



**PHOENIX  
AERO CLUB**  
EST. 1977

Piper Twin Commanche (PA-30-CR)

Quick  
Reference Handbook

SHADED AREAS ARE  
MEMORY ITEMS

Intentionally Blank

## Pre-Flight

### Cockpit

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Control Wheel.....	Release Restraints
Parking Brake .....	Set
Avionics .....	Off
Magneto Switches .....	Off
Landing Gear.....	Down
Master Switch.....	On
Fuel Gauges.....	Check Quantity
Interior/Exterior Lights .....	On – Checked – Off
Pitot Heat (IFR/NVFR Only).....	On – Checked – Off
Flaps .....	Extended
Battery Master Switch .....	Off

### Caution

**Make sure pitot cover is removed before checking pitot heat.  
Ground operation of pitot heat should be limited to TWO minutes to  
avoid damaging the heating element.**

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### Right Wing

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Control Surfaces .....	Check
Wing Tip/Lights .....	Check
Fuel Tank.....	Check Quantity
Fuel Tank Vents .....	Clear
Tie Down/Chocks .....	Removed
Right Wheel.....	Check Inflation and Wear
Main Gear Strut.....	2-3/4 in
Oil .....	Check - Not less than 6 Quarts
Dip Stick/Inspection Cover.....	Secure
Air Inlets.....	Clear
Propeller.....	Clear of Damage and Debris
Cowling .....	Secure
Fuel Drain.....	Drain and Clear of Water

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## Nose Section

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Windshield ..... Clean  
Heater and Ventilation Inlet ..... Clear  
Nose Gear Strut ..... 2-3/4 in  
Nose Wheel ..... Check Inflation and Wear

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## Left Wing

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Control Surfaces ..... Check  
Wing Tip/Lights ..... Check  
Fuel Tank ..... Check Quantity  
Fuel Tank Vents ..... Clear  
Tie Down/Chocks ..... Removed  
Right Wheel ..... Check Inflation and Wear  
Main Gear Strut ..... 2-3/4 in  
Oil ..... Check - Not less than 6 Quarts  
Dip Stick/Inspection Cover ..... Secure  
Air Inlets ..... Clear  
Propeller ..... Clear of Damage and Debris  
Cowling ..... Secure  
Stall Warning Switch ..... Free  
Pitot Head ..... Clear  
Fuel Drain ..... Drain and Clear of Water

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## Fuselage

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Static Vents ..... Clear  
Control Surfaces ..... Check  
Antennas ..... Check  
Baggage Door ..... Secure

**In Winter, ensure that all surfaces are clear of ice, frost, and snow.**

~ Pre-Flight Inspection Complete ~

## Before Starting Engine

Pre-Flight and Passenger Brief.....Complete  
Flight Log .....Complete  
M/R.....Signed  
Seats/Belts/Harnesses..... Adjusted/Locked  
Brakes..... Test and Set  
Fuel Selector.....Main Tanks (Inboard)  
Circuit Breakers ..... Checked In  
Avionics Master..... Off  
Alternate Static Source..... Closed  
Trim Tab.....Neutral  
Cowl Flaps ..... Open  
Switches..... Off/Beacon On  
Master Switch..... On  
Instruments ..... Checked

~ Before Starting Engine Checklist Complete ~

## Starting Engine

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### **Normal Start**

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Throttle ..... ½ in Open  
Propeller..... Full Forward  
Electric Fuel Pump ..... On  
Mixture ..... Full Rich  
Fuel Flow Gauge ..... 5 GPH Flow  
Mixture .....ICO  
Propeller Area ..... Clear  
Ignition Switch..... Start (Release when engine starts)  
Mixture .....Advance to Full Rich  
Throttle ..... Adjust 1000 RPM  
Oil Pressure ..... Green within 30 sec

