



## **Parker Chosen to Develop Hydraulic and Fuel Systems for New Bombardier CSeries Aircraft**

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CLEVELAND, Sept. 4 /PRNewswire-FirstCall/ -- Parker Hannifin, the global leader in motion and control technologies, today announced that its Parker Aerospace segment has been chosen by Bombardier Aerospace to design and produce the fully integrated hydraulic and fuel systems for its new CSeries family of aircraft. The company estimates that the contracts will generate approximately \$1.2 billion in revenues over the life of the program.

"We are proud to support Bombardier Aerospace and this exciting new program," said Bob Barker, president of Parker Aerospace and executive vice president and operating officer of Parker Hannifin. "We have been providing Bombardier with system solutions for over a decade, supporting the Global Express, Q400, and CRJ platforms. We look forward to working with this important customer on the new CSeries aircraft. What's more, these significant contract wins will contribute to Parker's continued growth."

### Fuel system

Parker Aerospace's fluid management and control systems organization in Irvine, California, will design the fuel system for the CSeries aircraft. Product design and manufacture will be completed by Parker's Air & Fuel Division, Electronic Systems, and Nichols Airborne Divisions.

The fluid mechanical equipment includes the control valves for fuel and emergency shutoff, isolation, and venting of air in and out of the aircraft fuel tanks. This equipment will provide multiple functions for the aircraft's fuel system, including refueling and defueling, transfer, engine feed, and fuel tank venting. During aircraft operation, the pumps transfer fuel from tank to tank and supply the fuel to the engines.

The fuel measurement system gauges the fuel quantity in the tanks located in the aircraft's wings and fuselage, as well as the fuel management system, which monitors the distribution of fuel while commanding pumps and valves in the fuel system to provide refuel and fuel transfer.

"Parker is very excited to be a part of the new CSeries airliner and looks forward to providing Bombardier Aerospace with the fuel systems for this family of next-generation aircraft," said Greg Crowe, Air & Fuel Division Vice President and General Manager. "This is a significant award for Parker and is aligned with our strategy to provide complete systems for our customers."

### Hydraulic system

The hydraulic system will be designed and manufactured by Parker's Hydraulic Systems Division in Kalamazoo, Michigan. The hydraulic system provides the functions necessary to power and control the aircraft's flight control system, landing gear and steering system, thrust-reverser and variable-area nozzle system. This is the Parker Hydraulic Systems Division's fifth major hydraulic system platform to be jointly developed with Bombardier Aerospace.

Major system hardware elements include engine-driven pumps, VFAC-motor-driven pumps, a power transfer unit, reservoirs, accumulators, and filtration. Additionally, Parker will provide ancillary equipment, including heat exchangers, various sensors, valves, and quick-disconnect couplings.

Parker Aerospace Hydraulic Systems Division Vice President and General Manager Greg Bierlein commented, "We are honored to have been selected to provide our fifth complete hydraulic system for Bombardier and are excited to be a part of the CSeries and this growing mid-range aircraft market."

As the systems provider, Parker is responsible for architecture development, system sizing and analysis, equipment development and qualification, and integration testing that supports overall aircraft certification.

### Fly-by-wire flight control system

As previously announced under separate contracts, Parker has been selected as the exclusive supplier of fly-by-wire flight control systems for a period of ten years for all new Bombardier widebody aircraft programs requiring this technology. Parker Aerospace will develop a complete, state-of-the-art, generic fly-by-wire system from stick to surface, that will then be customized and manufactured for separate aircraft programs, starting with the CSeries aircraft. Parker estimates that this has the potential to

generate revenues of US \$3.5 billion over the life of the programs.

#### CSeries family of aircraft

The five-seat-abreast CSeries aircraft program - launched on July 13, 2008 - is specifically designed to meet the growing needs of the 100- to 149-seat commercial aircraft market category, estimated by Bombardier Aerospace at 6,300 aircraft, representing more than \$250 billion in revenue over the next 20 years. Bombardier expects to be able to capture up to half of this market.

#### About Parker Hannifin Corporation

Parker Aerospace is an operating segment of Parker Hannifin Corporation. Parker Aerospace designs, manufactures, and services hydraulic, fuel, inerting, and pneumatic components, systems, and related electronic controls for aerospace and other high-technology markets. Based in Irvine, California, its product lines include flight control actuation systems and components, thrust-reverser actuation systems, electrohydraulic servovalves, utility hydraulic systems and components, DC motor pumps, fuel pumps, motor operated valves and fuel equipment, lubrication oil reservoirs, lubrication and scavenge pumps, fuel measurement and management systems, cockpit instrumentation, flight inspection systems, lightning-safe products, pneumatic subsystems and components, fluid metering delivery and atomization devices, wheels, brakes, and fluid conveyance products such as hoses, tubes, disconnects, and fittings.

With annual sales exceeding \$12 billion, Parker Hannifin is the world's leading diversified manufacturer of mobile, industrial, and aerospace markets. The company employs 62,000 people in 48 countries around the world. Parker has increased its annual dividends paid to shareholders for 52 consecutive years, among the top five longest-running dividend-increase records in the S&P 500 index. For more information, visit the company's web site at [www.parker.com](http://www.parker.com), or its investor information site at [www.phstock.com](http://www.phstock.com).

Note: Bombardier and CSeries are either registered or unregistered trademarks of Bombardier Inc. or its subsidiaries.

#### Forward-Looking Statements:

Forward-looking statements contained in this and other written and oral reports are made based on known events and circumstances at the time of release, and as such, are subject in the future to unforeseen uncertainties and risks. All statements regarding future performance, earnings projections, events or developments are forward-looking statements. It is possible that the future performance and earnings projections of the company and individual segments may differ materially from current expectations, depending on economic conditions within both its industrial and aerospace markets, and the company's ability to maintain and achieve anticipated benefits associated with announced realignment activities, strategic initiatives to improve operating margins, and growth, innovation and global diversification initiatives. A change in economic conditions in individual markets may have a particularly volatile effect on segment results. Among the other factors which may affect future performance are: changes in business relationships with and purchases by or from major customers or suppliers, including delays or cancellations in shipments or significant changes in financial condition; uncertainties surrounding timing, successful completion or integration of acquisitions; threats associated with and efforts to combat terrorism; uncertainties surrounding the ultimate resolution of outstanding litigation; competitive market conditions and resulting effects on sales and pricing; increases in raw material costs that cannot be recovered in product pricing; the company's ability to manage costs related to employee retirement and health care benefits and insurance; and global economic factors, including manufacturing activity, air travel trends, currency exchange rates, difficulties entering new markets and general economic conditions such as inflation, interest rates and credit availability. The company makes these statements as of the date of this disclosure, and undertakes no obligation to update them.

**SOURCE** Parker Hannifin Corporation 09/04/2008 **CONTACT:** Alison Dittmeier, Media Relations & Communications Manager, Parker Aerospace, +1-949-851-3515, [adittmeier@parker.com](mailto:adittmeier@parker.com), Financial Analysts: Pamela Huggins, Vice President - Treasurer, Parker Hannifin Corporation, +1- 216-896-2240, [phuggins@parker.com](mailto:phuggins@parker.com)