



# Proven. Like No Other: Western Star Puts Next Generation Truck Through Hell

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**PORTLAND, Ore. – Sept. 1, 2020** - Western Star's all-new vocational truck is set to be the toughest Western Star yet after being subjected to the extreme and grueling testing conditions designed by the Product Validation Engineering (PVE) team of Daimler Trucks North America (DTNA). When it arrives, the next Western Star will have the undisputed honor of being the most tested truck in Western Star's history.

Born on the backwoods logging roads of British Columbia, Western Star trucks have a storied reputation for delivering tough, dependable reliability for the most demanding of vocational tasks. Supported by the global engineering of Daimler Trucks and state-of-the-art testing facilities of DTNA, the next Western Star is set to carry the brand's legacy forward.

"Vocational customers work in the most challenging environments in the world; places where durability and uptime are crucial," said David Carson, senior vice president, Vocational segment, DTNA. "We have put the next Western Star through its paces to ensure this truck surpasses their expectations. We have a hard-earned reputation for dependability, for reliability, and for toughness that our customers know they can count on when they get to the job site and on the journey there. And we have delivered for them."

## **Un"shake"able Composure**

The structures lab at DTNA houses both full vehicle and cab-only shaker tables to accelerate durability testing and find breakage in the lab, years before vehicles get to testing on the road or in the field. Capable of violently manipulating the vehicle on both X- and Y-axes to simulate a lifetime of extreme use in customer hands, the shaker tables can replicate approximately 1 million miles of real-world use in under two months of testing in the lab. For a vocational truck, the validation of the next Western Star's cab and chassis components started early in the development process and yielded new, internal standards for durability.

For different loading conditions, a 'bed plate' test simulated extreme maneuvers on the chassis and specific components to ensure full capability, while a 'frame twist' test cycle was repeated 10,000 times to provide a solid foundation for the new truck and make sure it could withstand the rigors of the toughest vocational operating environments regardless of application or body equipment installed.

In order to match the unyielding strength and durability requirements with a maximum focus on driver safety, the PVE team at DTNA destroyed numerous cabs with multiple cab crushing tests. The pendulum test imparted force to the top corners of the cab while the roof strength test applied extra force to the roof to exhaust its strength. Both tests yielded invaluable test data for the new, lighter cab design to ensure it matched and surpassed the performance of other Western Star trucks. Cab impact tests are conducted while the trucks are equipped with a number of sensors and cameras to collect 200 unique data points, all of which are used to deliver safety-focused vehicles to customer fleets and their operators.

## **Tough as Nails**

DTNA's High Desert Proving Grounds in Madras, Oregon lies 120-miles southeast of DTNA's Portland headquarters. At an elevation of 2,390-feet and with 10,000-foot tall peaks within a 50-mile radius, the high desert of central Oregon lets engineers test in snow, rain, and blistering heat during the summer months.

Expanded in 2017 with an investment of \$18.7 million, the 87-acre High Desert Proving Grounds offers a test loop of three and a half miles that allows engineers to simulate and compress a typical vehicle's full service life into as little as seven months. The tailored road surfaces of the Proving Grounds provide a high fidelity test track for the engineers and technicians. Unique for vocational applications, the punishing logging roads of northwest Canada where Western Star was born and where customers continue to operate in an unforgiving wilderness, were replicated at the track, allowing engineers to test against exactly the same road types traversed by customers in the harshest conditions. This allows the engineers to learn from the responses of the truck, discover issues further in the validation process, and fix them at a 14-bay development facility on-site. After which, they repeat testing to ensure that the next Western Star earns the right to wear the Western Star badge.

### **The Next Chapter is Right around the Bend**

These tests represent a few highlights of the full testing regimen to which the next Western Star was subjected. They are essential steps in bringing the truck to market to ensure, when it is needed most, the Star shines bright on the job site. The world will get its first look at the all-new Western Star on September 29, 2020.

To learn more about this and the complete lineup of Western Star trucks, visit [westernstartrucks.com](https://westernstartrucks.com)