**If oil pressure is not indicated within 30 sec, stop engine and determine cause of trouble.**

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## Flooded Start

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Throttle ..... Full Open  
Propeller..... Full Forward  
Mixture .....ICO  
Electric Fuel Pump ..... Off  
Propeller Area ..... Clear  
Ignition Switch ..... Start (Release when engine starts)  
Throttle .....Retard  
Mixture .....Advance to Full Rich  
Oil Pressure ..... Green within 30 sec

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## Hot Start

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Throttle ..... Full Open  
Propeller..... Full Forward  
Electric Fuel Pump ..... On  
Mixture ..... Full Rich then ICO  
Electric Fuel Pump ..... Off  
Propeller Area ..... Clear  
Ignition Switch ..... Start (Release when engine starts)  
Mixture ..... Advance to Full Rich  
Throttle ..... Adjust 1000 RPM  
Oil Pressure ..... Green within 30 sec

## After Start Checks

Fuel Pump..... Off  
Avionics and Intercom..... On – Set – Checked  
Taxi Lights..... On  
Alternator ..... Charging  
Mixture ..... Leaned  
Throttle ..... 1000 RPM  
Oil Pressure ..... Green  
Flaps ..... Retracted

~ After Start Checklist Complete ~

## Taxi Checks

Brakes..... Checked  
Instruments ..... AH/DI/TC/Compass Checked  
Nav aids..... Checked

~ Taxi Checklist Complete ~

**Do not proceed with Run-Up Checks until BOTH Oil Temperature and Oil Pressure are GREEN**

### Run-Up Checks

Parking Brake ..... Set  
Mixture ..... Full Rich  
Throttle ..... 2000 RPM  
Propeller..... Cycle 3 times (No Feather)  
Throttle ..... 1500 RPM  
Propeller..... Feather Check

**Move in and out of feather rapidly. Do not exceed 500 RPM drop.**

Manifold Pressure ..... 15" Hg  
Magnetos ..... Check Drop  
..... 175 RPM max. drop | 50 RPM differential drop  
Engine Instruments..... Green  
Ammeter ..... Positive  
Suction Gauge ..... approx. 5 inHg  
Throttle ..... Idle  
Throttle ..... 1000 RPM

**When exercising propellers in their governing range, do not move the control lever aft past the detent. To do so will allow the propeller to change rapidly to the full feathered position, imposing high stresses on the blade shank and engine.**



## **Before Take-Off Checks**

Fuel Selectors ..... Main Tanks (Inboard)  
Trim ..... Set Take-Off  
Controls ..... Free and Correct  
Flight Instruments ..... Set and Checked  
Radio/Nav aids/Avionics ..... Checked and Set  
Flaps ..... Set 0° or 15°  
Throttle Friction ..... Set  
Mixture ..... Rich  
Magnetos ..... Both  
Cowl Flaps ..... Open  
Seats/Belts/Harnesses ..... Adjusted  
Doors/Windows ..... Latched  
Departure Brief ..... Complete  
Take-Off Safety Brief ..... Complete

~ Before Take-Off Checklist Complete ~

## **Line Up Check**

Pitot Heat ..... As Required  
Instruments ..... Green/Aligned  
Switches + Fuel Pump ..... On  
Transponder/Trim ..... ALT/Set  
Altimeter ..... Within Tolerance

~ Line Up Checklist Complete ~

## **Rolling Check**

Power ..... Set/Green  
Engine Instruments ..... Green  
Airspeed ..... Rising

### **After Take-Off**

Gear ..... Released/Test  
Flaps ..... Up  
Power ..... Full  
Temps & Pressure ..... Green  
Switches ..... Off  
Mixture ..... Rich  
Centerline ..... Tracking

### **Top of Climb/Descent**

Fuel ..... Logged  
Mixture ..... Leaned  
QNH ..... Set Area  
DI / Compass ..... Aligned  
Cowl Flaps ..... As Required  
Aids ..... Source/Tune/Identify/Test  
Radio ..... Set/Checked

### **Balked Landing**

Propeller ..... Full Forward  
Throttle ..... Full Forward  
Airspeed ..... Climb (97 KIAS)  
Flap ..... Retract  
Landing Gear ..... Retract  
Cowl Flaps ..... A/R

