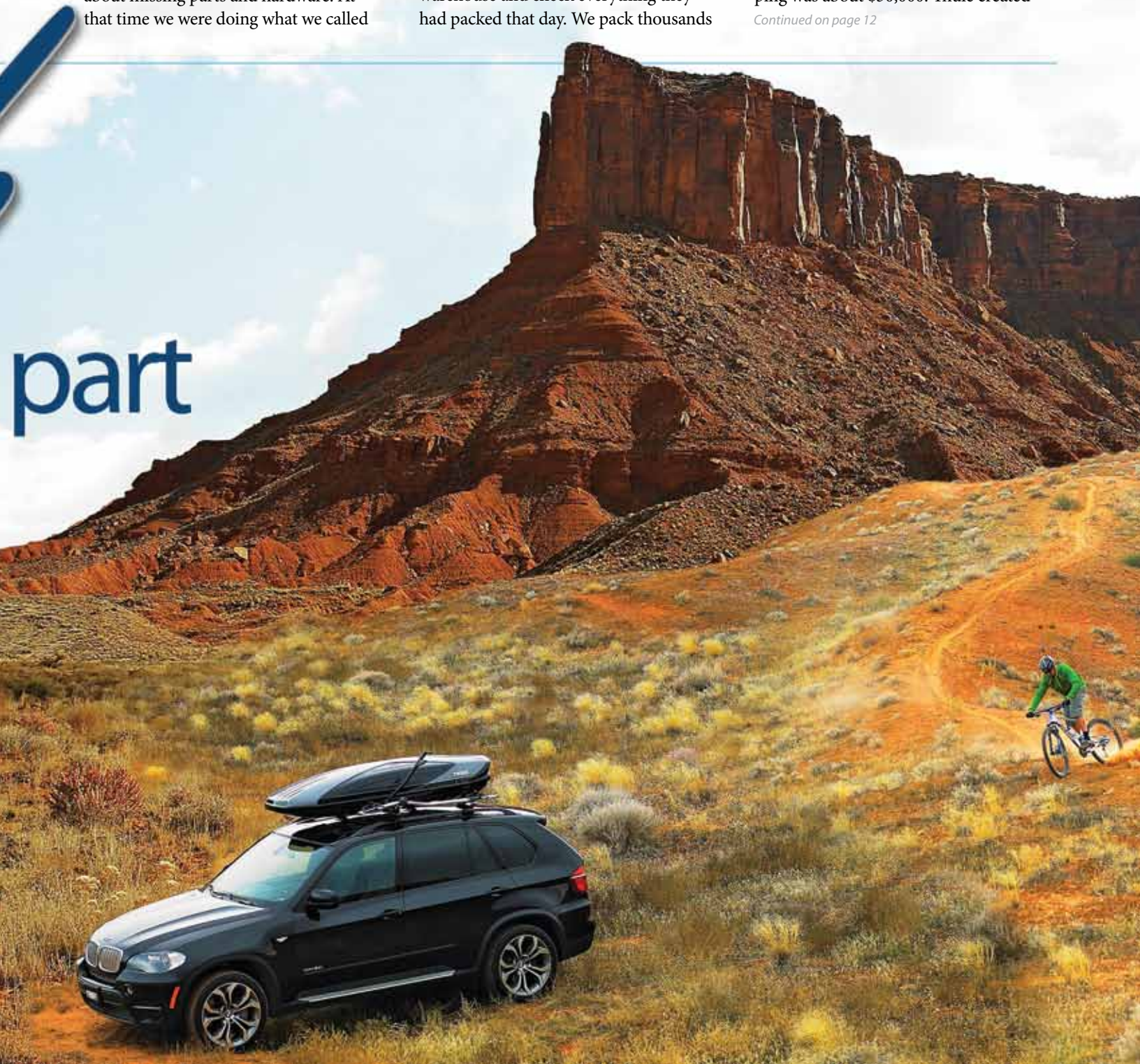
“We received complaints from customers about missing parts and hardware. At that time we were doing what we called

‘dock audits.’ We would go out to our shipping area a couple of times a day, open random boxes, see what was inside to make sure everything was there. If something was missing, packers would have to take apart the whole skid of boxes. It meant shutting down the line so they could go through every box, count the parts, re-pack and re-tape. If it was a big issue, we might ask them to go to the warehouse and check everything they had packed that day. We pack thousands

of boxes a week. So the likelihood of us finding something just by random checking was slim.”

