

NXXXXX

3-Nov-2024

# <NAME> <Aircraft Type> Annual Condition Inspection / Pre-Buy Examination Checklist

<b>AIRCRAFT INFO</b>	
Aircraft Serial #	
Inspection Location	
Inspection Performed By	Marc J. Zeitlin A&P #3052594
Airframe Hours (TTAF)	
Engine Hours (SMOH)	
Propeller Hours	

<b>CONSUMABLES</b>	<b>DESCRIPTION</b>
Oil	Aeroshell 15W-50, Phillips XC 20W-50, Aeroshell W100+ or equivalent
Oil Filter	CH48108-1 or equivalent
Oil Test Sample Kit	Aviation Oil Analysis, Blackstone Oil Analysis or equivalent
Wheel Bearing Grease	Any good synthetic wheel bearing grease (Mobil - 1)
Nose Tire / Tube	2.50/2.80 x 4 or 10-3.50 x 4
Main Tires / Tubes	11-4.00 x 5 or 5.00 x 5
Brake Pads	Rapco, Cleveland, Matco, Grove
Brake Fluid (MIL-H-5606-H, MIL-H-83282, MIL-PRF-87257, or DOT-3, DOT-4, DOT-5)	<b>MUST BE SAME AS ALREADY INSTALLED - MIL FLUIDS (all compatible) ARE NOT COMPATIBLE W/DOT-X ; DOT-X NOT INTERCHANGEABLE</b>
Air Filter / Recharge Kit	
Spark Plugs - Upper	
Spark Plugs - Lower	
Solvent (FI restrictors)	Hoppes #9 Cleaner / Stoddard Solvent

<b>LIFE LIMITED</b>	<b>PROCEDURE / ACTION</b>	<b>DUE</b>
Aircraft Cleanliness	Clean aircraft per 14 CFR Part 43 Appendix D(a) - exterior, interior, engine compartment, brakes, wheels, axles, etc.	
Seatbelts	10 Year Lifetime	
Main Battery	4 - 6 Year Lifetime	
ELT Batteries	Per 91.207(c) - Check batt. date	
ELT Remote Switch Battery	Per 91.207(c) - Check batt. date	
406 MHz ELT Re-registration	Check registration date	
FAR 91.413 Transponder /Encoder Check	2 Years	
FAR 91.411 Static Check	2 Years	
Left Magneto	500 hr. Inspection / Rebuild - due XXXX hrs	
Right Magneto	500 hr. Inspection / Rebuild - due XXXX hrs	
EI Spark Plug Ignition Wires - Top	LSI - 500 hr. / 10 Year Lifetime; Emagair - 180 Ohms/ft.; - Replace if necessary - due XXX hrs. or <XX/XX>	
EI Spark Plug Ignition Wires - Bottom	LSI - 500 hr. / 10 Year Lifetime; Emagair - 180 Ohms/ft.; - Replace if necessary - due XXX hrs. or <XX/XX>	
Slick Mag SB1-15A	Check if applicable	
Vacuum Pump	500 hr. Replacement/Rebuild - due XXXX hrs	
Nose Wheel Bearing Grease	300 hr. or at tire replacement - due XXXX hrs	

**NXXXXX**

**3-Nov-2024**

Main Wheel Bearing Grease	300 hr. or at tire replacement - due XXXX hrs	
Fuel Hoses	1000 hr. / 8 Year Lifetime (Rubber) - Replace if necessary - due XXX hrs or <XX/XX>	
Oil Hoses	1000 hr. / 8 Year Lifetime (Rubber) - Replace if necessary - due XXX hrs or <XX/XX>	
Brake Fluid (MIL-H-5606-H, MIL-H-83282, MIL-PRF-87257, or DOT-3, DOT-4, DOT-5)	5 Year Lifetime - Flush / Replace	
Alternator Belt	5 Year Lifetime	
Engine Driven Fuel Pump	At TBO / 10 Year Lifetime - due <XX/XX>	
MSA Carburetor	At TBO / 10 Year Lifetime - due <XX/XX>	
Lycoming SB 388C / SII485A (1998 prior)	Every 400 / 1000 hours - due XXXX hrs	
Electric Fuel Pump Filter	500 hr. / 2 Year Lifetime - due XXX hrs. or <XX/XX>	
O2 Tank Recertification	5 Year Lifetime	

ITEM	PROCEDURE / ACTION	RESULT
<b>Documents / Placards</b>	<i>Examine Documents / Placards</i>	
Paperwork Envelope	Check condition, visibility per 91.203(b)	
Review AC, Registration, Op. Limits	Check all in order	
Review W&B / Equipment List	Check and update if necessary	
Review Airframe / Engine / Prop Logbooks	Check condition and compliance with FAR 91.417	
Review AD List	Comply if deemed necessary	
Review SB / Plans Changes List	Comply if deemed necessary	
Dataplate	Check condition and compliance with FAR 45.13	
"Experimental" Placard	Check condition and compliance with FAR 45.23(b)	
Instrument / Switch Labeling	Check condition	
Passenger Warning	Check condition and compliance with OL's	
Registration Markings	Check "N" numbers for compliance with FAR 45.21	

