



Piper Twin Comanche Annual Inspection Survey



<u>Left</u>	<u>Right</u>	<u>50 Hr</u>	<u>100 Hr</u>	<u>PROPELLER GROUP</u>
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect spinner and backplate for cracks
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect prop blades for nicks and cracks
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect for grease and oil leaks
<input type="checkbox"/>	<input type="checkbox"/>		X	Lubricate per lube chart in service manual
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect spinner mounting brackets for cracks
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect prop mounting bolts and safety (Check torque if safety is broken)
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect hub parts for cracks and corrosion
<input type="checkbox"/>	<input type="checkbox"/>		X	Check prop air pressure (Check monthly if possible)

<u>Left</u>	<u>Right</u>	<u>50 Hr</u>	<u>100 Hr</u>	<u>ENGINE GROUP</u>
-------------	--------------	--------------	---------------	---------------------

Caution: Ground Magneto Primary Circuite Before Working On Engine (See Note #8)

<input type="checkbox"/>	<input type="checkbox"/>	X	X	Remove engine cowl															
<input type="checkbox"/>	<input type="checkbox"/>		X	Clean and inspect cowling for crack, distortion, loose or missing fasteners															
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Drain oil sump															
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Clean suction oil screen, replace gasket, replace screen and torque to 20-25 ft-lbs (240-300 in-lbs)															
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Change oil filter. Fill engine with 7 quarts Phillips 20W-50 XC oil and 12oz CamGuard															
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect oil temperature sending unit for leaks and security															
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect oil lines for leaks, security, chafing, dents and cracks (See note #7)															
<input type="checkbox"/>	<input type="checkbox"/>		X	Clean and check oil cooler cooling fins															
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect valve covers for evidence of of oil leaks. If found, replace with silicone gaskets and torque cober screws to 50 in-lbs															
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect wiring to engine and accessories. Inspect terminals for security and cleanliness															
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect spark plug cable leads and ceramics for corrosion and deposits. Inspect condition of spark plugs; clean and gap as required. If fouling of plugs is apparent, rotate bottom plugs to upper plugs. Gap to .015-.021" (Light Plane Mx June '91)															
<input type="checkbox"/>	<input type="checkbox"/>		X	Check cylinder compressions (Warm):															
				<table border="0"> <tr> <td></td> <td><u>#1</u></td> <td><u>#2</u></td> <td><u>#3</u></td> <td><u>#4</u></td> </tr> <tr> <td>Left:</td> <td>/80</td> <td>/80</td> <td>/80</td> <td>/80</td> </tr> <tr> <td>Right:</td> <td>/80</td> <td>/80</td> <td>/80</td> <td>/80</td> </tr> </table>		<u>#1</u>	<u>#2</u>	<u>#3</u>	<u>#4</u>	Left:	/80	/80	/80	/80	Right:	/80	/80	/80	/80
	<u>#1</u>	<u>#2</u>	<u>#3</u>	<u>#4</u>															
Left:	/80	/80	/80	/80															
Right:	/80	/80	/80	/80															
<input type="checkbox"/>	<input type="checkbox"/>		X	Check cylinders for cracks or broken cooling fins															
<input type="checkbox"/>	<input type="checkbox"/>		X	Clean engine															
<input type="checkbox"/>	<input type="checkbox"/>		X	Check magneto main points for clearance. Maintain .018+/- .006															
<input type="checkbox"/>	<input type="checkbox"/>		X	Check magneto for oil seal leakage															
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect breaker felts for proper lubrication															
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect distributor block for cracks, burned areas or corrosion and height of contact springs															
<input type="checkbox"/>	<input type="checkbox"/>		X	Check magnetos to engine timing 25° BTC															

<input type="checkbox"/>	<input type="checkbox"/>	X	X	Remove induction air filter, inspect and replace if necessary. Repace Brackett air filter annually regardless of condition
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Remove and clean fuel injector inlet line screen (clean injector nozzles as required with acetone only)
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect injector system for signs of fuel dye indicating leaks
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect alternate air takeoff assembly. Remove air duct hose to inspect door.
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect alternate air inlet valve bracket hinge pinholes for excessive wear
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect intake seals for leaks and clamps for tightness
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect condition of flexible fuel lines
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect fuel system for leaks
<input type="checkbox"/>	<input type="checkbox"/>		X	Check fuel pumps for operation
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect vacuum pumps and lines
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect throttle, alternate air, mixture and prop governor controls for travel and operating condition
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect exhaust stacks and gaskets
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect breather tube for obstructions and security
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect crankcase for cracks, leaks and security of case seam bolts
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect engine mounts for cracks, positioning and loose mounting
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect rubber engine mount bushings for deterioration (See note 12)
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect all engine baffles
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect firewalls for cracks
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect firewall seals
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect condition and tenson of alternator drive belts
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect condition of alternator and starter
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect and replace if necessary vacuum regulator filter. Replace at least annually regardless of condition.
<input type="checkbox"/>	<input type="checkbox"/>		X	Lubricate all controls. Do not lubricate Teflon liners of control cables.