Thule was determined to give their customers a product that presented the best buying experience. The Thule quality control group determined the cost of labor alone in one year to investigate customer complaints, find the missing part, write the order, and send to shipping was about \$30,000. Thule created

Continued on page 12



Who is Thule?

The next time you see a sleek car rack for sports gear, look for the distinctive THULE logo, pronounced "Too-lee." In 1942, Thule was founded in Sweden by the Thulin family, when Erik Thulin put his name on a Pike Trap he designed and sold in Scandinavia. By the 1960s, the company concentrated on car-related products, and the first roof rack was born. New product categories were added in the 70s, and new markets all over the world were opened.

Thule North America is headquartered in Seymour, CT—a perfect setting. Thule employees share a common bond of passion for their chosen sport. Seymour is surrounded by hilly roads along the Naugatuck River Watershed. The parking lot is filled with small, smart cars bristling with racks and carriers.



"Fifteen or more people will go out for a noon ride. Most of our rides are ten to fifteen miles. Some people take an hour; some can do it in thirty minutes. And we have lots of people who do marathons and triathlons."

"I think the gas crunch gave our business a boost. People are buying smaller cars so they need racks and rooftop carriers. People are taking shorter trips by car and longer trips by bike, canoe, and kayak."
John Bova



We are an international group of passionate people who help active families, outdoor enthusiasts, and professionals find safe, easy, and stylish ways to transport their gear. Working for Thule is more than just a job. Our employees live an active lifestyle and bike, ski, run, hike, sail, and camp—on their own or with colleagues at Thule supported events.

Connecticut is biking beautiful

The state extends 90 miles (145 km) from east to west and 55 miles (90 km) from north to south. The state is divided into two sections, the eastern highland and the western highland, which are separated by the Connecticut Valley lowland. In the south, low rolling coastal plain leads to the Connecticut shore and the famous bike trails along Long Island Sound.

Search for the Missing Part continued from page 11

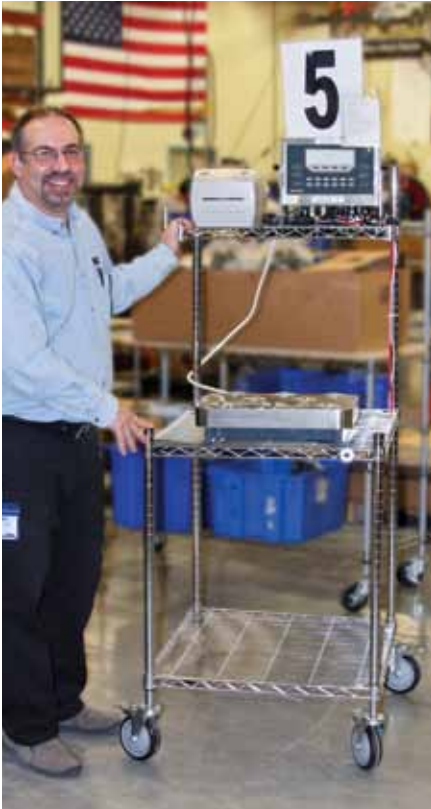
some unique package-identifying procedures to reduce costs but were still not satisfied.

John Bova's team decided to look into a checkweighing system that would also record product ID for traceability. John Russo, Jr., integration specialist with Progressive Scale & Software Solutions, Bethel, CT., designed the first system using four scales running off the 920i*. John Bova says, "We tried that for about six or eight months to work the bugs out. During the six months prior to installing the system, we found 120 boxes with missing parts. Once the system was installed, the drop in missing part complaints was immediate. After we tested it, my plan was to spread the application through the entire plant, and I had a year to put together the plan, get capital funding, and marshal equipment."

