

**ALEXANDER AIR LTD**  
**PA28-161 Warrior FLIGHT CHECK LIST**  
**BOXED ITEMS SHOULD BE CARRIED OUT FROM MEMORY**

**FIRST FLIGHT OF DAY**

Before entering the aircraft, check surfaces clear of hoar frost, snow, ice and mud

**COCKPIT PREPARATIONS**

Control lock	Stowed
Parking brake	SET
Fire extinguisher	Check
First aid kit	Check
Magneto/starter switch	OFF, keys out
Battery master/alternator switch	ON
Fuel	Check contents
Annunciator panel	TST
Beacon	Check
Wing strobes	Check
Pitot heater	Check
Stall Warner	Check
Taxi/landing light(s)	Check
Nav, lights	Check
Battery master/alternator switch	OFF

**STARBOARD WING**

Flap	Check
Aileron	Check
Wing Surface	Check
Tie down	Removed
Fuel tank, and drain	Check contents, Water/sediment, colour
Fuel tank vent	Unobstructed
Main wheel strut	Correct extension
Starboard main wheel	Check brakes, tyre inflation & condition

**FRONT FUSELAGE**

Windscreen	Condition
Oil contents	Check, 6 US quarts min; 8 qrts extended flights
Oil dipstick & Stbd Cowling	Secure
Air Intake	Check
Exhaust pipe	Secure
Propeller and spinner	Check
Alternator belt	Check
Nose wheel	Check
Nose gear strut	Correct extension
Brake Fluid	Check
Port Cowling	Secure
Fuel drain	Water/sediment Check

**PORT WING**

Port main wheel	Check brakes, tyre inflation & condition
Main wheel strut	Correct extension
Fuel tank, and drain	Check contents, Water/sediment colour
Tie down	Removed
Wing surface	Check
Pitot head & static port	Unblocked
Aileron	Check
Flap	Check

**REAR FUSELAGE AND TAIL SECTION**

Fuselage skin and windows	Check
Tie down	Removed
Fin surfaces, Rudder	Check
Elevator and trim tab	Check
Aerials	Check
Fuselage skin and windows	Check
Baggage door	Check

**BEFORE STARTING ENGINE**

External check	Complete
Passenger briefing	Complete
Cabin door	Closed, locked
Parking brake	Set
Seat and seat belts	Adjusted, secure
Elevator and Aileron Controls	Full, free and correct movement
Alt Static Valve	Closed
Flight Instruments	Serviceable
Radio/Electrical	OFF
Cabin Heater/Fan	OFF
Circuit breakers	IN
Carb Heat	Full and Free Movement Set OFF
Throttle Friction	Released
Mixture	Full and Free Set ICO
Throttle	Full and Free Set ¼ inch open
Elevator Trimmer	Free movement Set Neutral

**STARTING ENGINE**

Battery master/alternator switch	ON
Beacon	ON
Fuel	Select lower tank
Fuel Pump	ON, Check Pressure Stable, then OFF
Primer	If cold 4-6 strokes then Locked
Propeller area	Clear
Magneto/starter switch	BOTH/START

**AFTER ENGINE START**

Starter warning light	Out
Oil pressure	Rising within 30 secs
Throttle	1200 rpm
Alternator	Charging
Suction	Registering
Annunciator panel lights	OUT

Radio/nav/intercom	Set
ATIS	Obtain
Flight instruments	Check, set altimeters and DI
Clearance	Obtain
Transponder	Code Set, ALT

**INITIAL TAXY**

Brakes	Check
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**POWER CHECK**

Fuel	Change to Fuller Tank
Temperatures and pressures	Check in green
Throttle	2000 rpm
Carb Heat	ON then OFF
Magnetos	Check Max drop 175 rpm, differential max 50 rpm
Alternator	Charging
Suction	4-6 in Hg

Temperatures and pressures	Check green
Throttle	Check idle 600-800 rpm
Throttle	1200 rpm

**PRE-TAKE OFF**

Trim	SET
Throttle friction	SET
Mixture	RICH
Fuel	Left / Right Contents checked
Fuel Pump	ON
Flaps	0 or 25 deg
Temperatures and pressures	Check green
Annunciator panel lights	Out
Flight instruments	Check
Seat and seat belts	Secure
Cabin door	Closed, locked
Ailerons and Elevator	Full and free movement
Emergency brief	Complete

.....**When cleared onto runway**.....

