

N604X Condition Inspection Checklist

Aircraft: Shultz Sonex, SN 604
Registration: N604X

Engine Type: AeroVee 2180, SN 258
Propeller Model: Sensenich W54LVG-44G

Date:	
Total Airframe Hours:	
Total Engine Hours:	
Total Propeller Hours:	

Preparation – Inspection Consumables

Oil	Pennzoil (Automotive) 20W-50
Oil Sample Kit	Aviation Laboratories (Aircraft Spruce)
Spark Plugs	8 - Autolite MP4163
ELT Batteries	8 - Duracell MN1300 alkaline D-cell (every 2 years)
Air Filter Cleaner	K&N 99-5000 (Cleaner only)
Wheel Bearing Grease	High Quality Synthetic Wheel Grease
Lubricating Spray	LPS-2 (or comparable light lubricant)
Shop Supplies (Towels, Zip Ties, Safety Wire)	

Correct All Unsatisfactory Items Prior To Flight	SAT	UNSA T	Notes
General:			
Verify Registration/Airworthiness/Operation Limitations are Current and in the Aircraft			
Aircraft Identification Plate Installed			
All Cockpit Placards and Labels are Installed and Legible			
Experimental & Passenger Warning Placards Installed			

Verify Pilot Operating Handbook and Cockpit Checklist are in the Aircraft			
Verify Weight and Balance/Equipment List is Current and in the Aircraft			
Review Airworthiness Directives for Applicability and Compliance			
Review Service Bulletins/Letters for Compliance			
Empennage:			
Remove Inspection Plates and Tail Fairing			
Inspect Vertical Fin Attach Points			
Inspect Elevator/Stabilizer Attach Points			
Inspect Empennage Interior for Corrosion and Condition			
Inspect Rear Fuselage Interior Including Tailwheel Mount for Integrity			
Inspect Rudder Cables and Fairleads for Chaffing, Wear, and Damage			
Inspect Elevator Control Horn for Cracks and Corrosion			
Inspect Trim Tab, Cable, and Cable Attachment for Security and Wear			
Inspect Hinges and Hinge Pins for Attachment and Wear			
Inspect Rudder Horn and Control Stops for Cracks and Damage			
Re-install Inspection Plates and Tail Fairing with Locktight			
Inspect Tail Wheel and Tail Wheel Yoke for Condition and Wear			
Inspect Tail Wheel Steering Arm and Rod Ends for Condition and Security			
Clean and Lubricate Tail Wheel, Tail Wheel Yoke, and Rod Ends			
Wings:			
Remove Inspection Plates			
General Inspection of the Exterior/Interior of Wing			
Inspect for Corrosion			
Inspect for Popped Rivets, Cracked or Deformed Skin			
Inspect Aileron Bellcrank for Wear and Security			

Inspect Flight Controls for Proper Attachment (No Play or Slop)			
Inspect Flight Control Hinges/Rod End Bearings for Serviceability			
Inspect Flight Control Bolts/Pins for Safety and Condition			
Inspect Flight Controls Properly Rigged			
Lubricate Hinges, Rod Ends, and Aileron Bellcrank			
Re-install Inspection Plates			
Fuselage:			
Remove Inspection Plates and Panels			
Inspect Fuselage Exterior for Popped Rivets and Cracked Skin			
Remove Seat and Seat Cushions			
Inspect Seats, Seat Belts/Shoulder Harness for Condition and Security			
Clean Interior of Cabin Including Under Seat and Baggage Area			
Inspect Rudder Pedals for Operation and Security			
Inspect Fire Wall (cockpit side) for Loose Wires and Chafing Lines			
Inspect Under Panel for Loose Wires and Chafing Lines			
Inspect Radios/Leads/Wires for Attachment and Security			
Inspect Fuel Tank for Leaks, Chaffing, or Cracks			
Inspect Fuel Probe for Leaks, Ground Wire, and Security			
Inspect Fuel Line for Condition and Hose Clamps for Security			
Inspect Fuel Shutoff Valve for Condition, Leaks, and Freedom of Movement			
Inspect NACA Vents and SCAT Tubing for Condition and Security			
Inspect Brake, Flap, and Trim Levers for Condition, Security, and Freedom of Movement			
Inspect Instruments and Panel for Condition and Security			
Insure Instruments Are Properly Marked / Labeled			
Lubricate Brake, Flap, and Trim Levers			
Inspect Wing Root Area (inside cockpit) Including Pitot / Static Plumbing			