Thule corporate folks interviewed the distributors and end users at trade shows. When asked about product concerns, the most outstanding complaint involved missing parts in packages. Several distributors objected to the cost for them to replace the part and meet customer deadlines. The package checkweighing



John Russo, Jr., improved on the first 920i-based system. "To reduce cost, I used 720i's. Now the user can checkweigh and see the actual results." Operators can now enter a comment recording what was wrong or missing.



“All the cell leaders can change jobs; these 720i systems can be rolled to where they’re needed. It’s a great benefit to have the display right in front of them.”

John Bova,
Thule quality coordinator



Smoothing the Road: RoughDecks® checkweigh Chryslers

In 1920, Walter P. Chrysler teamed up with three ex-Studebaker engineers to design a revolutionary new car. They defined the Chrysler brand as affordable “luxury” vehicles known for innovative, top-flight engineering. Within a decade of its founding, Chrysler Corporation had earned the title of Detroit’s “engineering company.” Their automotive firsts included Floating Power (a new method of mounting engines to isolate vibration), replaceable oil filters, downdraft carburetors and one-piece curved windshields. For years, Chrysler enjoyed a premium luxury position competing with Cadillac and Lincoln.

Following Fiat’s acquisition of a 20% stake in Chrysler LLC, Fiat declared their plan to return the brand to an upmarket marque and launched their marketing slogan—*Imported from Detroit*. One example of that return to top-flight engineering and luxury is a smooth, quiet ride. Toward that end, Ron Little, Kanawha Scales, Michigan, has devised an unusual application of RoughDecks.

The system consists of four pit-style RoughDecks® and a 920i dual channel indicator that is set up in Chrysler’s “customer satisfaction audit area” at the auto manufacturing plant in East Detroit. Ron explains that during each shift, twenty cars are “audited” by being driven over the four scales. The driver gets out and scans the VIN number sticker into the 920i. The system weighs each wheel, records the individual wheel weight, combined weight, time and date. The information is then passed on to each local plant and then on to corporate over Chrysler’s dedicated server. The whole process takes about 30 seconds. Kanawha installed the first test system in 2008. After several months of testing, Ron has installed several more systems in Chrysler plants in the U.S. and Canada. ■

solution became an obvious answer to the problem. Checkweighing 100% of the packages makes the best buying experience for Thule customers.

“Corporate had been thinking of systems to ID product for traceability, and we were already on it from the checkweighing for missing parts.” Representatives from the corporate office in Sweden came out, looked at the solution, and wanted it duplicated. “They’re talking about all the products and plants. In October we’ll do Chicago, then Florida, then Massachusetts, then Europe.”

John Russo, Jr., improved on the first 920i-based system in the second build. “To reduce cost, I used 720i’s instead of the 920i. Now the user can checkweigh and see the actual results whereas we were just running a light box with a remote 920i. When there is an error, the operator can enter a comment to record what was wrong and which part was missing.” The first system John designed was hard-wired. But because of the way Thule constantly

changes their packing areas, this second system has evolved into 16 wireless 720i units networked back to a computer running MS SQL Server 2005 Express Editor. The units can be rolled to any work cell as needed. John is working on an even more sophisticated system which will include negative weighing—checking to see if the operator took a part from a bin.

John Bova is pleased. “All the cell leaders can change jobs; these 720i systems can be rolled to where they are needed. It’s a great benefit to have the display right in front of them. I can monitor the whole system at my desk and pull up all the scales or any one scale and monitor to read the comments in real time. If I see a lot of errors, I can go and investigate what may be going wrong; maybe they’re putting in the wrong hardware bag or maybe they changed cartons.”

When you assemble your car rack from Thule, they want you to be completely satisfied. It’s part of the Thule experience from start to the finish line. ■