### **Before Landing Checks**

Brakes..... Released/Test  
Undercarriage ..... Fixed  
Mixture ..... Rich  
Fuel..... Main Tanks (Inboard)  
Instruments ..... Aligned/Checked  
Switches..... All Lights On  
Hatches/Harnesses..... Secure  
PAL ..... A/R

### **Final Checks**

Pitch ..... Fixed  
Undercarriage ..... Fixed  
Flaps ..... Set  
Clearance ..... Obtained  
Conditions ..... Checked  
Stable Approach..... Confirmed

### **After Landing Checks**

Transponder ..... Standby  
Switches..... Pumps Off  
Mixture ..... Leaned  
Lights ..... Taxi and Beacon On  
Pitot Heat..... Off  
Flaps ..... Retracted  
Trim ..... Neutral  
Cowl Flaps ..... Open

## Shutdown Checks

Radios and Avionics..... Off  
Throttle ..... 1000 RPM  
Magnetos ..... Check Drop  
Throttle ..... Full Aft  
Mixture ..... ICO  
Magnetos ..... Off  
Master Switch..... Off

**When operating in high ambient temperatures, engine shutdown by mixture alone may not be positive. Under these conditions, depress throttle cut-off release button on the left side of the power quadrant and retard throttles fully aft.**

## **Airspeeds for Emergency Operation**

OEI Best Angle of Climb ( $V_{XSE}$ ) .....	82 KIAS
OEI Best Rate of Climb ( $V_{YSE}$ ) .....	91 KIAS
Minimum Control Speed ( $V_{MCA}$ ) .....	78 KIAS
Intentional OEI Speed ( $V_{SSE}$ ) .....	84 KIAS
Approach Speed nil flaps ( $V_{APP}$ ) .....	87 KIAS
Maximum Glide (Feathered) .....	96 KIAS

## Engine Emergencies

### Determining Inoperative Engine

#### Caution

Do not attempt to determine the inoperative engine by means of the tachometers or the manifold pressure gauges. These instruments often indicate near normal readings.

#### **Dead Foot – Dead Engine**

The ruder pressure required to maintain directional control will be on the side of the good engine.

#### **Throttle**

Partially retard the throttle for the engine that is believed to be inoperative; there should be no change in control pressures or in the sound of the engine if the correct throttle has been selected.

### PHASE 1

#### **Wings Level, Ball Centred, 5 Degrees Nose Up**

Mixture ..... Up  
Pitch ..... Up  
Power ..... Up  
Gear ..... Up  
Flaps ..... Up

#### **Dead Leg – Dead Engine**

Identify ..... Hand on Throttle of Dead Engine  
Verify ..... Cycle Throttle, Watch for No Change  
Flag ..... Close Throttle of Dead Engine  
Fix or Feather ..... AFMOST  
Trim ..... Approximate Trim

#### **Moderate Pause**

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## PHASE 2

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Aileron..... 5 Degrees toward Operating Engine  
Turn Coordinator..... ½ Ball toward Operating Engine  
Operating Engine .....Set Precision Power  
Trim ..... Set Precision Trim  
Cowl Flaps ..... Close on Inoperative Engine

### Long Pause

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## PHASE 3

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Command Decisions

1. LSALT
2. Diversion
3. Continue
4. Pan-Pan

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## PHASE 4

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Confirm and call out engine to be secured. Proceed with securing engine checklist.

Mixture .....ICO  
Fuel Selector..... Off  
Electric Fuel Pump ..... Off  
Magneto..... Off  
Cowl Flap ..... Closed  
Alternator/Generator..... Off  
Electrical Load .....Reduce/Monitor

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## PHASE 5

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Review Operational Decisions

1. Power/Instruments
2. Electrical Load
3. Fuel Management

## Engine Failure on Take-off

Throttle ..... Closed  
Braking ..... Maximum

If insufficient runway:

Fuel Selector..... Off  
Master Switch..... Off

## Engine Failure After Lift Off and on Climb

The most important aspect of engine failure is the necessity to maintain lateral and directional control. If airspeed is below 90 knots, reduce power on the operative engine as required to maintain control.