Left **Right** **50 Hr** **100 Hr**

TURBOCHARGER GROUP

<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect all rubber air inlet ducting and compressor discharger ducting for worn spots, loose clamps or leaks
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect fiberglass engine air inlet assembly for cracks, loose clamps and loose screws
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspect waste gate housing, exhaust ducting and exhaust stacksfor signs of leaks or cracks
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Carefully inspect all turbo support brackets, struts, etc. for breakage, sagging or wear
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Inspece all oil lines, fuel lines and fittings for wear, leakage, heat damage or fatigue
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Actuate waste gate control: check spring preload and examine control fr any pending sign of breakage
<input type="checkbox"/>	<input type="checkbox"/>		X	Remove inlet hose to compressor and visually inspect compressor wheel
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect the compressor wheel for nicks, cracks or broken compressor blades
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect for excess bearing drag or compressor wheel rubbing against
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect induction and exhaust components for worn or damaged areas, loose clamps, cracks and leaks
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect turbine wheel for broken blades or signs of rubbing
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect rigging of exhaust waste gates
<input type="checkbox"/>	<input type="checkbox"/>		X	Inspect rigging of alternate air control
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Clean turbocharger oil filter per Turbo Oil Filter Cleaning Procedure, Sectors II of the Service Manual at every oil change
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Run-up engine. Check instruments for smooth, staedy response

Left **Right** **50 Hr** **100 Hr**

CABIN GROUP

<input type="checkbox"/>			X	Remove inspection plates and panels.
<input type="checkbox"/>			X	Inspect cabin entrance door, baggage door and windows for damage, operation and security.
<input type="checkbox"/>			X	Inspect upholstery for tears.
<input type="checkbox"/>			X	Inspect seats, seat belts, securing brackets and bolts. Inspect trim operation.
<input type="checkbox"/>			X	Inspect brake cylinders for operation and leaks. Inspect parking brake.
<input type="checkbox"/>			X	Inspect control wheels, column, pulleys and cables. Check landing,
<input type="checkbox"/>			X	Inspect instruments, lines and attachments.
<input type="checkbox"/>			X	Inspect condition of vacuum operated instruments and operation of electric
<input type="checkbox"/>			X	Inspect altimeter and calibrate system if appropriate.
<input type="checkbox"/>			X	Inspect operation of fuel selector valves and gauges
<input type="checkbox"/>			X	Inspect operation of crossfeed valve
<input type="checkbox"/>			X	Inspect operation of heater fuel valve
<input type="checkbox"/>			X	Inspect oxygen outlets for defects and corrosion
<input type="checkbox"/>			X	Inspect oxygen system operation and components
<input type="checkbox"/>			X	Reinstall inspection plates and panels

