

Updated Aerodynamic Improvements

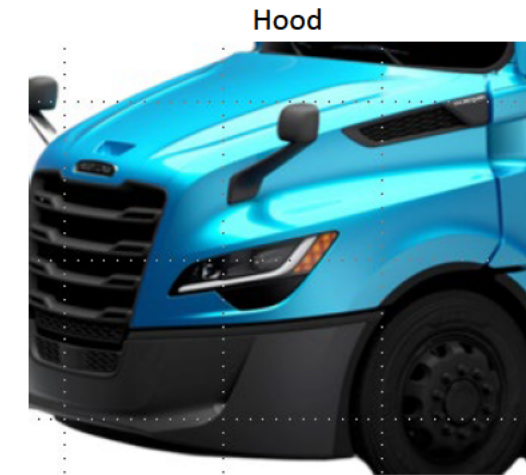
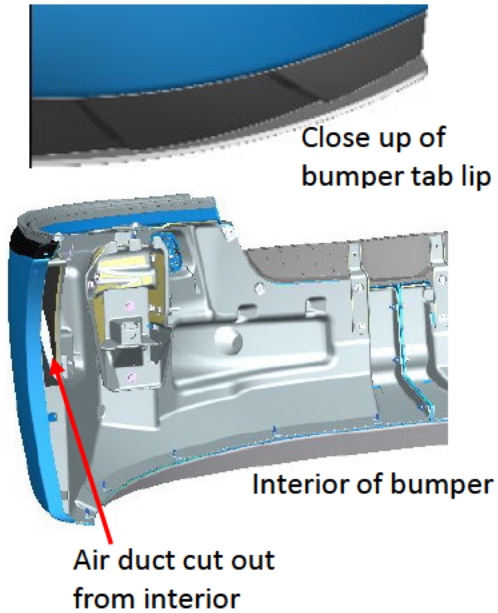
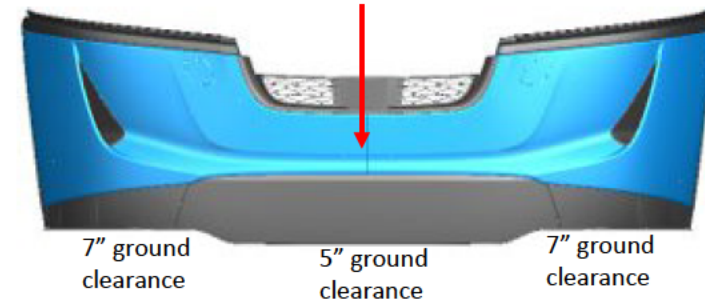
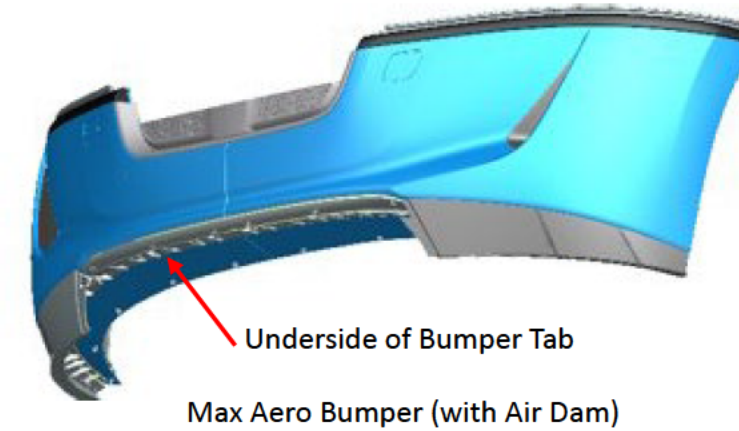
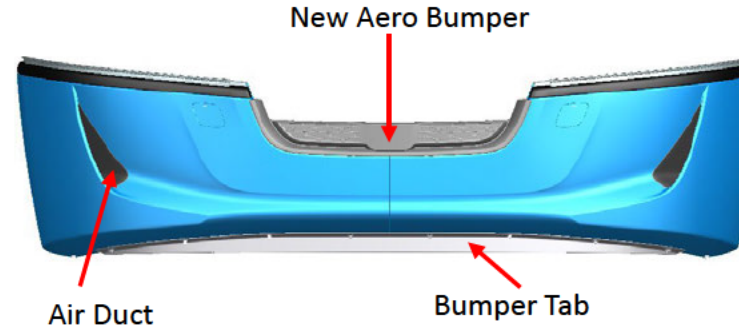


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What is it?

Through all iterations of the Cascadia, efficiency has remained a key pillar with an over 35% fuel efficiency improvement since the first generation was introduced in 2007. The legacy continues with the fifth generation Cascadia, including enhanced aerodynamic features designed to optimize air flow around and under the vehicle for reduced air drag, resulting in a 1.9% improvement in fuel economy compared to the previous generation.