Inspect Wing Attach Structure, Including Attach Angles, Bolts, Nuts, and Cotter Pins			
Inspect Under-Seat structure for Deformation and Condition			
Inspect Control Stick Assembly for Condition, Security, and Freedom of Movement			
Lubricate Control Stick Assembly			
Inspect COMM and ELT Antennas for Corrosion, Condition, and Security			
Inspect ELT and Mount for Corrosion, Condition, and Security			
Inspect ELT Battery Date Existing Battery Installed: _____ Estimated Cumulative Battery Usage: _____			
Replace ELT Battery as Needed Date New Battery Installed: _____			
Inspect Canopy and Latching Mechanism			
Inspect Elevator Idler Assembly for Condition and Wear			
Lubricate Elevator Idler Arm			
Re-install Seat and Seat Cushions			
Engine:			
Remove Cowling			
Clean Cowling Interior and Inspect for Cracks / Heat Damage			
Perform Periodic Maintenance per AeroVee Assembly Manual			
Perform Compression Test #1 _____ #2 _____ #3 _____ #4 _____			
Change Oil and Clean/Replace Filter Screen (Check for Metal)			
Inspect Ignition and Wiring Harness for Condition and Continuity			
Clean and Gap Spark Plugs: Top Plugs 0.018", Bottom Plugs 0.032" Apply Anti-seize Lube and Torque to 240 in-lbs			
Inspect Engine Mount/Bushings			
Inspect Engine Case, Accessory, and Mounting Bolt Torque			
Inspect Engine To Airframe Ground Wire for Corrosion and Security			
Inspect Engine for Leaks at all Seals, Sensors, and Gaskets			
Inspect Cylinders for Cracks/Broken Fins/Exhaust Stains			

Inspect Engine Baffles for Cracks/Condition			
Inspect Oil Cooler and Oil Cooler Lines for Leaks and Security			
Inspect Air/Oil Separator and Engine Breather Line for Condition and Security			
Inspect Carburetor, Boot, and Clamps for Condition and Security			
Clean Air Filter Element with K&N Filter Cleaner			
Inspect Intake Manifold and Seals for Security/Leaks			
Inspect Throttle & Mixture Controls for Proper Travel and Security			
Inspect Exhaust Pipes/Flanges/System for Security, Attachment and Condition			
Fuel System:			
General Inspection for Corrosion/Contamination			
Inspect Fuel Lines for Chafing/Leaks/Security/Condition			
Inspect Fuel Cap for Condition and Security			
Insure Fuel Placard Properly Affixed and Legible			
Inspect Fuel Tank Vent System			
Clean Gascolator Bowl and Screen & Flush System			
Electrical:			
Battery Serviced and Free From Corrosion			
Battery Box Free From Corrosion			
Inspect Battery Contactor and Relays for Condition and Security			
Inspect Firewall Wiring for Chaffing, Condition, and Security			
Inspect All Wire Bundles for Chaffing, Condition, and Security			
Inspect Fuse and Ground Blocks for Cracks and Security			
Inspect Fuses for Condition			
Propeller:			
Check Spinner for Condition and Security			
Inspect Prop for Cracks/Stone Damage/Nicks			
Check Prop for Delamination (particularly hub area)			

Retorque Prop Bolts to 200 in-lbs, +/- 25 in lbs			
Check Prop Tracking			
Rebalance Prop After Making Any Repairs			
Landing Gear:			
Inspect Gear Leg Attachment Sockets and Bolts for Condition			
Remove Wheel Pants and Gear Leg Fairings			
Inspect Wheel Pants and Gear Leg Fairings for Cracks and Damage			
Inspect Wheels for Alignment			
Remove Wheel and Brakes			
Inspect Wheel/Tires for Cracks and Serviceability. Rotate/ Replace as Needed			
Inspect Brake Shoes for Wear and Condition. Verify Brake Linings are within Limits			
Inspect Brake Cable for Wear, Condition, and Security			
Clean and Lubricate Axels and Wheel Bearings			
Check Tire Pressure; Fill to 30 psi			
Re-install Wheels and Cotter Pins			
Re-install Wheel Pants and Gear Leg Fairings w/Locktight			
Operational Inspection:			
Visual Inspection of the Engine/Propeller			
All Inspection Panels and Fairings Secure			
Proper Fuel In Tanks			
Idle Rpm/Mixture Check RPM: _____			
Static Rpm Check RPM: _____			
Paperwork:			