**TAXYING**

Flight instruments	Check
Rudder	Check full movement

**AFTER TAKE OFF / MISSED APPROACH**

Flaps	RETRACTED
Engine Instruments	Check
Taxi/landing light(s)	As Required
Fuel Pump	After 1000' AGL OFF

**IN-FLIGHT CRUISE / REJOIN CHECK**

Fuel	Contents and balance
Radio	As required
Engine	Temp, press, amps, suction Carb Heat and Mixture
DI	Synchronised
Altimeter	Pressure setting

**PRE-LANDING CHECK**

Brakes	Check, off
Mixture	RICH
Fuel	Contents and balance Select Higher Tank
Fuel Pump	ON
Flaps	As required
Engine	Temperatures & pressures green
Landing light	A/R
Carb Heat	Check
Seat, seat belts, door	Secure

**AFTER LANDING CHECK**

Flaps	UP
Throttle friction	Loosen
Taxi/landing light(s)	A/R
Pitot heater	OFF
Strobes	OFF
Transponder	7000 STBY
Trim	Neutral

### CLOSING DOWN

Parking brake	Set
Throttle	1200 rpm
Magnetos	Drop not stop
Radios/Electrical	OFF
Mixture	ICO
Magneto/starter switch	OFF, keys out
Beacon	Leave ON
Battery master/alternator switch	OFF

### PRE-STALLING CHECK

H Height	Sufficient to recover by 3000ft agl
A Airframe	Flaps as required
S Security	Cabin door secure, No loose articles Seat Belts secure
E Engine	Fuel contents, Balance, Mixture RICH Eng Insts Green
L Location	Clear of active airfields, Built up areas, Cloud, Controlled airspace
L Lookout	1x180° or 2x90° and clear of other aircraft

### ENGINE FIRE (GROUND)

Continue to crank/run engine to suck flames and accumulated fuel into the engine,  
If engine starts run at 1800 rpm for a few minutes then shut down and check for damage  
If fails to start;

Throttle	OPEN
Mixture	ICO
Cranking	CONTINUE
Fuel	OFF
Fuel pump	OFF
Battery master/alternator switch	OFF
Magnetos	OFF
Brakes	RELEASE
Evacuate aircraft as soon as possible	
Fire	EXTINGUISH

### ENGINE FIRE (AIR)

Mixture	ICO
Fuel	OFF
Fuel pump	OFF
Battery master/alternator switch	OFF
Cabin heat/air	OFF, except overhead vents
Mayday call, Execute forced landing, <b>do not attempt restart</b>	

### ELECTRICAL FIRE (AIR)

Battery master/alternator switch	OFF
Vents/cabin air/heat	CLOSED
Fire extinguisher	Operate as required
Radio/Electrical	OFF
Ventilate cabin after using hand fire extinguisher	
If fire appears extinguished and electrical power required:	
Battery master/alternator switch	ON
Circuit breakers	Check, DO NOT RESET
Radio/electrical switches	<b>One at a time</b> ON until fault identified

### CABIN FIRE

Master Switch	OFF
Vents, cabin air & heat	CLOSED
Fire extinguisher	Activate
Vents, cabin air and heat	Open when fire extinguished
Land as soon as possible	

**ENGINE FAILURE IN FLIGHT**

Carb Heat		ON
Glide 73 kts and Trim	Select field plan descent, Check cause of failure	
Fuel	Check contents L/R	
Fuel pump		ON
Mixture		RICH

Magnetos BOTH or START if propeller stopped  
 Mayday call then CRASH / EFATO CHECKS

**CRASH / EFATO CHECKS**

Throttle Closed  
 Mixture ICO  
 Fuel OFF  
 Magnetos OFF  
 Door Unlatch  
 Seat and Belts Secure, Backs Upright  
 Mayday call  
 Battery master/alternator switch OFF

**LOW VOLTAGE ANNUNCIATOR (ALT) ILLUMINATES**

Ammeter Check to verify if alternator inoperative  
 If ammeter shows no charge:  
 Radios OFF  
 Alternator circuit breaker Check and reset once  
 Battery master/alternator switch OFF (both sides)  
 Battery master/alternator switch ON  
 Low voltage annunciator (ALT) Check OFF  
 Radio ON  
 If Low voltage annunciator (ALT) illuminates again:  
 Alternator switch OFF  
 Reduce electrical loads to minimum  
 Battery only source of electrical power, land as soon as practical

**AMMETER SHOWS EXCESSIVE RATE OF CHARGE (**

Alternator switch OFF  
 Reduce electrical loads to minimum  
 Battery only source of electrical power, land as soon as practical

**STATIC SOURCE BLOCKAGE (UNRELIABLE AIRSPEED)**

Alternate static pressure source valve ON  
 Airspeed Monitor

**VACUUM (VAC) ANNUNCIATOR ILLUMINATED**

Vacuum gauge Check to verify normal operating limits  
 CAUTION: If vacuum outside normal limits a failure has occurred within vacuum system and limited panel procedures may be required

**RECOMMENDED SPEEDS AND POWER SETTINGS - PA28-161****TAKE-OFF**

Normal	V <sub>R</sub> 65 kts	Full power	Clean
Soft field	V <sub>R</sub> 55 kts	Full power	Flap 25°
Normal climb	75-85 kts	Full power	Clean
Best rate of climb	79 kts	Full power	Clean
Best angle of climb	63 kts	Full power	Clean

**APPROACH**

Normal	65-75 kts	As required	Flap 40°
Flapless	70-80 kts	As required	Clean
Glide	79 kts	Idle	Clean
Short Field	63 kts	As required	Flap 40°

Demonstrated crosswind ability 17K