Landing Gear/Flaps ..... Retracted  
Airspeed ..... 91 KIAS  
Throttle (Inoperative Engine)..... Closed  
Propeller (Inoperative Engine) ..... Feather  
Aileron..... 5 Degrees toward Operating Engine  
Turn Coordinator..... ½ Ball toward Operating Engine  
Power (Operative Engine)..... Full Power

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## Securing Inoperative Engine

Mixture .....ICO  
Fuel Selector..... Off  
Electric Fuel Pump ..... Off  
Magneto..... Off  
Cowl Flap ..... Closed  
Alternator/Generator..... Off  
Electrical Load .....Reduce/Monitor



## **Engine Fire on Ground**

Starter..... Continue Cranking  
Mixture .....ICO  
Throttle ..... Open  
Electric Fuel Pump ..... Off  
Fuel Selector..... Off

## **Engine Fire in Flight**

Shut down the affected engine according to the following procedure and land immediately. Follow the applicable single-engine procedures in this section.

Throttle ..... Closed  
Mixture .....ICO  
Fuel Selector..... Off  
Electric Fuel Pump ..... Off  
Propeller..... Feathered

## **Glide**

Airspeed ..... 96 KIAS  
Propeller..... Feathered  
Landing Gear..... Up  
Flaps ..... Up  
Cowl Flaps ..... Closed

## **Emergency Descent**

Propeller..... Full Forward  
Throttle ..... Closed  
Landing Gear..... Down (below 130 KIAS)  
Airspeed ..... Below 130 KIAS

## Spin Recovery

Throttle ..... Idle  
Ailerons ..... Neutral  
Rudder ..... Full Opposite of Rotation  
Control Column ..... Briskly Full Forward  
Rudder ..... Neutral when Rotation Stops  
Control Column ..... Recover

Application of the ailerons opposite the direction of rotation can expedite recovery of the Twin Commanche

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## **Landing Gear Manual Extension**

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**DO NOT PERFORM MANUAL GEAR EXTENSION UNLESS YOU ARE EXPERIENCING A REAL EMERGENCY**

Airspeed ..... Below 87 KIAS  
Landing Gear Switch ..... "Down" Position  
Motor Release Arm..... Disengage and Push Forward  
Gear Extension Handle ..... Remove  
Gear Extension Handle ..... Engage Slot and Twist Clockwise

*Extend handle and rotate **FULL** forward to extend landing gear.*

*Handle locked in full forward position indicates landing gear is down. Confirm with indicator light.*

**Do not retract landing gear with handle in socket.  
Do not re-engage landing gear operating motor in flight**

## **Engine Abnormalities**

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### **AIR START**

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Magneto Switch ..... On  
Mixture ..... Full Rich  
Fuel Selector..... On  
Electric Fuel Pump ..... On  
Throttle ..... 1/4" Open  
Propeller..... Forward to Cruise Setting  
Starter..... Engage until Windmilling

*When engine starts, adjust throttle, prop, and mixture controls*

Oil Pressure ..... Check  
Electric Fuel Pump ..... Off  
Cowl Flaps ..... As Required  
Alternator ..... On

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### **Simulated One-Engine Inoperative**

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When establishing zero thrust operation, use the power setting listed below. By using this power setting to establish zero thrust, you avoid the inherent difficulties of restarting a shutdown engine and preserve almost instant power to counter any attendant hazard. To set up a zero-thrust condition:

Propeller Lever ..... Retard to Feather Detent  
Throttle Lever..... 12" Manifold Pressure

## Gear Up Landing

Flaps .....Up  
Throttles ..... Closed  
Fuel Selectors ..... Off  
Mixtures .....ICO  
Ignition ..... Off  
Master Switch ..... Off

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## **Single-Engine Landing**

