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# PRESS RELEASE

## **CUBCRAFTERS DEBUTS NEW CC393i POWERPLANT FOR XCUB**

## **Collaborative Project with Lycoming and Hartzell**

**Yakima, Washington – July 10, 2019**: CubCrafters is upgrading its industry leading personal adventure aircraft, the XCub, with a new firewall forward package, including a much more powerful engine and propeller combination developed in cooperation with key industry partners.

FAA certified in 2016, the XCub is lighter, stronger, and faster than any aircraft in its category. Combined with a larger payload and greater range, these attributes fulfill a wider mission profile than any other comparative aircraft in this class. The new firewall forward package being offered expands the capabilities of CubCrafters' flagship aircraft even more.

Dubbed the CC393i, the new lightweight fuel injected engine develops more than 215 HP, but adds only 10 pounds to the aircraft's overall empty weight when compared to similar legacy fuel injected 180 HP engine options. Developed as part of a growing collaboration between CubCrafters and Lycoming, the new CC393i engine is only available from CubCrafters and offered exclusively on the XCub.

"The opportunity to work together with Lycoming to develop this new, high-power and lightweight engine for the XCub has been truly inspiring. The CC393i, with its advances in technology and materials, absolutely delivers on the high performing adventure that we are dedicated to bring to our customers," shared Patrick Horgan, CubCrafters president.

A newly developed lightweight composite, three-bladed, constant speed propeller called the 'Pathfinder' will also be first launched by Hartzell Propeller as part of the updated firewall forward package for the XCub. With both updated aerodynamics and internal structure, the new propeller is quieter, smoother, and optimized for back country operations.

"From its inception, our XCub development team set out to design a modern Cub with terrific STOL capabilities, like our LSA Carbon Cub, but one that could travel faster and farther, while accommodating all of the gear that a pilot and passenger might want to carry for an extended adventure" recalls CubCrafters founder Jim Richmond. "Now, after having met that goal, we have refined the design for even more performance and capability."

This new firewall forward package features many of the same improvements that were first introduced on the massively popular CC363i engine that is offered exclusively on the 3<sup>rd</sup> generation of CubCrafters experimental Carbon Cub aircraft, the EX-3 and FX-3.

Horgan explains: "With the CC363i, we started with the combination of a lightweight 180+ horsepower engine with dual electronic ignition, fuel injection, and a high performance Hartzell composite constant speed propeller. Our design team integrated the entire engine and airframe package using our own inhouse expertise, computational fluid design tools, and considerable testing to optimize both induction airflow and cooling with spectacular results." He continues that, "now we are doing the same with this new 215+ horsepower Lycoming CC393i engine and the new Hartzell Pathfinder propeller; we're giving the XCub a huge performance boost, just as we did for the experimental Carbon Cub in 2017."

Key components of the new CC393i engine include new lightweight magnesium parts such as the accessory case, oil sump, and a new innovative lightweight magnesium cold air induction system. In addition, standard equipment includes fuel injection, a high-performance ignition system, a lightweight Sky-Tec starter, and lightweight alternator options. To house the CC393i, a new larger cowling with better aerodynamics was designed. Cooling airflow for the engine is improved by a new lightweight composite baffling system, and a new exhaust system is designed to increase power while scavenging more heat than ever before for the XCub cabin.

"I'm very excited to be able to introduce this new powerplant combination to our customers" says CubCrafters Vice President of Sales and Marketing, Brad Damm, who has flown behind the new CC393i engine extensively during its testing and development phase. He comments that, "This is the highest horsepower engine CubCrafters has ever offered and it doesn't disappoint. The acceleration is exhilarating. The takeoff and climb are impressive, even by CubCrafters' high standards."

CubCrafters notes that the XCub was always intended to be more than just a new airplane; it was designed right from the start as a platform upon which new technologies and different configurations can be offered to fulfill different missions. The company says that the new CC393i engine opens a host of new possibilities for the airplane.

