
Engineering, Advanced Materials Help Slim Down Colorado

2014-03-11

- **New midsize pickup is 880 to 1,400 pounds lighter than full-size pickups**
- **Lightweight high-strength steels, aluminum, play key roles in mass reduction**

DETROIT – Proving there is more than one way shed pounds, the 2015 [Chevrolet Colorado](#) uses engineering techniques and lightweight materials to create true [pickup](#) capability in a mass-efficient midsize package.

The 2015 Colorado 4x4 crew cab, expected to be the most popular version of the new trucks, weighs 880 to 1,400 less than a full-size truck.

This weight saving is a result of the slightly smaller overall dimensions of the Colorado, along with extensive use of lightweight materials, including high-strength steels and aluminum. The outcome is a truck designed to be the most fuel-efficient in its segment. Chevrolet expects EPA fuel economy estimates for Colorado this summer.

The Colorado will begin arriving in showrooms this fall at the same time as the new Ford F-150, setting up a sharp contrast between two strategies for reducing the weight of pickups.

“When it comes to building lighter pickups, there is more than one answer,” said Jeff Luke, executive chief engineer. “Building on our experience with the new Silverado, we engineered the Colorado to be highly mass-efficient, while still providing the performance, capability, dependability and features that midsize truck customers are asking for.”

Efficient size that’s right for many customers

In overall size, Colorado fits neatly below the [Silverado 1500](#) in the Chevrolet lineup. The short-bed crew cab is 212.76 inches long, 17 inches shorter than a comparable Silverado 1500, making it an easier fit in many garages.

Colorado’s overall width of 74.3 inches is five inches narrower than Silverado and two inches wider than the [Equinox](#), providing easier maneuverability around town with a surprisingly spacious interior.

This slightly smaller package comes with real muscle, though. Based on GM’s latest testing, Colorado is expected to lead the midsize segment with up to 6,700 pounds of available towing capability.

“For many customers, a midsize pickup is simply a better solution,” said Luke. “You get the versatility and capability of a truck in a package that is fun to drive and easier to maneuver and park.”

“Colorado will meet the unique needs of midsize pickup customers, while also providing an attractive, cost-effective alternative for anyone seeking a more fuel-efficient pickup.”

Intelligent use of lightweight materials

In creating Colorado, GM engineers chose materials that would make the most of the strength, safety and refinement of the truck, while balancing dependability and cost of repairs and total ownership.

Like Silverado, Colorado extensively uses lightweight, high-strength steels. Fully boxed frames formed primarily from high-strength steel reduce weight and increase stiffness for a quieter ride and better handling.

Key areas of the body structure also benefit from high-strength steels, reducing mass and enhancing strength and safety. Overall, about 71 percent of the body structure is comprised of high-strength steels.

The pickup box consists of roll-formed steel, which is lighter and stronger than traditional stamped steel.

Major aluminum components include the hood, front steering knuckles, and cylinder heads and engine blocks for both the 2.5L four cylinder and 3.6L V-6. Reflecting the attention to weight savings found throughout the Colorado, the aluminum heads for the V-6 feature integral exhaust manifolds, which save about 13 pounds over traditional cast-iron manifolds.

The front of Colorado features a composite grille opening reinforcement with active shutters that seals the front of the truck, reducing aerodynamic drag and improving cooling performance. Another weight-saving feature, electric power steering, also helps improve steering assist for easier maneuverability in tight situations.

Because of its mass-efficient design, Colorado engineers skipped the cost and complexity of turbocharging Colorado's four-cylinder and V-6 engines.

In addition to the lightweight aluminum cylinder heads and blocks, both engines feature direct fuel injection and continuously variable valve timing for better performance and more-efficient operation. Based on current GM testing, the standard 2.5L four is estimated at 193 horsepower, while the available V-6 is estimated at 302 horsepower.

Because customers seeking a lighter truck shouldn't have to compromise on Chevrolet's legendary dependability, both the Colorado and its engines have been tested and validated to the same tough standards as the full-size Silverado.

Mass comparison, 4x4 crew cabs

	Curb wt., Lbs.	Difference
2015 Colorado short box crew 4x4, 3.6L V-6	4,329	
2014 Silverado 1500 short bed crew 4x4, 5.3L V-8	5,218	889
2014 Nissan Titan short bed crew 4x4, 5.6L V-8	5,300	971
2014 Ram 1500 short bed crew 4x4, 5.7L V-8	5,341	1,012

2014 Ford F-150 short bed crew 4x4. 5.0L V-8	5,586	1,257
2014 Ram 1500 short box crew 4x4 3.0L diesel V-6	5,633	1,304
2015 Toyota Tundra short bed crew 4x4, 5.7L V-8	5,760	1,431

Source: *Manufacturer press releases*

About Chevrolet

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