

Normal Procedures checklist ~ PA34-200T (Seneca II) N81291

BEFORE STARTING ENGINES

1. Documents/Pre Flight Inspection.....	Correct/Complete
2. Cabin doors.....	Secure
3. Passenger briefing.....	Completed
4. Seats/Belts & Harnesses.....	Adjusted/Secured
5. Controls.....	Free & Correct
6. Fuel Quantity.....	Adequate
7. Fuel Selectors.....	Check ON
8. Alternate Air.....	Check then OFF
9. Circuit Breakers.....	Checked all in
10. Electrical Switches & Autopilot.....	OFF
11. Alternator Switches.....	ON
12. Avionics.....	OFF
13. Alternate Static Source.....	OFF
14. Mixtures.....	ICO
15. Cowl Flaps.....	As Required
16. Master Switch.....	ON
17. Gear Lights.....	3 Greens

ENGINE START (Master Switch OFF when using GPU)

1. Throttle.....	Set
2. Prop Controls.....	Forward
3. Mixtures.....	Rich
4. Engine Priming.....	As Required
5. Magneto Switches.....	ON
6. Propeller Area.....	Clear
7. Starter.....	Engage
8. Starter Warning Light.....	Out
9. Throttle RPM.....	1200
10. Oil Pressure and Fuel Flow.....	Check
11. Ammeters & Gyro Pressure.....	Check
12. Magnetos.....	Dead Cut Check

Repeat for second engine

AFTER ENGINE START

1. Heater/Defrost.....	As Required
2. Cabin Air/Vent Fan.....	As Required
3. Compass/DI.....	Align
4. Annunciator Lights.....	OUT
5. Avionics.....	ON
6. Radio/Nav Equipment.....	Set
7. Electric Trim.....	Check
8. Gyro Compass.....	Check
9. Nav/Radio Equipment.....	Check
10. Flight Instruments.....	Check
11. Autopilot.....	Check then OFF
12. Fuel Selectors.....	Cross Feed

PRE TAXI AND DURING TAXI

1. Brakes.....	Check
2. Heater and Ventilation.....	As Required
3. Taxi light.....	As Required
4. Flight Instruments.....	Check

ENGINE RUN-UP

1. Fuel Selectors.....	ON
2. Temps/Pressures.....	Green
3. Mixtures.....	Rich
4. Prop Controls.....	Forward
5. Cowl Flaps.....	Open
6. Engine Instruments.....	Checked
7. Throttles.....	1900 RPM
8. Manifold Pressure Lines.....	Operate (5 Secs)
9. Propeller Controls.....	Exercise
10. Magnetos.....	Check Drop
11. Ammeters.....	Check
12. Temps/Pressures.....	Check
13. Gyro Pressure (4-6 psi).....	Check
14. Prop De-Ice.....	Check
15. De-icing boots.....	Check
16. Throttles.....	1500 RPM
17. Propeller Feather.....	Check
18. Throttles (600-650 RPM).....	Idle Check

BEFORE TAKE OFF

1. Trim.....	Set
2. Throttle Friction.....	Set
3. Mixtures.....	RICH
4. Propellers.....	Forward
5. Fuel Selectors and Qty.....	Check Mains/Adequate
6. Flaps.....	As Required
7. Engine Instruments.....	Check
8. Cowl Flaps.....	Set
9. Alternate Air.....	In
10. Alternate Static.....	Off
11. Seatbelts & Harnesses.....	Fitted
12. Doors.....	Locked
13. Autopilot.....	Off
14. Flying Controls.....	Full range and Correct
15. Flight Instruments.....	Check
16. Altimeters.....	Check/Set

DEPARTURE CLEARANCE

1. Radio Aids (SID).....	Set
2. Transponder.....	Set/ALT
3. Windshield Heat.....	As Required
4. Pitot Heat.....	ON
5. Fuel Pumps.....	OFF
6. Strobe lights.....	ON
7. Vent Fan.....	OFF
8. Landing light.....	ON
9. DI, Compass and Runway.....	All Agree

AFTER TAKE OFF/MISSED APPROACH CHECK

1. Brakes.....	On/Off
2. Gear and flaps.....	UP
3. Power.....	35%/2400 rpm
4. Engine T's and P's.....	Check
5. Landing/Taxi lights.....	OFF
6. Altimeters.....	QNH
7. Fuel Pumps.....	OFF

TOP OF CLIMB/CRUISE CHECK

1. Power/RPM.....	Set per power table
2. Mixtures.....	Lean
3. Instruments.....	Check
4. Cowl Flaps.....	As Required

TOP OF DESCENT CHECK

1. Mixtures.....	Richen in descent
2. Weather.....	Check
3. MSA.....	Check
4. Altimeters.....	Set/Cross Check

INITIAL APPROACH CHECK

1. Mixtures.....	Set
2. Power & RPM.....	Set*
3. Instruments.....	Check
4. Radio/Nav equipment.....	Set/Identified
5. Altimeters.....	Set/Cross Check
6. Minima.....	Checked
7. Seat belts/harnesses.....	Secure

PRE-LANDING CHECK

1. Gear.....	DOWN
2. Power.....	Set
3. Fuel Pumps.....	OFF
4. Brakes.....	Check/On
5. Flaps.....	As Required

FINAL CHECK

1. Gear.....	Check 3 Greens
2. Flaps.....	As Required
3. Altimeters.....	Check
4. Propellers.....	Max RPM

AFTER LANDING CHECK

1. Flaps.....	UP
2. Throttle Friction.....	Loosen
3. Propellers.....	Max RPM
4. Fuel Pumps.....	OFF
5. Pitot Heat.....	OFF
6. Screen Heat.....	OFF
7. Strobe & Landing Lights.....	OFF
8. Propeller de-icing.....	OFF
9. Heater/fan switch.....	Select Fan
10. Air Intake.....	Open
11. Vent Fan/Defroster.....	As Required
12. Transponder.....	As Required
13. Trim.....	Set Neutral
14. Cowl Flaps.....	Open