ITEM	PROCEDURE / ACTION	RESULT	
<b>Canard Area</b>	<i>Remove Front / Rear Nose Doors (canard if necessary)</i>	<b>L</b>	<b>R</b>
Static Ports	Check clear all three holes each side		
Elevator Torque Tube Attach Bolt	Check for rust/corrosion/torque – lubricate if necessary		
Elevator Inner Hinge	Check for corrosion – lubricate if necessary		
Elevator Middle Hinge #1	Check for corrosion – lubricate if necessary		
Elevator Middle Hinge #2	Check for corrosion – lubricate if necessary		
Elevator Outer Hinge	Check for corrosion – lubricate if necessary		
Elevator Center Hinge	Check for corrosion – lubricate if necessary		
Elevator Hinge Pin Set Screw	Check for rust / corrosion / torque – lubricate if necessary		
Elevator(s) Top Surface	Check for delamination / paint condition		
Elevator(s) Bottom Surface	Check for delamination / paint condition		
Elevator(s) Weight & Balance	Check for appropriate weight and balance		
Sparrow Strainer Trim Tab	Check condition		
Elevator Deflection - Velocity	Check for 24 - 26 deg up / 28 deg down @ TE		
Elevator(s) Deflection - Roncz	Check for 26 - 30 deg TE down / 12.5 - 15.5 deg TE up		
Elevator(s) Deflection - GU	Check for 20 - 24 deg TE down / 18 - 22 TE up		
Elevator Span - Varieze	Check Span - Short GU: 140"		
Elevator Span - Varieze	Check Span - Standard GU: 148"		
Elevator Span - Long-EZ	Check Span - GU: 140"		
Elevator Span - Long-EZ	Check Span - Roncz: 130"		

GU  
COZY III  
Roncz  
  
Velocity  
Velocity  
Roncz  
GU  
Varieze  
Varieze  
Long-EZ  
Long-EZ

**NXXXXX**

**3-Nov-2024**

COZY III	Elevator Span - COZY III	Check Span - GU: 148"		
COZY III	Elevator Span - COZY III	Check Span - Roncz: 142"		
COZY MKIV	Elevator Span - COZY MKIV	Check Span - Original: 147"; Revised: 141"		
	Elevator Clearance to Fuselage	Check for 0.060" - 0.10" clearance		
	Elevator Clearance to Canard Tip	Check for 0.060" - 0.10" clearance		
	Elevator Torque Tube	Check condition		
Roncz	Elevator Torque Tube Offset	Check condition / welds		
	Elevator Inner Counterweight	Check condition		
	Elevator Outer Counterweight	Check condition; check for 0.060" - 0.10" clearance		
Velocity	Elevator Trim Attach Point	Check condition / welds		
Velocity	Elevator Trim Actuator	Check condition / wiring		
Velocity	Elevator Trim Davenport Spring	Check condition / welds		
Velocity	Auto Pilot Pitch Actuator	Check condition / wiring		
Velocity	A/P Control Box	Check condition / wiring		
	Elevator Trim Belcrank	Check condition / welds		
	Elevator Trim Davenport Spring	Check condition		
Tandem	Elevator Down Hard Stop	Check		
	Canard Top Surface	Check for delamination / paint condition		
	Canard Vortex Generators	Check condition		
	Canard Bottom Surface	Check for delamination / paint condition		
Varieze	Canard Span - Varieze	Check Span - GU: Short - 142"		
Varieze	Canard Span - Varieze	Check Span - GU: Standard - 150"		
Long-EZ	Canard Span - Long-EZ	Check Span - GU: 142"		
Long-EZ	Canard Span - Long-EZ	Check Span - Roncz: 134" / 140" (LE/TE)		
COZY III	Canard Span - COZY III	Check Span - GU: 150"		
COZY III	Canard Span - COZY III	Check Span - Roncz: 146"		
COZY MKIV	Canard Span - COZY MKIV	Check Span Original: 151" @LE; Revised: 145" @LE		
	Canard Torque Tube Weather Seal	Check condition		
	NACA air inlet	Check condition		
	Canard Cover	Check for delamination / paint condition; check fasteners		
Velocity	Oil Cooler NACA Air Inlet	Check condition		
	Canard Lift Tabs / F22 Bushing	Check condition		
	Lift Tab Bolt	Check condition		
	Alignment Pins / Socket	Check condition		
Velocity	Canard Forward Upper Attach Points	Check condition		
Velocity	Canard Aft Attach Points	Check condition		
Velocity	Canard Fwd / Aft Attach Bolt	Check condition		
Velocity	Canard Lift Tabs	Check condition		
Velocity	Canard Lift Tab Bolts/Washers	Check condition		
	Marker Beacon Antenna Cable	Check condition		
	VOR Antenna Cable	Check condition		

