

KEYWORDS: Consulting; Aircraft Analysis; Modifications (Analysis); Stress Analysis; Studies; Accident Analysis; Robotics; Testing/Test Equipment; Frangible Towers.

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CARR-TECH SERVICES Ltd (A Division of Howden Canada Inc)

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CONTACT: Mr Brian G Glew, President - (416) 293-6400

HISTORY: Carr-Tech Services has been associated with Canadian Aerospace since its formation in 1947 under the name Carriere and MacFeeters Limited at Toronto Island Airport. In January 88, Carr-Tech became a member of the Howden Canada Group of companies and is a subsidiary of Howden Group PLC which is located in Glasgow, Scotland.

CAPABILITY: The company is engaged in engineering, manufacturing, repair, overhaul, and field service operations involving military and commercial aircraft electronic, electrical and hydraulic accessory equipment; electrically controlled hot water dispensing systems for aircraft; and diesel, gasoline, or electrically driven ground power equipment. Other capabilities include custom designed power generation equipment for standby and prime source applications together with related electronic control, monitoring and protection equipment for the industrial, commercial transportation and agricultural markets.

Carr-Tech can also undertake subcontract programs (including custom designed or built to specification) for the manufacture of power supplies, regulators, inverters, control and annunciator panels, air and ground rotating beacons, landing lights, portable and emergency lighting equipment.

Carr-Tech Services Ltd implements a well established quality assurance program to ensure that all products and services supplied by the company are controlled to obtain the best possible quality and reliability, commensurate with economical and competitive cost considerations. The Chief Inspector of their Quality Control Department has over 25 years experience in aerospace and industrial quality control practices and procedures.

Carr-Tech's inspection organization and facilities are approved by the Department of Transport in respect of products supplied for use in civil registered aircraft and their Quality Control operation is recognized by the Department of National Defense as meeting the requirements of DND Specifications 1015 (MIL-Q-9858A), 1016 (MIL-I-45208), 1017 and 1019. In addition, their Quality Program standards meet or exceed CSA Standard 299.2.

AVERAGE WORK FORCE: Engineers/Technicians - 6
Production - 22
Others - 16

GROSS SALES: 1986 - \$4.5M
1987 - \$4.0M

PLANT SIZE: 43,500 Sq Ft

EQUIPMENT: Carr-Tech's production facilities are suitable for low quantity production runs and the manufacture of experimental and prototype equipment - lathes, milling machines, drills, punch presses, shears, welding equipment, riveters, grinders, paint spray booth, ovens, etc. Test instrumentation includes electrically driven test stands for generators, voltage regulators and control equipment; Bosch fuel injectors and fuel pump testers; hydraulic and fuel test stands for large capacity high pressure equipment; test stands for speed switches, tachometer generators and other instrumentation. Precision electrical and electronic measuring equipment is calibrated regularly to NRC standards.

EXPERIENCE: Carr-Tech Services Ltd is an approved supplier of services and qualified products to such companies as Aerospatiale,

Air Canada, Boeing Aircraft, Canadair, deHavilland, McDonnell Douglas and Wardair, plus the Canadian Government (DND and DOT), and various provincial government departments.

KEYWORDS: Aircraft Power; Avionics; Beverage Dispensing Systems; Build-To-Print; Hydraulics; Lighting Equipment; Prime Power Generating Equipment; R&O (Hydraulics); Solid State Devices; Standby Power Generating Equipment; Toilet Hot Water Systems.

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CASEY COPTER ACCESSORIES Ltd

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CONTACT: Mr M J Casey, Vice President - (514) 636-6155

HISTORY: Casey Copter Accessories Ltd is subsidiary of Dynamic Air Engineering, Santa Ana, CA, founded in 1975 with no other Canadian divisions.

CAPABILITY: The major products of this company are heating and air-conditioning systems for both aircraft and helicopters. Other products are DC motor speed control devices and temperature controls.

The heating system is applicable to aircraft equipped with Allison 250 series or Pratt & Whitney PT6 series engines. The system is designed for maximum reliability with minimal moving parts. This passive heater system is based on the air-to-air heat exchanger principle, requiring minimal maintenance. Use of the heater system does not reduce range, restrict airspeed, nor reduce rate of climb because it does not require bleed air or fuel. The heater system will provide a cabin temperature of 15°C at an outside temperature of -40°C, a 30 pound weight saving over a combustion heater, and a high output.

The air-conditioning system is of the vapor cycle type with an engine driven compressor. System capacities are available up to 36,000 BTU per hour with current designs. Higher capacities may be developed to customer requirements as will drive systems and installations. The systems are designed to be compatible with Casey heater installations.

Motor speed controls have been designed to provide variable speed control for 28V DC motors in air moving applications and provide increased brush life as well as continuous or step-wise variable control. These units are customized for each application.

AVERAGE WORK FORCE: Engineers - 2
Inspection - 1
Others - 9

GROSS SALES: 1986 - \$500K
1987 - \$500K

PLANT SIZE: 6,000 Sq Ft

EXPERIENCE: The Casey Heater System is currently being used by various departments of the Canadian Federal and Provincial Governments, governments of other countries, US State Governments, and in wide use with Army National Guards and the US Army (Alaska area). The air-conditioner is in early commercial introduction. Speed controls have been provided for military land vehicle installation and test stands. It is estimated that 80 - 90% of total sales are to the US (10% to the National Guards). Currently there have never been any sales to the USAF. They are interested in doing business with the USAF.

KEYWORDS: Airconditioning (Aircraft); Aircraft Airconditioning; Aircraft Heating; Electronic Controls; Heating (Aircraft); Motor Speed Control; Temperature Control.

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