CLOSING DOWN CHECK

1. Power.....	1200 rpm
2. Magnetos.....	Check
3. Radio & Electrical.....	All OFF
4. Taxi Light.....	OFF
5. Ammeters.....	Check
6. Mixtures.....	Idle cutoff
7. Throttles.....	Closed
8. Magnetos.....	OFF
9. Navigation Lights.....	OFF
10. Fuel Selectors.....	OFF
11. Panel & Radio Lighting.....	OFF
12. Battery Master Switch.....	OFF

SPEEDS KIAS - (Refer to AFM)

V _{le} (10°)	140	V _a (1999kgs)	140
(25°)	122	V _a (1454kgs)	114
(40°)	115	V _{ca}	66
V _{le}	130	V _{yc}	92
V _{lo}	108	V _{no}	166
V _r	79	Barrier Speeds (Normal) (Short field)	
Cruise Climb	120 / 33"	2000kgs	89 81
Downwind	120	1900kgs	87 79
Approach	100	1800kgs	85 77
V _x	76	(For flapless landing add 5 knots)	

*Recommended Power Setting for Instrument Approach - 23"/2400RPM

Emergency Procedures checklist ~ PA34-200T (Seneca II) N81291

ENGINE FAILURE DURING NORMAL TAKEOFF

Below Vr (79kts)

If runway remains for a safe stop:

Throttle	close immediately
Brakes	as req
Stop	straight ahead

If insufficient runway to stop:

Throttles	close immediately
Brakes	as req
Mixture	ICO
Master switch	off
Fuel selectors	off
Magneto switches	off

Continuing takeoff (Above 79kts)

Directional control	maintain
Power (op engine)	max. cont.
Propeller (inop engine)	feather
Landing gear	retract
Bank	up to 5° towards op engine
Airspeed	accelerate to 92 kts
Cowl flaps (inop engine)	close
Airspeed	100 kts after obstacles
Engine securing	complete
Trim	as req

ENGINE FAILURE DURING CLIMB

Dead Engine	Feather
Climb speed	100kts
T's & P's	Monitor

SINGLE ENGINE LANDING

Complete feathering procedure.

Before landing check list (max rpm)

Maintain 100 kts till landing assured

Do not drop gear till landing assured

Do not lower flaps till landing assured

POWER PLANT FIRE ON THE GROUND

Fuel Selectors	Off
Fuel Pumps	Off

If engine is running, advance power to use fuel in engine.

If fire is contained within cowl keep engine turning with starter, attempting to start and drawing flame into engine induction system.

In case of a gasoline fire outside the cowl and on the ground, taxi away from fire, if possible. Call for assistance

EMERGENCY LANDING GEAR EXTENSION

Circuit Breakers	Check
Battery Master Switch	On
Navigation Lights	Off
Airspeed	Below 85 kts
Gear selector	Down
Emergency Gear Knob	Pull
Check	Three Greens
Nosewheel Position	Mirror
Landing Pump Circuit Breaker	Pull

GEAR-UP LANDING

If a gear-up landing becomes necessary:

Select suitable landing area. Request emergency equipment

Request foam if available. Burn off excess fuel (if time allows)

Passengers	Brief
Seat belts	Tight
Autopilot	Off
Gear selector	Up
Flaps	Down
Master switch	"off" in daylight

Make normal approach Note: gear warning horn may sound

When runway is "made":

Mixtures	ICO
Fuel selectors	Off
Land	Smoothly
Master switch	Off (night)

Evacuate.

FEATHERING/FIRE DRILL

Direction & speed	Maintain
Mixtures	Forward
Props	Forward
Throttles	Forward
Inoperative engine	Identify
Throttle on inop engine	Retard
Prop on inop engine	Feather
Gear	Retract
Flaps	Retract
Mixture on inop engine	ICO
Fuel pump inop engine	Off
Mags inop engine	Off
Check for Fire	
Cowl flaps inop engine	Close
Cowl flaps live engine	As Required
Alternator inop engine	Off
Electrical load	Reduce
Trim	As required
Fuel inop engine	Off
Crossfeed	As required

UNFEATHER PROCEDURE (INOP. ENGINE)

Fuel	On
Electric Fuel Pump	On/LO
Throttle	Set
Propeller	Set
Magneto switches	On
Alternator	On
Mixture	Rich
Prime	As required
Starter	Engage
Oil Pressure	Check
Manifold pressure	18"
Maintain this low power until T's & P's begin to rise	
Ammeter	Check
Gyro Pressure	Check

SINGLE ENGINE GO-AROUND

Throttle	Open
Flaps	Retract
Landing gear	Retract
Airspeed	100 kts
Trim	Set
T's & P's	Monitor

TOTAL ALTERNATOR FAILURE

Electrical Load	Reduce
Field Circuit Breaker	Check/Reset
Ammeter/Warning	Check
Alternator Switch	Cycle
If unable to get electrical power restored Land ASAP	

ELECTRICAL FIRE

Master switch	Off
Circuit breakers	Check
Circuit Breakers	Pull all
All electrical switches	Off
Master switch	On
Individual units	On, one at a time to locate faulty unit.

PROPELLER/GOVERNOR MALFUNCTIONS

RPM UNDERSPEED

Power	Reduced
Mixture	Forward
If prop moves to feather:	
Mixture	ICO
Prop Control	Feather
Engine	Secure.

RPM OVERSPEED

Power	Reduce
Airspeed	Reduce
If Prop speed remains above 2575 RPM:	
Propeller	feather
Engine	Secure