<b>ITEM</b>	<b>PROCEDURE / ACTION</b>	<b>RESULT</b>
<b>Nose Area</b>	<b><i>Remove Front / Rear Nose Doors, Canard Cover</i></b>	
Front Nose Door	Check condition / ¼ turn fasteners / screws	
Landing / Taxi Light Lenses	Check condition – clean / polish	
Landing / Taxi Lights	Check operation / condition / alignment / bolt torque	
Ballast Weights and mounting	Check condition	

NXXXXX

3-Nov-2024

Velocity  
Velocity  
Velocity

Pitot Tube	Check condition		
Nose Bumper	Check condition		
Rear Nose Door	Check condition / ¼ turn fasteners / screws		
Parking Brake Valve / Actuator	Check condition / fittings		
Heater SCAT hose	Check condition		
Oil Cooler	Check condition / hard lines		
Oil Cooler Door	Check condition / operation		
Battery Charge Port	Check condition / wire connections		
Piper Battery Jumper Connector	Check condition		
Jumper Solenoid and Switch	Check condition / operation		
Master Solenoid	Check condition		
Starter Solenoid	Check condition		
Voltage Regulator	Check condition - test OV (B&C, pin 6 to pin 2)		
VPX Sport / Pro	Check condition / wiring		
Nose Battery / Charging Cables	Check condition		
Ammeter Shunt / Sensor Coil	Check condition / wiring		
Nose Gear Cover	Check attachment / weather seal		
Nose Gear Mechanism (Wilhelmson Pivot Bolts)	Check condition / operation – lubricate / grease if necessary		
Skyvector ADSB Receiver	Check condition / attachment / cable		
Altitude Encoder	Check condition		
Other Antennae / EFIS Boxes	Check condition / attachment / cable		
GPS Antenna	Check attachment / cable		
Transponder Antenna	Check attachment / cable		
APRS / Bionics GPS Antenna	Check attachment / cable		
Dynon EDC-10A Mag. Compass	Check condition		
ELT Mounting	Check condition		
ELT Operations	Check operation per FAR 91.207(d)		
Nose Area Wiring	Check condition / tie-wraps		
		<b>L</b>	<b>R</b>
Rudder Pedals	Check condition – lubricate if necessary		
Rudder Pedal Brake Actuators	Check condition / geometry		
Rudder Cables	Check condition		
Brake Reservoirs	Check condition / bolt torque / fluid level		
Brake Master Cylinders	Check condition / fittings		
Brake Lines	Check condition / fittings / routing / age		
Rudder In-Line Compression Spring	Check condition		
Nose Gear Strut	Check condition		
Nose Gear Upper Bearings - NG6A / NG6	Check condition / side play / lubricate bearings if necessary		
Nose Gear Mechanism Spring	Check condition / compression		
Upper Nose Gear Bolts (Attach Plate)	Check condition / bolt torque		
NG-3 / NG-4 Brackets / Retention Bolt	Check condition / bolt torque		
Nose Gear Lower Casting / Geometry	Check condition / bolt torque / floc fill		
Nose Gear Wheel / Tire	Check condition – inflate to 60 to 70 psi - grease wheel bearings if necessary		
Nose Gear Steering Rotation	Check condition / rotation force level – set to 2 - 4 lb. at axle		
Nose Gear Relays / Electrics	Check condition / wiring		
External Temperature Probe	Check condition		
Nose Gear Doors	Check condition and hinge / spring operation		
Nose Gear Wheel Well / Windows	Check condition		
Velocity	Landing Gear Hydraulic Power Pack		
Velocity	Landing Gear Electric Controller / Relays		

**NXXXXX**

**3-Nov-2024**

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Nose Gear Pivot Attachment	Check condition / side play / lubricate bearings if necessary	
Nose Gear Lower Fork	Check condition	
Nose Gear Steering Rotation	Check condition / rotation force level – set to ~10 - 12 lb @ axle	
Landing Gear Swing	Check operation	
Nose Gear Door Mechanism / Actuator	Check condition / operation	

