

CONVAIR CV 580

# THE Muscle Plane

INFO & SPEC SHEET

**Type** Twin turboprop pressurized passenger aircraft capable of carrying up to 52 passengers. Pionair owns and operates 3 Convair. ZK-PAL (S/N 501) in New Zealand, VH-PDV (S/N 507) and VH-PDL (S/N 137) in Australia. 'PAL' and 'PDV' are similarly configured as fully appointed luxury airliners for 43 'Executive Class' passengers, featuring luxurious wide seats, ample leg room and in addition big windows that offer excellent 'flight-seeing' visibility. PDL on the other hand, has been fitted with a 'McGee' interior featuring overhead bins and is configured with 49 seats • The Convair is also widely used as an airfreighter due to

its large payload capability.

**History** Pionair's Convair PAL and PDV were built in San Diego, California in 1958. The CV580 is a conversion of the commercially designated CV240/340/440. The original CV240 first flew in 1948 and entered service in 1952. The original Pratt and Whitney R-2800 radial piston engines were replaced by Allison 501-D13 turboprop engines in the late fifties and early sixties. This enabled the CV580 to fly higher, faster and quieter. Airspeed increased from 255 kts to 355 kts and the rate of climb tripled. Air conditioning, pressurisation and sound proofing were added to enhance passenger comfort • The 'sister ships' PDL and PDV both had a complete refit in 1991 before being used by General motors in Detroit to transport their VIP passengers around the USA. Pionair purchased PAL in 2002, PDV in 2005. After purchasing PDV in 2005, the aircraft was extensively refurbished to the executive transport it is today. The aircraft, the refurbishment and inspections have been subject to rigorous checks and audits with the Civil Aviation Safety Authority.

**Powerplant** Two Allison A501-D13 turboprop engines each capable of producing 4,000 shaft hp@14,500 rpm, coupled through a reduction gearbox to Aero products A6441FN-606 four bladed hydro-mechanical propellers turning @1,090 rpm. At cruising speed each engine delivers 2,000 hp, about half their rated max. The Airesearch GTCP85-291 Auxiliary Power Unit provides compressed air for starting and 115V AC electrical power on the ground • The diagram illustrates just how much muscle the CV580 has! The turbines extract almost 10,000 hp—about 6,000 hp are utilized to drive the turbine's compressor leaving 4,000 shaft hp to drive the props. For comparison the engines' gross hp has been converted to 650 hp V8 Supercars. Each engine extracts the equivalent of an incredible 15 V8 Supercars! Nine blue cars represent the hp required for the compressor, while the six yellow ones the available shaft hp. At cruising speed of 537 km/hr, the each engine delivers 2,000 hp, or the equivalent of about three Supercars, per engine.

Muscle Equal to 30 x 650hp, V8 Supercars!

**Performance** Max speed 355 kts (657 km/hr) @22,000 ft; Cruise speed 290 kts (537 km/hr) @22,000 ft; Climb Rate up to 4000 ft/min (1,219 m/min); Operational ceiling 25,000 ft (7,620 m); Range 1,700 Nautical miles (3,200 kms).

**Weights** Empty weight: 16,453 kg (36,200 lbs); Max take off weight: 26,365 kg (58,000 lbs); Max landing weight: 23,635 kg (52,000 lbs).

**Dimensions** Length: 24.75m (81'2"); Height 8.89m (29'2"). Wing span: 32.91m(108')

**Payload** Max incl. fuel is 10,000kg, (22,000 lbs).



CV 580 CONVAIRLINER