- A newly redesigned standard **bumper**, featuring **all new air ducts**, which help guide air from the front and around the tires to reduce drag for improved fuel economy. These new air ducts also direct air to provide cooling to the brakes, helping them maintain optimal temperature.
- The all-new optional **Max Aero Bumper** not only includes the new air ducts designed into the standard bumper, it features a newly-designed **air dam** mounted to the underside of the bumper. This air dam is designed to prevent airflow from getting into the underbody of the truck along with protecting components from high-speed air and/or debris. The new **air dam** has an improved ground clearance profile of 7"–5"–7" and has also been updated with a three-piece easy snap enclosure system for easy serviceability, keeping costs down by only needing to replace the damaged section and by providing ease of removal and access to the underbody. The **bumper tab** on the underside of the bumper prevents the airflow from getting in the truck underbody area where it hits components. This design reduces the drag force created from underbody airflow. This new **bumper tab** is full length and one inch larger on the underside than the previous iteration. It is a separate piece, making it easier to service.
- A newly designed **hood** features enhanced styling lines and houses the new design for the Dual Stage Intelligent LED Headlights along with the addition of the third piece of the wheel well closeout.



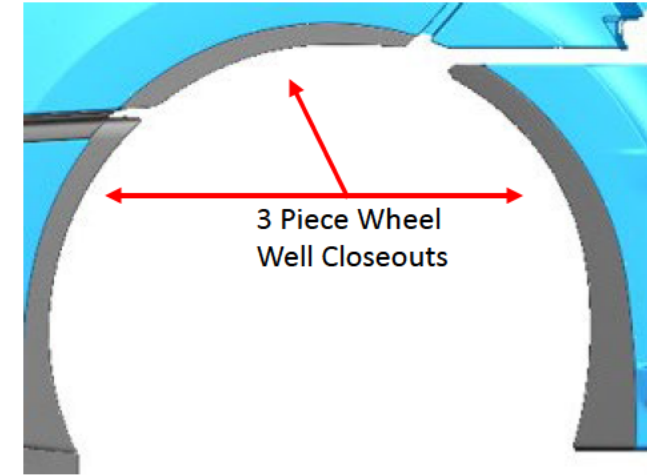
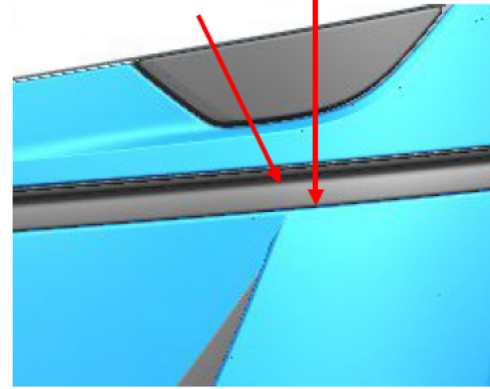
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- The new hood-to-bumper seal closes the gap between the hood and bumper, improving airflow around the cab. The two-piece design has one seal mounted to the hood and the second attached to the bumper. The hood-to-bumper seal is made from a durable and versatile synthetic rubber material designed to ensure the seal doesn't wear or rub when the hood is open or closed.
- The grille has also been redesigned with a sleek and modern look, while continuing to provide the same surface area for under hood cooling and protection while maintaining its durability compared to previous iterations. The grille is available in two new trim options, professional trim with standard black finish and elite exterior with matte silver inserts.
- The newly designed three-piece composite wheel well close out system features a hood-mounted attachment in addition to the existing bumper and chassis fairing-mounted pieces. These work to reduce tire wake, drag and prevent air turbulence in the wheel well, optimizing fuel economy.
- The Cascadia's A-pillar deflector was redesigned to be longer in length and feature wider flaring at the bottom to not only further improve fuel economy, but also reduce wind noise for improved driver comfort, and better visibility by decreasing soiling on the windows and mirrors.

Why is it important?

Freightliner continues to lead the industry in advanced technology and products to provide fuel efficient solutions to customers. Since its introduction to the market in 2007, the Cascadia has improved fuel efficiency by over 35%. With continued innovation and the introduction of industry leading aerodynamic components, the Cascadia was designed to maximize fleet profitability. With this newest generation of the Cascadia, we identified even more ways to not only improve fuel efficiency, but also driver visibility and comfort, and durability.