<b>ITEM</b>		<b>PROCEDURE / ACTION</b>		<b>RESULT</b>	
	<b>Top Fuselage / Front of Instrument Panel</b>	<i>Remove Fuselage Top and Instrument Panel Cover (canard if necessary)</i>		<b>L</b>	<b>R</b>
COZY	Left / Right Elevator Pushrods	Check condition / play / QD's			
	Left / Right Air Vents	Check condition / clean			
	All Side Wiring	Check condition / tie wraps			
Tandem	Elevator Pushrod	Check condition / play / QD's			
	Fuse / Ground Buses	Check condition			
	Alarm Relay	Check condition			
	Piezo Alarm Buzzer	Check condition			
	Dimmer Circuitry	Check condition			
	Manifold Pressure Sensor	Check condition			
	Pitch Trim Motor / Extension Screw / Relay	Check condition / clean and lubricate per manual			
	Manual Pitch Trim	Check condition			
	AP Pitch Servo	Check condition / wiring			
	Nose Gear Emergency Extend Mechanism	Check condition			
	Circuit Breakers	Check condition / wiring			
	Power Panel	Check condition / wiring			
	Ammeter Shunt / Sensor Coil	Check condition / wiring			
	Switch Wiring	Check condition			
	Instrument Wiring	Check condition			
	Strobe Power Supply	Check condition			
	Altitude Encoder	Check condition			
	FWD side of all EFIS / EMS / Instruments	Check condition			
	Top Fuselage Drain Line	Check condition			
	Floor Water Drain Holes	Check condition / Clear through			
	Heat Duct	Check condition			
	Instrument Screws	Check condition / torque			
	Hobbs Air Pressure Switch	Check condition			
	Vacuum Filter	Check condition / hose clamps			
	Vacuum Regulator	Check condition / tubing			
	Vacuum Hoses	Check condition / hose clamps			
	Pitot / Static lines	Check condition / hose clamps			
	Fuselage Top	Check condition			
	Fuselage Top Hinges	Check condition / lubricate if necessary			
	Fuselage Top Screws	Check condition			
	Instrument Panel Access Cover	Check condition			

<b>ITEM</b>		<b>PROCEDURE / ACTION</b>		<b>RESULT</b>	

NXXXXX

3-Nov-2024

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<b>Fuselage Bottom</b>		<i>Remove Landing Gear Cover, Extend Landing Brake, Remove Wheel Pants; Aircraft on Jacks</i>		L	R
Landing Gear Strut	Check condition				
Landing Gear Strut Attach Points	Check condition				
Gear Leg / Fuselage Fairings	Check condition				
Gear Leg Fairings	Check condition				
Landing Gear Strut Pivot Point	Check condition / operation				
Landing Gear Strake Wheel Well	Check condition				
Landing Gear Swing	Check operation				
Landing Gear WOW / Airspeed Lockout	Check operation				
Landing Gear Reset Switch / Button	Check operation				
Wheel / Brake / Brake Pads	Check condition - replace pads / grease bearings as necessary				
Tires	Check condition - inflate to 55 - 60 psi				
Axle Bolts / Nuts	Check condition				
Brake Lines	Check condition / age				
Brake Line Bulkhead Fittings	Check condition				
Heat Shield / Gear Leg Insulation	Check condition				
Wheel Pants	Check condition				
Rear Seat NACA Air Intake - Exterior	Check condition				
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Landing Brake Surfaces	Check condition				
Landing Brake Mechanism	Check condition – lubricate inside and out if necessary				
COM Antenna	Check condition / wiring				
NACA Scoop	Check condition				
External Temperature Probe	Check condition				
Hellhole Access Panel	Check condition				
Landing Gear Cover	Check condition				

Tandem  
COZY MKIV

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<b>ITEM</b>		<b>PROCEDURE / ACTION</b>		<b>RESULT</b>	
<b>Front Cockpit</b>		<i>Remove Front Seats, Front Armrests, Front Center Console Cover, Fuel Valve Cover, All Access Panels</i>		L	R
Fuselage Side Access Door	Check condition				N/A
Seatbelts	Check condition				
Electric Seat Heaters	Check condition / operation				
Control Sticks	Check condition – lubricate if necessary				
PTT / Control Stick wiring	Check condition				
Torque Tubes/ Bearings	Check condition				
Left / Right Air Vent Outlets	Check condition / clean				
Seatbelts	Check condition				
Electric Seat Heater	Check condition / operation				
Control Stick	Check condition – lubricate if necessary				
PTT / Control Stick wiring	Check condition				
Torque Tubes/ Bearings	Check condition				
Front Pushrod Belcrank	Check condition				
Front / Rear Stick Connecting Pushrod	Check condition				
Circuit Breakers	Check condition				
Fuse / Ground Buses	Check condition				
Front Cockpit Wiring / Conduits	Check condition / tie wraps				
IP Operation - all switches, instruments, avionics operational	Check condition				
Primer / Primer Lines	Check condition				
Fixed Step	Check condition				