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Landing Gear ..... Down  
Flaps ..... Approach (15°)  
Airspeed ..... Blue Line (91 KIAS)  
Power ..... A/R to maintain 800ft/min descent

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## **Single-Engine Go Around**

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**Level flight may not be possible for certain combinations of weight, temperature and altitude. In any event, do not attempt a one engine inoperative go-around after flaps have been full extended.**

Power ..... Full Power  
Rudder ..... Towards Operating Engine  
Fuel Selectors ..... Off  
Mixtures .....ICO  
Aileron ..... 5 Degrees toward Operating Engine  
Turn Coordinator ..... ½ Ball toward Operating Engine  
Landing Gear .....Retract  
Flaps .....Retract  
Airspeed ..... Blue Line (91 KIAS)

**Aircraft will not climb with gear and flaps extended**

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## Single-Engine Operation on Crossfeed

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The fuel crossfeed system should be used only during emergency conditions and only in level flight.

INOP Engine ..... Fuel Selector to “Main”  
Operative Engine ..... Crossfeed On

### Do not put BOTH fuel selectors in Crossfeed

*Before Landing*

Operative Engine ..... Main Inboard Tank  
INOP Engine ..... Fuel Valve OFF  
Operative Engine ..... Electric Fuel Pump On

# SUPPLEMENT 1 - COMPLETE OPERATING AND LIMITING AIRSPEEDS

PA-30 \* 3600 LBS GROSS WEIGHT

## V<sub>A</sub> - Design Maneuvering Speed / Turbulent Air Penetration Speed

At 3,600 lbs Gross Weight .....	162 mph	141 kt
At 2,450 lbs Gross Weight .....	135 mph	117 kt

**\*\* CAUTION \*\***

Maneuvering speed decreases at lighter weight as the effects of aerodynamic forces become more pronounced. Linear interpolation may be used for intermediate gross weights. Maneuvering speed should not be exceeded while operating in rough air.

V <sub>APP</sub> - Final Approach to Landing Speed .....	95 mph	83 kt
V <sub>APP</sub> - Final Approach (W/Zero Degrees of Flap) .....	100 mph	87 kt
V <sub>APP</sub> - Final Approach (IFR Approach/Clean) .....	120 mph	104 kt
V <sub>C</sub> - Design Cruising Speed .....	183 mph	159 kt
V <sub>D</sub> - Demonstrated Diving Speed .....	256 mph	222 kt
V <sub>FE</sub> - Flap Extension Speed .....	125 mph	108 kt
V <sub>FE</sub> - Recommended .....	100 mph	87 kt
V <sub>H</sub> - Maximum Operating Speed .....	205 mph	178 kt
V <sub>IMD</sub> - Maximum Endurance Speed .....	100 mph	87 kt
V <sub>IMR</sub> - Maximum Range Speed .....	130 mph	113 kt
V <sub>LE</sub> - Landing-Gear Extended Speed .....	150 mph	130 kt
V <sub>LO</sub> - Landing-Gear Operation Speed .....	150 mph	130 kt
V <sub>LO</sub> - Recommended .....	125 mph	108 kt
V <sub>MCA</sub> - Single Engine Minimum Control Speed .....	90 mph	78 kt
V <sub>NE</sub> - Never Exceed Speed .....	230 mph	200 kt
V <sub>NO</sub> - Normal Operating Speed / Maximum Structural Cruising Speed .....	194 mph	169 kt
V <sub>R</sub> - Rotation Speed (W/Zero Degrees of Flap) .....	90 mph	78 kt
V <sub>S0</sub> - Stall Speed (Power Off - Full Flaps and Gear Extended) .....	69 mph	60 kt
V <sub>SI</sub> - Stall Speed (Power Off - Clean) .....	76 mph	66 kt
V <sub>SSE</sub> - Minimum Intentional Single Engine Speed .....	97 mph	84 kt
V <sub>X</sub> - Best Angle-of-Climb Speed (At Sea Level) .....	90 mph	78 kt
V <sub>XSE</sub> - Best Single Engine Angle-of-Climb Speed .....	94 mph	82 kt
V <sub>Y</sub> - Best Rate-of-Climb Speed (At Sea Level) .....	112 mph	97 kt
V <sub>YSE</sub> - Best Single Engine Rate-of-Climb Speed .....	105 mph	91 kt