Left **Right** **50 Hr** **100 Hr**

FUSELAGE AND EMPANNAGE GROUP

<input type="checkbox"/>			X	Remove inspection plates and panels.
<input type="checkbox"/>			X	Check fluid in brake reservoir, fill as required.
<input type="checkbox"/>		X	X	Inspect battery box and cables. Flush box as required and fill battery per instructions in Servicing Battery, Section II, Service Manual
<input type="checkbox"/>			X	Inspect heater for fuel or fume leaks.
<input type="checkbox"/>			X	Check heater operation hours (Hobbs time as per AD 82-07-03 (Heater AL required every 24 months or 100 hours of operation).
<input type="checkbox"/>			X	Inspect electronic installations.
<input type="checkbox"/>			X	Inspect and replace if necessary central instrument air filter (at least annually)
<input type="checkbox"/>			X	Inspect bulkheads and stringers for damage.
<input type="checkbox"/>			X	Inspect loop and loop mount, antenna mount and electric wiring
<input type="checkbox"/>			X	Inspect ELT installation and antenna condition. Change batteries in ELT (Req'd yearly).
<input type="checkbox"/>			X	Inspect fuel lines and valves for damage and operation.
<input type="checkbox"/>			X	Inspect security of all lines.
<input type="checkbox"/>			X	Inspect stabilator fin and rudder surfaces for damage.
<input type="checkbox"/>			X	Inspect stabilator bearings and horns for damage and operation (refer to latest Piper Service Bulletin No. 464).
<input type="checkbox"/>			X	Inspect rudder hinges, horn and attachments for damage and operation. Inspect rudder trim mechanism, lubricate.
<input type="checkbox"/>			X	Inspect stabilator trim mechanism, lubricate.
<input type="checkbox"/>			X	Inspect stabilator free play (refer to Service Manual, Section IV).
<input type="checkbox"/>			X	Inspect aileron, rudder, stabilator, trim cables, turnbuckles, guides and pulleys for safeties, damage and operation.
<input type="checkbox"/>			X	Inspect rotating beacon for wear, etc.
<input type="checkbox"/>			X	Lubricate per lubrication chart in Service Manual.
<input type="checkbox"/>			X	Inspect security of Autopilot bridle cable clamps.
<input type="checkbox"/>			X	Reinstall inspection plates and panels.

<u>Left</u>	<u>Right</u>	<u>50 Hr</u>	<u>100 Hr</u>	<u>WING GROUP</u>
<input type="checkbox"/>			X	Remove inspection plates and fairings.
<input type="checkbox"/>			X	Inspect wing, aileron and flap surfaces for damage, cracks, loose rivets, and condition of wing tips.
<input type="checkbox"/>			X	Inspect condition of Wing walk
<input type="checkbox"/>			X	Inspect aileron attachments and hinges for damage, looseness and operation.
<input type="checkbox"/>			X	Inspect aileron cables, pulleys, belleranks and control rods for corrosion, damage, and operation.
<input type="checkbox"/>		X	X	Inspect flap attachments, tracks and rollers for damage, looseness and operation. Clean tracks and rollers.
<input type="checkbox"/>			X	Inspect flap cables, pulleys, step lock, belleranks and control rods for corrosion, damage and operation.
<input type="checkbox"/>			X	Lubricate per lubrication chart in Service Manual.
<input type="checkbox"/>			X	Inspect wing attachment bolts and brackets.
<input type="checkbox"/>			X	Inspect engine mount attaching structure.
<input type="checkbox"/>			X	Inspect fuel cells and lines for leaks and water.
<input type="checkbox"/>			X	Inspect fuel vents.
<input type="checkbox"/>			X	Inspect switches to indicators registering fuel cell quantity
<input type="checkbox"/>			X	Inspect fuel cell vents.
<input type="checkbox"/>			X	Inspect thermos type fuel cap rubber seals for brittleness and deterioration.
<input type="checkbox"/>			X	Inspect for exhaust corrosion in wing panel cavity.
<input type="checkbox"/>			X	Reinstall inspection plates and fairings.

<u>Left</u>	<u>Right</u>	<u>50 Hr</u>	<u>100 Hr</u>	<u>OPERATIONAL INSPECTION</u>
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check fuel pump and fuel tank selector operation.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check indication of fuel quantity and pressure or flow gauges.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check oil pressure and temperature indications.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check alternator output.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check manifold pressure indications.
<input type="checkbox"/>		X	X	Check operation of brakes and parking brake.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check operation of vacuum gauge and L/R indicators.
<input type="checkbox"/>		X	X	Check gyros for noise and roughness.
<input type="checkbox"/>		X	X	Check cabin heat operation.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check magneto switch operation.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check throttle and mixture operation.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check engine idle.
<input type="checkbox"/>	<input type="checkbox"/>	X	X	Check propeller smoothness and governor action.
		X	X	Check electronic equipment operation.
		X	X	Check operation of controls and flaps.
		X	X	Check override function of auto-pilot.
		X	X	Check operation of Pitch Trim System.

<u>Left</u>	<u>Right</u>	<u>50 Hr</u>	<u>100 Hr</u>	<u>GENERAL</u>
<input type="checkbox"/>		X	X	Aircraft conforms to FAA specifications.
<input type="checkbox"/>		X	X	All FAA AD's complied with.
<input type="checkbox"/>		X	X	All Manufacturer's Service Letters and Bulletins complied with.
<input type="checkbox"/>		X	X	All aircraft papers in proper order.