**NXXXXX**

**3-Nov-2024**

	Retractable Step	Check condition – lubricate if necessary		
	Retractable Landing Light	Check condition / operation – lubricate if necessary		
	Altitude Encoder	Check condition		
	ELT Mounting	Check condition		
	ELT Operations	Check operation per FAR 91.207(d)		
	G5 Backup Battery	Test Capacity		
	EFIS ADHRS	Check condition / wiring		
	EFIS Magnetometer	Check condition / wiring		
	Manual Landing Brake Handle / Mechanism	Check condition – lubricate inside and out if necessary		
	Parking Brake Actuator	Check condition		
	Manual Roll Trim	Check condition – lubricate if necessary		
	Electric Roll Trim	Check condition – lubricate if necessary		
	Throttle / Mixture / Carb Heat Quadrant	Check condition – adjust/lubricate if necessary		
	Throttle / Mixture / Carb Heat Verniers	Check condition – adjust/lubricate if necessary		
Velocity	Throttle / Mixture / Carb Heat / Prop Verniers	Check condition – adjust/lubricate if necessary		
Velocity	Door Frame / Transparency / Windows	Check condition		
Velocity	Door Gas Spring	Check condition		
Velocity	Door Latch Mechanism	Check condition - adjust if necessary		
Velocity	Door Seal	Check condition		
Velocity	Door Hinges / Screws	Check condition		
Velocity	Seats / Seat Rails	Check condition		
Velocity	Front Windscreen	Check condition		
Velocity	Overhead Switch Panel	Check condition / operation		
Velocity	Gear Emergency Blow Down Valve	Check condition / operation		
Velocity	Nose Gear Hydraulic Actuator / Mechanism	Check condition / operation		
Velocity	Nose Gear Hydraulic Hoses	Check condition / age		
Velocity	Fuel Valve Actuator Cable	Check condition - lubricate if necessary		
Velocity	Parking Brake Cable	Check condition / operation		
Velocity	Heat Cable Actuator	Check condition - lubricate if necessary		
	Hobbs Meter	Check condition / wiring		
	Fire Extinguisher	Check condition / date / gauge / (>XX g/oz weight)		
	O2 Tank Mounting / Lines / QD's	Check condition		
	O2 Tank	Check condition / date		
	Canopy Frame / Transparency / Windows	Check condition		
Tandem	NACA Air Intake / Shutoff	Check condition		
Tandem	Canopy Hold Mechanism	Check condition		
	Canopy Gas Spring / Lock	Check condition		
	Canopy Latch / Safety Catch Mechanism	Check condition - adjust if necessary		
	Canopy Seal	Check condition		
	Canopy / Gear / Throttle Warning Circuit	Check operation / condition		
	Canopy Hinges / Screws	Check condition		
	Fuel Valve	Check condition - lubricate if necessary		
Varieze	Fuel Valve Handle / Torque Tube	Check condition - lubricate if necessary		
	Heat Cable Actuator	Check condition - lubricate if necessary		

ITEM	PROCEDURE / ACTION	RESULT	
<b>Rear Cockpit</b>	<i>Remove Rear Seats, Landing Brake Mechanism Cover, Rear Firewall Cover, Rear Armrests, Rear Center Console / Keel Covers, All Access Panels</i>	<b>L</b>	<b>R</b>

**NXXXXX**

**3-Nov-2024**

	Fuel Sight Gauges - Strakes	Check condition		
COZY	Underseat Area	Check condition		
Velocity	Baggage Area	Check condition		
	Fuel Senders / Wires	Check condition - recalibrate if necessary		
COZY	Torque Tubes / Bearings	Check condition		
COZY	Seatbelts	Check condition		
COZY	Seatback	Check condition		
COZY	Seat Bottom	Check condition		
Velocity	Seats / Seat Rails	Check condition		
	Air Vents	Check condition / clean		
Tandem	Torque Tubes / Bearings	Check condition		
	AP Roll Servo	Check condition / wiring		
Velocity	Aileron Torque Tube Belcrank	Check condition		
Velocity	Aileron Push/Pull Cables	Check condition		
Tandem	Pitch Trim Motor, Extension Screw, Relay	Check condition - clean and lubricate per manual		
Tandem	Control Stick	Check condition – lubricate if necessary		
Tandem	PTT / Control Stick wiring	Check condition		
Tandem	Throttle Quadrant	Check condition		
Tandem	Seatbelts	Check condition		
Tandem	Seatback	Check condition		
Tandem	Seat Bottom	Check condition		
	Fire Extinguisher	Check condition / date (>XX g/oz weight)		
Varieze	Fuel Sight Gauge - Fuselage Tank	Check condition		
Varieze	Gas Cap / Grounding Strap - Fuselage Tank	Check condition		
	Fuel Sump	Check condition		
	Manual Landing Brake Mechanism	Check condition - lubricate if necessary		
	Electric Landing Brake Actuator / Relay	Check condition / wiring - lubricate if necessary		
	Dynon EDC-10A Mag. Compass	Check condition		
	Primer Lines	Check condition		
	Side Fuel Lines	Check condition		
	ELT Mounting	Check condition		
	ELT Operations	Check operation per FAR 91.207(d)		
	Rear Cockpit Wiring / Conduits	Check condition		
	Actuator Cables / Fuel Lines	Check condition		
Velocity	Left / Right Landing Gear Pivot Bolts	Check condition		
Velocity	Landing Gear Hydraulic Actuator	Check condition / operation		
Velocity	Landing Gear Mechanism / Cables	Check condition / operation		
Velocity	Landing Gear Micro Switches	Check condition / operation / wiring		
	Left / Right Landing Gear Attach Bolts	Check condition		
	Main Spar Condition	Check condition		
	EI Backup Battery	Check condition / clean contacts if required		
	Brake Lines / Bulkhead Fittings	Check condition		
	Cabin Heat Valve	Check condition		
	Firewall Through Holes	Check condition		
	Manifold Pressure Sensor	Check condition		
	Rear Ground Bus	Check condition		
	Rear Essential Bus	Check condition		
	Master Solenoid	Check condition		
	Starter Solenoid	Check condition		
	Voltage Regulator	Check condition - test OV (B&C, pin 6 to pin 2)		
	Dynon Engine Monitor / wiring	Check condition		
	GRT Engine Monitor / wiring	Check condition		