## Emergency Airspeeds

Best Engine-Out Glide Speed (Optimum) .....	110 mph	96 kt
Best Engine-Out Glide Speed (Endurance) .....	90 mph	78 kt

## Other Speeds

Best En Route Rate-of-Climb Speed .....	130 mph	113 kt
Demonstrated Crosswind Component .....	20 mph	17 kt

## POWER SETTING TABLE

LYCOMING MODEL IO-320-B, 160 HP NORMALLY ASPIRATED ENGINE

PRESSURE ALTITUDE	STD AIR TEMP	F.	C.	88 HP - 55% RATED			104 HP - 65% RATED			120 HP - 75% RATED				
				1. APPROX RPM AND MAN PRESS	2. APPROX RPM AND MAN PRESS	2400	2300	2100	2200	2300	2400	2200	2300	2400
SEA LEV	59	15		22.4	21.7	21.0	20.4	25.0	24.2	23.3	22.7	26.5	25.6	24.9
1,000	55	13		22.1	21.5	20.7	20.2	24.7	23.9	23.0	22.4	26.2	25.3	24.6
2,000	52	11		21.8	21.2	20.5	19.9	24.4	23.6	22.8	22.2	25.9	25.0	24.3
3,000	48	09		21.6	20.9	20.2	19.7	24.1	23.3	22.5	21.9	25.6	24.7	24.0
4,000	45	07		21.3	20.6	19.9	19.4	23.8	23.0	22.2	21.6	25.3	24.3	23.7
5,000	41	05		21.0	20.4	19.7	19.2	23.5	22.7	21.9	21.3	24.0	23.4	23.1
6,000	38	03		20.8	20.1	19.4	18.9	23.2	22.4	21.6	21.1			
7,000	34	01		20.5	19.8	19.1	18.7	22.1	21.3	20.8				
8,000	31	-01		20.2	19.5	18.9	18.4	21.8	21.0	20.5				
9,000	27	-03		19.9	19.2	18.6	18.2							
10,000	23	-05		19.7	19.0	18.3	17.9							
11,000	19	-07		19.4	18.7	18.1	17.7							
12,000	16	-09			18.4	17.8	17.4							
13,000	12	-11			17.5	17.2								
14,000	09	-13					16.9							
15,000	05	-15												

- 1.) BEST ECONOMY CRUISE - PEAK EGT
- 2.) BEST POWER CRUISE - 100 DEGREES FAHRENHEIT RICH OF PEAK EGT

\*\* NOTE \*\*

TO MAINTAIN CONSTANT POWER, CORRECT MANIFOLD PRESSURE APPROXIMATELY 0.17 INCH Hg. FOR EACH 10 DEGREE FAHRENHEIT VARIATION IN INDUCTION AIR TEMPERATURE FROM STANDARD ALTITUDE TEMPERATURE. ADD MANIFOLD PRESSURE FOR TEMPERATURES ABOVE STANDARD; SUBTRACT FOR TEMPERATURES BELOW STANDARD.

## 4C10 Piper Twin Comanche (PA-30)

### 4C10.1 Description

The airplane is a six-place, low wing, twin engine airplane equipped with retractable tricycle landing gear. This airplane is certified in the normal category. The aircraft is powered by two contra-rotating Lycoming IO-320-B and are rated at 160 horsepower each at 2700 RPM. Both are four cylinder, normally aspirated, direct drive, air cooled, horizontally opposed, fuel injected engines.

