

Piper PA30/39 Twin Comanche

Facts, Figures, Tips and Tricks

Facts

World Record #4

Sub Class: E-3,000 to 6,000kg

Record: Distance in a straight line (non-stop)

From Capetown, South Africa to St. Petersburg, Florida, USA

Distance 6,845nm

Time 56 hours, 8 minutes

Date: December 24, 1964

More fact and Info:

<http://www.fergworld.com/twincomanche/>

<http://www.curtisaviation.com.au/assets/pdf/EFSQuickGuide.pdf>

[http://www.propilotguide.com/Aircraft/Multi-engine/Piper Twin Comanche.html](http://www.propilotguide.com/Aircraft/Multi-engine/Piper_Twin_Comanche.html)



Figures

Aircraft Specs

Engines: Lycoming IO-320-B - Right

hand Counter rotating

Rating (bhp@rpm): 160/2700

TBO: 2000hr

Propellers: Hartzell HC-E2YL-2

Number of Blades: 2

Type: Constant Speed/Hydraulically Actuated/Full Feathering

Diameter: 72in

Pitch (30 in station) 12.0 to 78.0 degrees

Airframe

Semi-Monocoque

Length: 25.2ft

Height: 8.2ft

Wing Span: 36.0ft

Wheel Base: 7.3ft

Wheel Tread: 9.8ft

Weights

Max Takeoff Weight: 3600lbs

Max Landing Weight: 3600lbs

Standard Empty Weight: 2207lb

Max Useful Load: 1393lb

Max Useful Load - with tip tanks reserve fuel (30 US Gal): 798lbs

Capacity

Seats: 4/6

Baggage Capacity: 200lbs

Basic Fuel Capacity: 60 US Gal (54 US Gal usable)

Internal Fuel Capacity (Aux tanks): 30 US Gal

Tip Tanks: 30 US Gal

Performance

Maximum Speed

Cruise @ 75% Power @ 8,000ft: 187kts

Cruise @ 65% Power @ 12,000ft: 169kts

Cruise @ 55% Power @ 16,000ft: 162kts

Cruise @ 45% Power @ 16,000ft: 130kts

Service Ceiling

Multi-Engine at 3,600lbs GW: 18,600ft

Multi-Engine at 2,800lbs GW: 20,600ft

Single-Engine at 3,600lbs GW: 5,800ft

Operating and Limiting Airspeeds-IAS

Vapp - Final Approach to landing:	83kt
Vapp - Final Approach (zero flap):	87kt
Vapp - Final Approach (IFR Approach/Clean):	104kt
Vc - Design Cruising Speed:	159kt
Vd - Demonstrated Diving Speed:	222kt
Vfe - Flap Extension Speed:	108kt
Vfe - Flap Extension Recommended:	87kt
Vle - Landing Gear Extended:	130kt
Vlo - Landing Gear Operation:	130kt
Vlo - Recommended:	108kt
Vmca - Single Engine Minimum Control Speed:	78kt
Vne - Never Exceed Speed:	200kt
Vno - Normal Operating Speed:	169kt
Vr - Rotation Speed (zero flap):	78kt
Vso - Stall Speed (Full flap and gear extended):	60kt
Vs1 - Stall Speed (clean):	66kt
Vx - Best Angle-of-Climb Speed: (At sea level):	78kt
Vxse - Best Single Engine Angle-of-Climb Speed:	82kt
Vy - Best Rate-of-Climb Speed (At sea level):	97kt
Vyse - Best Single Engine Rate-of-Climb Speed:	91kt
Best engine-out glide speed (Optimum):	96kt
Best engine-out glide speed (Endurance):	78kt

Tips & Tricks

The comparatively longer nose wheel extension makes it easy to “wheelbarrow” this aircraft on take-off and landing.

Trick: Apply a small amount of back pressure on takeoff up to the Vr: 78kt

Circuit

Downwind : MP 21” or as required

Base Leg: IAS = 100kts

Top of final = 90kts and continue a steady deceleration to 82kts “over the fence”

Trick: Hold off prior to landing with high nose attitude however, care as the nose can drop without warning if too slow.