NXXXXX

3-Nov-2024

CGR Engine Monitor / wiring	Check condition	
Hobbs Meter	Check condition / wiring	
Main Battery	Check condition / clean contacts if required	
Ammeter Shunt / Sensor Coil	Check condition	
Strobe Power Supply	Check condition	
Wiring / Antennae	Check condition	
Electroair EI Control Box(es)	Check condition - timing if required	
SDS EFII / EI Control Box(es)	Check condition - timing if required	
FlyEFII System 32 Control Box(es)	Check condition - timing if required	
Lightspeed EI Control Box(es)	Check condition - timing if required	
Fuel Valve / Fuel Lines	Check condition - lubricate if necessary	
Fuel Flow Sender	Check condition / wires / lines	
Electric Fuel Pump tubing / wiring	Check condition	
Electric Fuel Pump Filter	Check condition - Clean if required	

ITEM	PROCEDURE / ACTION	RESULT	
		L	R
<b>Strake / Wing / Winglet</b>	<b><i>Remove Wing Bolt Covers (if required), Wing Root Heat Shields, Aileron Hinge Screws (if required), Top Cowling</i></b>		
Tie Down Anchor / Through Hole	Check condition		
Wing Top Surface	Check condition – delamination tap		
Wing Vortex Generators	Check condition		
Strake Top Surface	Check condition – delamination tap		
Wing Bottom Surface	Check condition – delamination tap		
Strake Bottom Surface	Check condition – delamination tap		
Gas Cap / Retention & Grounding Strap	Check condition		
LE Gas Drain	Check condition – fuel flow		
Fuel Vents	Check condition		
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Aileron Top Surface	Check condition – delamination tap		
Aileron Bottom Surface	Check condition – delamination tap		
Aileron Cove Clearance	Check for 0.060" - 0.10" clearance		
Aileron Tip Clearance	Check for 0.060" - 0.10" clearance		
Aileron Root Clearance	Check for 0.060" - 0.10" clearance		
Aileron Hinges / Screws / Studs-Nuts	Check condition		
Aileron Weight and Balance	Check aileron weight and balance		
Aileron Deflection - Varieze	Check for 1.6" - 2.2" @ outboard TE		
Aileron Deflection	Check for 2.5" +/- 0.3 aileron deflection @ inboard TE		
Aileron Deflection	Check for 1.8" - 2.4" aileron deflection @ inboard TE		
Gurney Flap	Check condition		
Trim Tab	Check condition		
Three Vortilons	Check condition / alignment		
Trailing Edge Fences	Check condition / alignment		
Wing Attach Fittings / Taper Pins / Bolts	Check condition – lubricate if necessary		
Wing Bolts	Check condition – lubricate if necessary		
Wing Retention Pin System	Check condition – lubricate if necessary		
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Winglet Outer Surface	Check condition – delamination tap		
Winglet Inner Surface	Check condition – delamination tap		
Rudder Outer Surface	Check condition – delamination tap		
Rudder Inner Surface	Check condition – delamination tap		
Rudder Tip Clearance	Check for 0.060" - 0.10" clearance		