### 4C10.2 Airspeeds

Never Exceed Airspeed	(V <sub>NE</sub> )	203	KIAS
Max. Structural Cruise	(V <sub>NO</sub> )	171	KIAS
Min. Control Speed	(V <sub>MCA</sub> )	76	KIAS
Manoeuvring Speed	(V <sub>A</sub> )	141 @ 3600 LBS 116 @ 2450 LBS	KIAS
Max. Gear Operating	(V <sub>LO</sub> )	130	KIAS
Max. Gear Extended	(V <sub>LE</sub> )	130	KIAS
Max. Flap Extended	(V <sub>FE</sub> )	107	KIAS
Best Single-Engine R.o.C	(V <sub>YSE</sub> )	91	KIAS
Best Glide Speed		96	KIAS
Max. Crosswind Component		17	KTS

### 4C10.3 Fuel

Approved 100 grade aviation fuel (green) or 100LL (blue)

Main Tanks – 205 Litres Useable

Auxiliary Tanks – 114 Litres Useable

### 4C10.4 Oil

Capacity – 8 Quarts per engine

Grade – SAE 20W-50 Ashless Dispersant Aviation Oil

Note: Do not operate engine with less than 6 quarts.

### 4C10.5 Weight and Balance

Max. Take-off Weight	(MTOW)	3600	LBS
Max. Landing Weight	(MLW)	3600	LBS

Aircraft is to be loaded in accordance with the Aircraft Flight Manual weight and balance chart.



## 4C10.6 Normal Operations

Operations shall be conducted in accordance with the AFM and the Pilot's Operating Handbook

### 4C10.6.1 Normal Power Settings

Climb	Do not reduce power below take-off setting until 500' AGL or higher if obstacle clearance is required. When in IMC, do not reduce power below take-off setting until above LSALT or MSA, whichever is lower. MAP: Full Throttle RPM: Max. RPM Fuel Flow: Lean as <u>required</u> IAS: 97 KTS		
	Enroute Climbs MAP: 25" RPM: 2500 RPM Fuel Flow: Lean as <u>required</u> IAS: 113 KTS		
Cruise	Recommended IAS 155 KTS	22.0" MAP	2300 RPM
Descent	As per pilots operating handbook		
Normal Approach	Final Use gear to initiate <u>descent</u> All other approaches as per POH	15-17" MAP	83 KTS
Taxiing	As per pilots operating handbook		
Shut Down	As per pilots operating handbook		

## 4C10.7 Fuel Flow and Planning

Airspeeds	TAS 155 KTS (including climb, cruise, descent)
Block Fuel Flow	Block fuel flow of 70 litres per hour.
Holding	Fuel flow of 50 litres per hour @ 55% power (21"MAP 2200 RPM)
Final Reserve	Fuel flow of 75 litres per hour.
Taxi	Major City Airports – 20 litres Country Airports – 10 litres
Instrument Approach	Allow 30 litres per instrument approach
Single Engine	Fuel flow of 50 litres per hour

## **Passenger Brief Items**

- No Smoking in aircraft
- Proper usage and adjustments of seatbelts
- Emergency Procedures
- Location and operation of Emergency Exits
- Location of emergency items
  - Life Jackets
  - Life Rafts
  - Fire Extinguishers
- Requirements of PAX in Control Seat
  - Constant Communication
  - Remain Clear of Controls
- Baggage

## Take-Off Safety Brief

Engine failure or fire below decision speed (blue line +10), I will abort the takeoff. If I have an engine fire or failure above the decision speed (blue line + 10), I will continue.

Control aircraft: wings level, ball centered, 5 nose pitch up.

Mixture .....	Up
Pitch .....	Up
Power .....	Up
Gear .....	Up
Flaps .....	Up
Identify .....	Dead Foot, Dead Engine
Confirm .....	Close Throttle of Dead Engine
Feather .....	Failed Engine

If the aircraft is not performing or engine is on fire, land straight ahead. If positive rate of climb & terrain clearance can be maintained continue.

If in IMC & it is not possible to land, climb within the circling area until LSALT maintained.

If visual, make left or right circuit based on terrain considerations. Inform Tower/ATS and request emergency services. Carry out asymmetric circuit and land.