

Condition Inspection Checklist

Aircraft: VANS RU9A
 Serial Number: 90177 Registration Number: N194RW

Aircraft Owner: VIM
 Date of Inspection: 10-25-2022 Location of Inspection: 634 Cassin St, Independence Air Park

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

HOBBS 286.2

Inspection Performed By: STEVEN ANNEKIND Certificate: 4615791

Preparation — Inspection Consumables

Oil	CUSTOMER WILL CHANGE
Oil filter	" " "
Oil sample kit	
Spark plugs	CLEANED, GAPPED, ROTATED
ELT batteries	DUE JULY 2023
ELT remote battery	N/A
Air filter recharge kit	
Brakes	CHECKED GOOD
Tires/tubes	
Wheel bearing grease	GRASED
Gasket lube	
Light lubricant	

Time-limited items

Item	Last inst. date	Last inst. HOBBS
ELT batteries (replace every 2 years)	DUE 7/23	
ELT remote battery (replace every 2 years)	N/A	
Altitude encoder & transponder certification	10/23/2019	
	DUE 2022	

Empennage & Fuselage Group

- 1) Remove empennage fairing, fuselage inspection covers, wing root fairings, seats, baggage panels f/r, front floorboard
- 2) Inspect vertical stabilizer and horizontal stabilizer spar attach points
- 3) Inspect elevator horns and attachments, and rear fuse bulkheads area, lubricate rod end bearings
- 4) Inspect rudder and vertical stabilizer for corrosion and condition
- 5) Inspect rudder attach bearings for condition/security, lubricate
- 6) Inspect rudder control stops and cable attachments for security and cotter pin
- 7) Inspect rudder light wire for chafing
- 8) Inspect horizontal stabilizer and elevators for corrosion and condition
- 9) Inspect elevator attach bearings for condition/security, lubricate
- 10) Inspect elevator counterbalance weights for security
- 11) Inspect elevator trim tab, arm, and actuator rod
- 12) Inspect static ports are clear
- 13) Inspect rear fuselage interior: check skin/bulkheads for cracking, damage, or corrosion, inspect all wiring & plumbing
- 14) Inspect elevator bellcrank assembly, lubricate rod end bearings

- 15) Re-install rear baggage panels
- 16) Reinstall empennage fairing and rear inspection plates

Landing Gear Group

*completable
BY OWNER*

- 17) Remove wheel pants, upper intersection fairings, gear attach covers
- 18) Inspect wheel pants and fairings for cracks, wear, loose or missing fasteners
- 19) Jack plane at tiedown points
- 20) Remove brake assemblies and wheels
- 21) Inspect tires for wear and cracks, rotate if indicated, replace if necessary
- 22) Check brake cylinders for condition and leaks
- 23) Check brake lines for security and chafing
- 24) Inspect brake linings for wear and condition, re-line if necessary
- 25) Re-pack wheel bearings (hi-temp disc brake grease)
- 26) Clean axle/brake area
- 27) Clean and re-mount wheels and brake assemblies including cotter pin
- 28) Check/set tire air pressure: 26-33 psi
- 29) Clean wheel pants and re-install
- 30) Inspect gear attach bolts for proper torque
- 31) Inspect fuel vent ports for security and condition
- 32) Re-install gear attach covers, upper intersection fairings, wheel pants

Wing Group

- 33) Remove wing inspection plates
- 34) Inspect entire wing structure internally for cracks and corrosion including fuel tank attach bolts
- 35) Inspect aileron control mechanism (push tubes, rod end bearings, bellcrank) for condition/security, lubricate rod end bearings
- 36) Inspect wing root area including electrical connections and plumbing
- 37) Inspect entire wing structure externally for cracks and condition
- 38) Inspect fuel cap and O ring condition
- 39) Inspect aileron attach bolts/brackets for security, lubricate rod end bearings
- 40) Inspect aileron control stops for security
- 41) Inspect pitot tube and plumbing for security and blockage
- 42) Extend flaps, inspect flap actuator rods and attachment hinge for operation and security, lubricate rod end bearings
- 43) Inspect strobe/nav lights for security and operation
- 44) Inspect landing lights for security and operation
- 45) Reinstall inspection plates and wing root fairings

