C172 PERFORMANCE

Specifications and Limitations
Performance figures given at 2300lbs (MAUW) and speeds in KIAS unless specified otherwise.

Structural Limitations
- Gross weight (take-off and landing): 2300 lbs
- Baggage allowance (area 1): 120 lbs (54kgs)
- Baggage allowance (area 2): 50 lbs (23kgs)
- Baggage allowance (max combine area 1 and 2): 120 lbs (54kgs)
- Flight load factor (flaps up): +3.8g – -1.52g
- Flight load factor (flaps down): +3.0g – 0

Speeds
- Never Exceed Speed (Vne): 160 kts (red line)
- Maximum structural speed (Vno): 128 kts (top of green arc)
- Maximum flap extended speed (Vfe): 85 kts (top of white arc)
- Stall speed clean/cruise configuration (Vs): 47 kts (bottom of green arc)
- Stall speed in landing configuration (Vso): 41 kts
- Maximum demonstrated crosswind component: 15 kts
- Maximum maneuvering speed (Va): 2300lbs 97 kts
  1950lbs 89 kts
  1600lbs 80 kts

Speeds for normal operation
- Normal take-off climb out speed: 60-70 kts
- Short field take off: lift off 50ft, 50ft 59kts
- Best rate of climb speed: 73-67 kts, sea level to 10,000ft
- Normal approach flaps 30°: 55-65 kts
- Normal approach flaps up: 60-70 kts
- Short field landing: 60 kts

Speeds for emergency operation
- Engine Failure after take-off: 65 kts flap up, 60 flap down
- Forced landing: 65 kts flap up, 60 flap down
- Precautionary landing: 60 kts full flap

Cruise Performance*
- Cruise at 2000ft pressure altitude: 2300 rpm 105 KTAS, 6.3 gph
- Cruise at 10,000ft pressure altitude: 2300 rpm 101 KTAS, 5.6 gph

* Cruise figures provided from the pilots operating handbook should be used with a contingency factor, a block cruises speed and fuel flow that allows for contingency and climb and descent are normally applied.