Varieze  
Velocity

Varieze

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**NXXXXX**

**3-Nov-2024**

Varieze Velocity	Rudder Root Clearance	Check for 0.060" - 0.10" clearance			
	Rudder Deflection - Varieze	Check for 2.5" @ top of rudder TE			
	Rudder Deflection - Velocity	Check for 1.5" - 1.75" @ top of rudder TE			
	Rudder Deflection	Check for 4" - 4.5" at full pedal throw @ lower TE			
Velocity Velocity Not Varieze	Internal Rudder Belhorn / Cable Attach	Check condition			
	External Rudder Belhorn / Cable Attach	Check condition			
	Rudder Return Spring	Check condition – lubricate if necessary			
	Rudder Hard Stop	Check condition			
	Rudder Hinges / Screws / Studs-Nuts	Check condition			
	Baggage Pods	Check condition			
	Baggage Pod Mounting Points	Check condition			
	Wing Root Heat Shields	Check condition			
Aileron Torque Tube / U-joint	Check condition – lubricate if necessary				
Aileron WR Torque Tube Bushing / Bearing	Check condition				
Aileron Push/Pull Cable Attachment	Check condition / operation				
Rudder Cable Upper Pulley	Check condition				
Aileron Torque Tube Belcrank	Check condition – lubricate if necessary				
Aileron Pushrod - Wing Root	Check condition				
Aileron Pushrod Belcrank / Hard Stops	Check condition – lubricate if necessary				
Nav. / Strobe Light	Check condition				
Rudder Cable Nylaflow Entrance	Check condition				

	<b>ITEM</b>	<b>PROCEDURE / ACTION</b>	<b>RESULT</b>
	<b>Engine Compartment</b>	<b><i>Remove Upper and Lower Cowling, Spinner</i></b>	
Tandem Tandem	Engine Mount	Check condition / examine for cracks	
	Engine Mount / Firewall Attach Bolts	Check condition - torque	
	Conical Mounts / Attach Bolts	Check condition - tighten if necessary	
	Dynafocal Mounts / Attach Bolts	Check condition - tighten if necessary	
	Firewall Insulation / Metal Cover	Check condition	
	Firewall Through Holes	Check condition	
	Engine Case Bolts	Check condition - torque	
	Brake Reservoirs	Check condition / bolt torque / fluid level	
	Brake Master Cylinders	Check condition / fittings	
	AP Roll Servo	Check condition / wiring	
	Electric Wright-Hanka Roll Trim System	Check condition / wiring	
	Vacuum Pump / Hoses	Check condition	
	Firewall Ground Bus	Check condition	
	Voltage Regulator	Check condition - test OV (B&C, pin 6 to pin 2)	
	Alternator Mounting	Check condition	
	Starter Mounting / Flywheel & Gear Teeth	Check condition	
	Alternator / Starter Wiring	Check condition	
	Magneto / Wiring	Check condition / timing	
	Tachometer Cable	Check condition	
	Lightspeed EI Coils	Check condition	
	Electroair EI System / Coils	Check condition	
	FlyEFI System 32 EI Coils	Check condition	
	SDS EI Coils	Check condition	

NXXXXX

3-Nov-2024

	Ammeter Shunt / Sensor Coil	Check condition	
	Ignition Wires	Check condition	
	EGT Probes / Wires	Check condition	
	CHT Probes / Wires	Check condition	
	Starter Solenoid	Check condition	
	Fuel Hoses	Check condition	
	Primer Lines	Check condition	
	Fuel Valve	Check condition - lubricate if necessary	
	Gascolator	Check condition – check fittings	
	Fuel Flow Sender	Check condition / wires / lines	
	Fuel Pressure Sender	Check condition / wires / lines	
	Fuel Pressure Regulator	Check condition / lines	
	Electric Fuel Pump tubing / wiring	Check condition	
	Electric Fuel Pump Filter	Check condition - clean if required	
	Fuel Pump - Engine	Check condition	
Injection	Fuel Injector Servo Inlet Screen	Check condition – clean if required	
Injection	Spider Fuel Lines / Fittings / Manifold	Check condition – check fittings	
Injection	Purge Valve	Check condition – check fittings	
Injection	Sniffle Valve	Check condition – check fittings	
Injection	Fuel Injectors	Check condition – braze joints, clamps	
Injection	Fuel Injector Restrictors	Remove / clean at 500 hrs & every 100 hours or CI thereafter	
Injection	Fuel Injector Drain Lines	Check condition	
Injection	Bendix Servo	Check condition – check fittings	
Injection	Precision Airmotive Servo	Check condition – check fittings	
Injection	Airflow Performance Servo	Check condition – check fittings	
Injection	EFI Throttle Body	Check condition – check fittings	
	Ellison Throttle Body	Check condition – check fittings	
	MS Carburetor	Check condition – check fittings	
	MS Carburetor Temperature Sender	Check condition / wires / lines	
	Carb Bowl Drain	Check condition - clean if necessary	
	Fuel Servo / Carb Intake Screen	Check condition - clean if necessary	
	Oil Cooler	Check condition	
	Oil Cooler Louvers / Cable	Check condition	
	Oil Filter / Screen	Check condition	
	Oil Hoses	Check condition	
	Oil Pump Intake Screen	Check condition - clean if necessary	
	Oil Pressure Switch - Hobbs	Check condition	
	Oil Pressure Sender	Check condition / wires / lines	
	Oil Temperature Sender	Check condition / wires / lines	
	Oil Quick Drain	Check for leaks	
	Oil Filler Tube	Check condition / tightness	
	Oil Level	Check level	
	Valve Cover Gaskets	Check condition	
O-235	Valve Lash	Check / Adjust O-235 to 0.010" Cold (0.006" - 0.012")	
	Valve Cover Screws	Check torque (cork 50 in-lb. / silicone 35 in-lb. per SL S272A)	
	Crankcase Vent Line	Check condition	
	Crankcase Vent Line PCV Valve	Check condition - disassemble and clean through hole every 100 hrs or at each CI	
	Oil Separator / Collector	Check condition / drain oil if necessary	
	Throttle Actuator Cable	Check condition – lubricate if necessary	
	Mixture Actuator Cable	Check condition – lubricate if necessary	
	Purge Valve Actuator Cable	Check condition – lubricate if necessary	
	Prop Actuator Cable	Check condition – lubricate if necessary	