Cabin Group

- 46) Check/change ELT batteries, verify operation, armed
- 47) Inspect ELT antenna
- 48) Inspect flap motor mechanism & wiring for damage and proper operation, lubricate rod end bearing
- 49) Inspect condition of seat harnesses and attachments
- 50) Inspect rear flight controls, lubricate rod end bearings
- 51) Inspect rear pax footwell area including spar bolts, antennas, wing wiring connections
- 52) Inspect fuel selector valve, fittings, fuel lines
- 53) Inspect fwd flight control mechanism, lubricate rod end bearings
- 54) Inspect landing gear mounts and mounting hardware
- 55) Check general condition under panel for loose wires, chafing, etc.
- 56) Check all avionics and instruments for mounting security
- 57) Check cabin heater and controls
- 58) Check rudder pedals and brake cylinders for operation and leaks
- 59) Check battery well area: battery cables and all wires
- 60) Inspect left fwd footwell area: aux fuel pump, firewall penetrations, wire bundles, fuel lines, vent tubes
- 61) Inspect canopy structure and mechanism for security and wear
- 62) Inspect canopy and windshield for cracks
- 63) Check fire extinguisher condition
- 64) Verify spare fuses available in pilot storage bin
- 65) Re-install interior floor panels, seats, flap covers, and seat cushions

Propeller Group

- 66) Remove spinner noting orientation
- 67) Inspect spinner and backplate for cracks or damaged
- 68) Inspect prop hub for cracks or leaks
- 69) Inspect crankcase nose seal for oil leaks
- 70) Inspect blades for nicks, cracks and/or surface erosion, repair as necessary
- 71) Re-install spinner

Engine Group

Service items:

- 72) Remove engine cowl
- 73) Clean cowling interior and inspect for cracks, distortion, loose or missing fasteners, heat damage
- CBO 74) Drain engine oil
- CAC 75) Remove spin-on oil filter, replace and safety wire
- CBO 76) Cut open oil filter, inspect for particles
- CBO 77) Refill engine with oil per lubrication chart
- 78) Remove plugs noting current installed location
- 79) Inspect spark plug condition, clean, re-gap to .018"
- 80) Perform leakdown compression test:
#1 76/80 #2 73/90 #3 75/90 #4 76/80
- 81) Rotate spark plug position/polarity, apply anti-seize, reinstall, torque to 35 ft. lbs.
- 82) Remove carburetor air box and carburetor heat attachments
- 83) Service K&N air filter element
- 84) Reinstall air box and all attachments

- 85) Remove and clean carburetor inlet strainer
- 86) Inspect carburetor mounting nuts for security
- 87) Check engine controls for proper movement and security
- 88) Check exhaust system and mounting brackets for cracks
- 89) Retorque exhaust mounting nuts

Inspection items:

- 90) Inspect accessories on rear engine case for security and leaks including: oil temp sender, oil pressure sender, magnetos, vacuum pump pad, oil lines & fittings, crankcase breather
- 91) Inspect oil cooler condition including fins for damage or blocking, lines for leaks and/or chafing
- 92) Inspect ignition harness, springs and insulators for condition
- 93) Inspect starter: pinion & ring gears, mounts, connections, lubricate w/grease
- 94) Inspect alternator: mounts, lead connections, belt condition and tension
- 95) Inspect plenum/baffle for damage and air leaks
- 96) Inspect engine mount system for damage and attachment security
- 97) Inspect all firewall penetration seals
- 98) Inspect fuel lines for condition, chafing, and signs of leaks
- 99) Inspect all wire bundles for security and chafing
- 100) Inspect all lines, hoses, and clamps for leaks, improper condition, looseness, and chafing

Operational Inspection

- 101) Verify all inspection panels and fairings secure
- 102) Brake system check

Test run engine:

- 103) Check oil pressure/temperature within limits
- 104) Check aux fuel pump for proper fuel pressure
- 105) Check ignition switch, both magnetos grounded check
- 106) Check alternator shut off operation
- 107) Check fuel gauges for operation
- 108) Magneto check
- 109) Check static run up
- 110) Check for proper idle RPM
- 111) Check RPM rise upon leaning mixture
- 112) Check fuel selector for engine shutoff

After shutdown:

- 113) Inspect f/w area for fuel, oil, and hydraulic systems for leaks
- 114) Re-install cowling

