Engineering in an Iconic Air Vehicle: Hutchinson Components in the Boeing CV2 CAV

Hutchinson Aerospace rings and bushings are manufactured for use within the Boeing CV2 Cargo Air Vehicle—connecting Hutchinson engineering to a notable chapter in aerospace innovation.

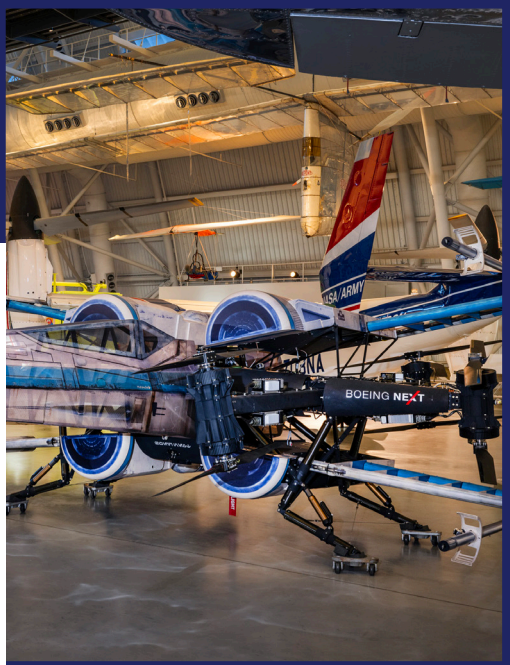


Photo Credit to: Smithsonian's National Air and Space Museum, Mark Avino.

A Boeing aircraft now in the Smithsonian's National Air and Space Museum has a connection to Hutchinson Aerospace: Hutchinson rings and bushings are manufactured for use within the Boeing CV2 Cargo Air Vehicle (CAV).

The aircraft drew widespread attention for an unusual mission. According to a May 3, 2024, news release from the Smithsonian, Boeing partnered with Walt Disney Imagineering Research & Development to mount X-wing body shells on two CV2 CAVs for opening events associated with Star Wars: Galaxy's Edge at Walt Disney World in Orlando, Florida. The X-wing-outfitted CAV subsequently became part of the collection of Smithsonian's National Air and Space Museum.

The story behind the aircraft extends well beyond its distinctive appearance. The Smithsonian reports that Boeing began developing its all-electric, uncrewed CAVs in 2017. Designed to carry 225 kilograms, or 500 pounds, of cargo, the aircraft served as testbeds for exploring advances in batteries, electric propulsion and autonomous flight.

In December 2019, two X-wing-outfitted CAVs flew over Walt Disney World during an event tied to the attraction. The Smithsonian notes that ultraviolet spotlights illuminated the aircraft, so spectators primarily saw the X-wing frames in the night sky.

The CAV acquired by the museum represents another milestone as well. According to the Smithsonian, it was the first remotely piloted large electric vertical takeoff and landing aircraft flown in support of a commercial operation in the U.S. The aircraft has a wingspan of 20.2 feet and uses 128-kilowatt direct-drive electric motors.

Within the Boeing CV2 CAV, Hutchinson Aerospace rings and bushings demonstrate how engineered components can contribute to complex aerospace platforms. Hutchinson's connection is specifically to the manufacture and use of these components within the CAV; Hutchinson did not participate in the X-wing project itself.

For aerospace engineers, OEM teams and program managers, applications such as the CV2 CAV reflect the breadth of engineering required to bring advanced aircraft concepts from development into operation. Hutchinson Aerospace supports that broader engineering landscape with components and solutions developed for demanding aerospace applications.

The X-wing-outfitted Boeing CV2 CAV was gifted to Smithsonian's National Air and Space Museum by Boeing and Walt Disney Imagineering Research & Development. The Smithsonian announced that the aircraft would join the vertical flight collection at the museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia.

For Hutchinson, the aircraft provides a distinctive example of where its aerospace components can be found: within an innovative Boeing platform that has since become part of a national aerospace collection.

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