The new Lycoming CC393i engine and Hartzell Pathfinder propeller combination will be displayed as part of CubCrafters' AirVenture 2019 exhibit at Booth 273/274, and is an option for new XCub orders with delivery in 2020 and beyond.

#### **ABOUT CUBCRAFTERS**

CubCrafters, founded in 1980 by current owner and CEO, Jim Richmond, is located at McAllister Field Airport (YKM) in Yakima, WA. CubCrafters' roots are in the 70-year history of classic taildragger aviation, but its products and services are innovative and completely modern.

CubCrafters designs and manufactures Experimental, Light Sport, and FAA certified Part 23 aircraft. The Top Cub, with a useful load of over 1,000 lbs., is the most up-to-date iteration of the historic Super Cub available. Now in its 3<sup>rd</sup> generation, the Carbon Cub family has redefined expectations for backcountry aircraft with light weight, powerful engines, and breathtaking performance. The flagship XCub substantially expands the mission profile of Certified personal adventure aircraft with its higher speed, longer range, and larger payload. The company's newest introduction, the 215 HP CC393i engine further advances XCub performance.

For more information, visit www.CubCrafters.com

#### FOR RELEASE 12 A.M. EDT (4 A.M, GMT), JULY 10, 2019



## **CUBCRAFTERS CC393i SUPPLIMENTAL FACTS:**

- The new CC393i is likely the lightest certified 215 HP class aircraft engine in history. (the Franklin 220, 350 cu.in. & 2800 rpm, is 3 lbs. heavier.)
- The CC393i adds 35 additional horsepower with an installed weight on the XCub which is within 10 lbs. of a legacy IO-360 engine.
- XCub has gained a 17% increase in thrust with the CC393i powerplant, while the empty weight of the aircraft has only increased by 2%.
- The thrust to weight ratio of an XCub equipped with the new CC393i powerplant is virtually identical to the thrust to weight ratio of a 3<sup>rd</sup> generation Carbon Cub.
- The CC393i (215 HP) supplies 19% more horsepower than the O-360-C1G (180 HP), while only consuming approximately 8% more fuel at peak/best power.
- Lycoming and Hartzell each currently supply new engines and propellers for newly manufactured CubCrafters aircraft and kits every 2.5 days, on average.
- The CC393i is an exclusive CubCrafters engine manufactured by Lycoming, and CubCrafters is the exclusive launch partner for the Hartzell Pathfinder Propeller.

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## **CUBCRAFTERS CC393i SPECIFICATIONS**

CC393i CUBCRAFTERS EXCLUSIVE CERTIFIED PISTON ENGINE		
Aircraft Type	CubCrafters CC19-215 XCub	
Features	Engine Assembly	Lycoming
	Power Chassis Parts Manufacturer	Lycoming
	Accessory Case	Lycoming – Magnesium Casting
	Cold Air Induction System	Lycoming – Magnesium Casting
	Oil Sump	Lycoming - Magnesium Casting
	Maximum Continuous Power	215 HP
	Maximum RPM @ Full Power	2,700
Specifications	Recommended TBO (hours)	2,200
	Crankshaft	Counter-Weighted
	Cylinders	Quantity 4, Angle-Valve
	Bore (inches)	5.319
	Stroke (inches)	4.375
	Compression Ratio	8.9:1
	Engine Mount	Conical
	Oil Capacity (quarts)	7
Fuel System	Approved Fuel	100LL, 130
	Induction Plenum	Horiz. Tuned Magnesium
	Fuel Injection	AVStar , LFC-10AD2
Propeller	Туре	Constant Speed
	Prop Governor	Front LH
	Bushings (prop bolt size)	1/2-20 UNF
	Propeller Drive	Clockwise, 1:1 Ratio
Operating Limits	CHT – (Normal, Maximum)	320° - 380°F, 465°F
	Oil Temp (Normal, Maximum)	165° - 200°F, 235°F
	Oil Pressure (Take-off Max, Max Op., Min, Idle)	115, 95, 55, 25 (psi)