

Flight tests using Warpdrive propeller, 11 December 2015 09-30 UTC

QNH 1034 temperature -1, headwind 2 KTS, all climb data taken from 1000 AMSL to 2000 AMSL, 55 litres fuel and pilot.

T/O run 175 m, accelerate to 60 KTS, height gain with wheel down at runway end 200 feet. (Runway length 900m)

RPM at threshold 5100, climb 5000

Wheel up climb performance

60 KTS IAS 1000 feet 60 seconds.

70 KTS IAS 1000 feet 60 seconds.

80 KTS IAS 1000 feet 60 seconds.

90 KTS IAS 1000 feet 67 seconds.

Wheel down 60 KTS IAS 1000 feet 82 seconds.

Cruise test Warpdrive propeller 19 January 2016 14-30 UTC

Speeds are wind compensated GPS ground speed.

QNH 1015, 4 degrees C, headwind 1 KTS, cruise altitude 3000 feet, 30 litres fuel and pilot.

Confirmed previous T/O performance figures.

5000 rpm MAP 28 = 118 KTS

4800 rpm MAP 27.2 = 112 KTS

4450 rpm MAP 26.5 = 102 KTS

5500 rpm (max continuous) 132 KTS

Flight tests using EProps Durandal 80S, blade set at 24.1 degrees at 75% cord, 27 January 2016

QNH 1030 temperature 4 degrees C, headwind 2 KTS, all climb data taken from 1000 AMSL to 2000 AMSL, 45 litres fuel and pilot.

T/O run 165 m, accelerate to 60 KTS, height gain with wheel down at runway end 260 feet. (Runway length 900m).

RPM at threshold 5300, climb 5150

Wheel up climb performance

60 KTS IAS 1000 feet 51 seconds.

70 KTS IAS 1000 feet 52 seconds.

Wheel down 60 KTS IAS 1000 feet 74 seconds.

Cruise test 27 January 2016

Speeds are wind compensated GPS ground speed.

QNH 1030, 4 degrees C, cruise altitude 3000 feet, 40 litres fuel and pilot.

5200 rpm MAP 28 = 121 KTS

5000 rpm MAP 27.2 = 111 KTS

4800 rpm MAP 26.5 = 108 KTS

5500 rpm (max continuous) MAP 29 131 KTS