Hood-to-Bumper Seal



Black Grille

Black Grille
with
Matte Silver Inserts

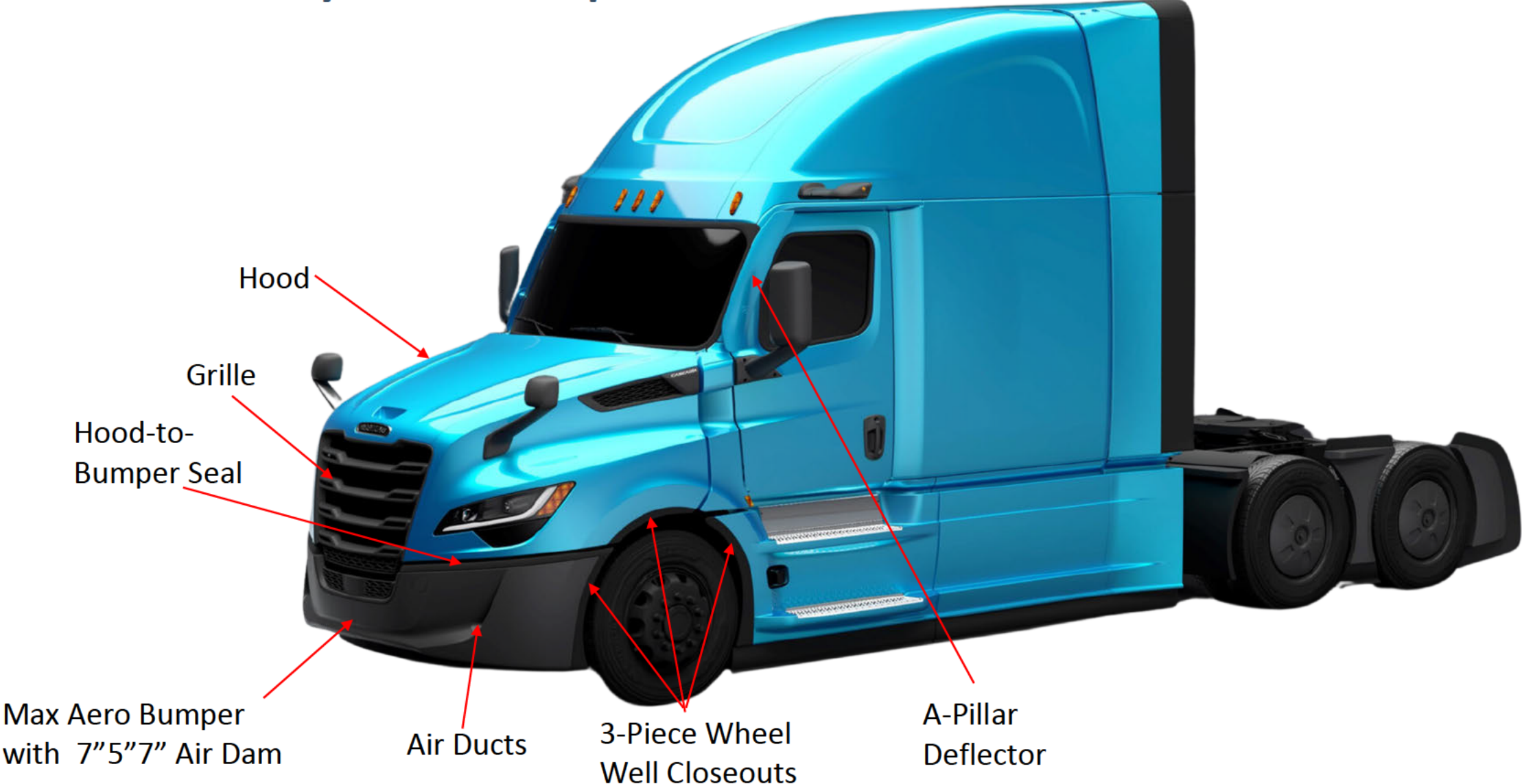


A-Pillar
Deflector

5th Gen

4th Gen

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Key Features:

- Introduction of air ducts in the bumper to help guide air flow around the truck, eliminating drag, while maintaining optimal brake temperature
- Newly designed Max Aero bumper includes an air dam with an improved ground clearance of 7"5"7", not only providing greater efficiency, but also protecting underbody components and improving durability due to its three-piece design with snap enclosures
- Updated hood and modern grille design
- New 3-piece wheel well closeout system (bumper, side chassis, and now hood mounted pieces) eliminate drag from the wheel well
- Updated A-pillar deflector for better fuel efficiency, soil management, and visibility
- Hood-to-Bumper Seal to close the gap between the hood and bumper to redirect airflow

Resources: [Highspot](#), [Fifth Generation](#) | [Efficiency - Cascadia Aerodynamics](#) | [Freightliner \(highspot.com\)](#)

Affected models: 5th Gen Cascadia, C/O MID 2025

Data Codes:		
Hood:		
644-076	FIFTH GEN CAS AERODYNAMIC HOOD	Standard
Grille:		
646-049:	BLACK GRILLE W/ MATTE SILVER INSESTS	Optional
646-050:	BLACK GRILLE W/O MATTE SILVER INSERTS	Standard
Bumper:		
556-153:	PAINTED AERODYNAMIC BUMPER WITH AIR DUCTS	Optional
556-154:	SOLID GRAY AERODYNAMIC BUMPER WITH AIR DUCTS	Optional
556-155:	SOLID GRAY MAX AERO BUMPER WITH AIR DUCTS AND AIR DAM	Optional
556-157:	PAINTED MAX AERO BUMPER WITH AIR DUCTS AND AIR DAM	Standard
Wheel Well Closeouts:		
75X-002:	AERO THREE-PIECE WHEEL WELL CLOSEOUT	Standard*
A-Pillar Deflector:		
777-005:	EXTENDED A-PILLAR DEFLECTOR	Standard
*Compatibility	*Wheel well closeouts are only available with compatible tire sizes. See SpecPro for current list of sizes.	