Carb Heat Actuator Cable	Check condition – lubricate if necessary	
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ITEM	PROCEDURE / ACTION	RESULT	
<b>Engine Compartment, Continued</b>			
Exhaust System	Check condition		
Heat Muff / SCAT Tubing	Check condition		
Manifold Pressure Sensor Tubing	Check condition		
Air Filter Box	Check condition		
Air Filter	Check condition		
Aluminum Baffling	Check condition - Patch as necessary		
Soft Baffling	Check condition - Patch as necessary		
Cooling Plenum	Check condition - Patch as necessary		
Spark Plugs	Remove - Check condition - clean, measure resistance (aviation - 800 - 1000 Ohm - 5 KOhm bad) and gap to XXX as required or replace		
Engine Cylinder Compression & Borescope Notes	<b>Borescope Notes:</b> 1) 2) 3) 4)	<b>Cylinder Compression</b>	
		1	XX/80
		2	XX/80
		3	XX/80
		4	XX/80
Alternator / Belt	Check condition / tension		
Prop Extension Bolts	Check condition		
Prop Bolts ( / Belleville Washers)	Check condition - torque to XXX ft-lb per XXX - re-safety wire		
Propeller	Check condition – fill nicks w/JB Weld		
Propeller Tracking	Check track within ± 1/16"		
Propeller Balance	Dynamic Balance if necessary		
Spinner	Check condition – alignment marks		
Top Cowl	Check condition		
Bottom Cowl	Check condition		
		<b>L</b>	<b>R</b>
Aileron Torque Tubes / Belcranks / Firewall Bushings	Check condition – lubricate if necessary		
Aileron Firewall Pushrods / Quick Disconnects / Bolts	Check condition		
Velocity Varieze	Aileron Push-Pull Cables	Check condition / operation	
	Aileron Pushrod Belcrank / Hard Stops	Check condition – lubricate if necessary	
	Rudder Cable	Check condition	
Tandem	Rudder Belcrank to Brake MC Cable	Check condition	
	Rudder In-Line Compression Spring	Check condition	
	Rudder Pulleys / Cable Keepers	Check condition – lubricate if necessary	
Tandem	Rudder Cable Belcranks	Check condition – lubricate if necessary	

ITEM	PROCEDURE / ACTION	RESULT	
<b>Operation</b>			
Inspection Panels / Fairings	Check security		
Brake System	Check operation		

**NXXXXX****3-Nov-2024**

Radios / Avionics	Check operation	
Engine Monitoring System	Check operation	
Oil Temperature	Check within limits	
Oil Pressure	Check within limits	
Fuel Pressure	Check within limits	
Instrument Vacuum System Level	Check within limits	
Aux. Fuel Pump	Check pressure within limits	
Fuel Level Gauges	Check operation	
Fuel Flow Gauge	Check operation	
Ignition Switch(es)	Magneto / EI grounding check	
Magnetos / EI's	Check operation	
Propeller C/S Pitch Change	Check RPM / operation	
Alternator	Check voltage / amperage	
Static Runup	Check RPM	
Idle RPM	Check RPM	
Shutoff RPM	Check for rise on leaning before cutoff	
Fuel Selector	Check for engine cutoff in OFF position	
Engine Area	Check for fuel, oil, hydraulic leaks after shutdown	
Cowling	Reinstall - check security	