

Maintenance and Inspection Schedule for RCA Van's Aircraft RV14/14a

NOTE: This maintenance schedule must be used in conjunction with Annex A of SACAA-CATS-44

RCA JOB NUMBER:	DATE:
AIRCRAFT TYPEREGISTRATION ENGINE TYPEENGINE S/ PROPELLER TYPEPROPELL	N
HOURS AND CYCLES OF OPERATION AIRFRAME TOTAL TIMELANDINGS.	
ENGINE HOURS SINCE NEW OR LAST OVERHAUL DATE OF LAST OVERHAUL	
PROPELLER SINCE NEW OR LAST OVERHAUL/MIDLIF DATE OF LAST OVERHAUL	
MASS & BALANCE DATE LAST ESTABLISHED(DUE EVERY 60 MONTHS)	
AIRCRAFT DOCUMENTATION AUTHORITY TO FLY NO:CURRENCY DAT RADIO STATION LICENSE:CURRENCY DAT CERT OF REG NO:	
LIST OF WALK AROUND PRE INSP DEFECTS NOTED	
1	
4	
LIST OF COMPONENTS DUE FOR OVERHAUL 1	
3 <u>4</u>	



Maintenance and Inspection Schedule for RCA VAN'S AIRCRAFT RV14/14a

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1.00 Engine, Engine installation and Propeller	MECHANIC	INSPECTOR
1.01 100 Hour/Annual		
Clean engine as required.		
Inspect condition of spark plugs (clean and adjust gap as required, adjust in accordance with Lycoming Service instructions). If fouling of plugs is apparent rotate bottom to upper plugs. Gap plugs 0.016" -0.022"		
Check cylinder compression and record results in Engine Log Book. #1:/80 #2:/80 #3:/80		
Inspect cylinders for cracked or broken fins.		
Inspect Magneto for oil leakage		
Check Magneto to Engine timing		
Inspect throttle, mixture, pitch and cabin heat controls for security, travel and correct operation		
Remove clean, inspect and re-oil induction filter. (replace if required)		
Inspect induction air box and mount plate for cracks.		
Inspect alternate air door and control for wear, damage and operation.		
Inspect exhaust stacks, connections and gaskets. (Replace gaskets as required).		
Inspect mufflers, heat exchange and all engine baffles.		
Inspect breather tube for obstructions and security		
Inspect crankcase for cracks, leaks and security of seam bolts.		
Inspect engine cradle for cracks, deformation and corrosion.		
Inspect engine elastomeric mounts for deterioration/cracks and loose mounting. (Replace as required)		
Inspect firewall.		
Remove spinner, inspect complete propeller and spinner assembly for security and damage or wear.		
Inspect propeller mounting bolts and safety (check torque if safety is broken).		
Inspect propeller blade for damage.		
Lubricate propeller hub (Hartzell)		



control s Check a	50 Hour and inspect external surface of fuselage, wings, empennage, nacelles, flaps and	MECHANIC	INSPECTOR
control s Check a			
	urfaces.		
	nd inspect tip up canopy fit, operation and condition including satisfactory n of latching and locking mechanism and operation of the warning system		
Check p	rotective treatments, drain holes free from obstruction, access panels secure.		
2.02	100 Hour/Annual (as 50 Hour and in addition the following)		
	all inspection panels, rear cabin bulkhead, internal flap mechanism inspection nd floor panels over control stick mechanism. Remove faring over empennage.		
Inspect i items.	nternal structure of fuselage, wing and empennage revealed by removal of above		
3.0 3.01	<u>Landing Gear</u> 50 Hour		
Remove	wheel spats and inspect for damage.		
	nose and main wheel spat attachment brackets for cracks. Check bracket g bolts for security and re-torque as required.		
Inspect I	anding gear legs and fixed fairings for damage and integrity		
Check b	rake system for leaks.		
Inspect l	orake pads and discs for condition and wear		
Check b	rake fluid reservoir (Fill as required)		
	rre condition and tyre pressures (Main40 psi and Nose 35 psi.) wheel spats.		
3.02	100 Hour/Annual (as 50 Hour and in addition the following)		
Inspect a and park	and check all brake hydraulic pipes, flexible hoses, connections, master cylinders king brake system (if fitted) for correct operation.		
Inspect v	wheels for alignment.		
Support check ar	the weight off the wheels and remove main and tail/nose wheel assemblies. Clean and lubricate wheel bearings. Check landing gear mounting bolts.		
Inspect v	wheels for cracks, corrosion and broken bolts.		
	mble, clean, inspect and lubricate tail or nose wheel swivel mechanism. Replace ts as required. Reset breakout force on nose wheel fork. 26lbs		
	ight off the nose wheel, inspect the nose gear link assembly for a gap between the er pad and the first elastomer. Added U-1002 isolation washer as required (max 3) we gap.		
4.00 4.01	Flying Controls 50 Hour		
Check fly	ying controls for full and free movement and in the correct sense.		



4.00 Flying Controls continued		
4.01 50 Hour		
	MECHANIC	INSPECTOR
Check correct operation of trim mechanisms and that indicator agree with surface movement.		
4.02 100 Hour/Annual (as 50 Hour and in addition the following)		
Inspect all control surface hinges, hinge bolts, brackets, push-pull rods, bellcranks, stops, control horns and balance weights. Check associated turnbuckles/locking systems.		
Check control neutrals and travels. ELEVATOR UP:(30 MAX/25 MIN) DWN:(25 MAX/20 MIN) ELEV TRIM UP:(13 MAX/11MIN DWN:(35 MAX/32 MIN)		
AILERON L UP:(32 MAX/25 MIN) DWN:(17 MAX/15 MIN) AILERON R UP:(32 MAX/25 MIN) DWN:(17 MAX/15 MIN)		
RUDDER LEFT:(35 MAX/30 MIN)RIGHT:(35 MAX/30 MIN)		
FLAPS TRAVEL:(35 MAX/33 MIN)		
Lubricate all rod end and hinges.		
Inspect rudder control cables, fairleads and cable guides.		
Inspect rudder pedals and pedal mechanism.		
Check flap operation, mechanism, and actuating system.		
Check and inspect elevator trim for correct operation and security.		
Check and inspect aileron trim mechanism for correct operation and security.		
5.00 <u>Fuel/Oil Systems</u>		
5.01 50 Hour		
Drain samples from all fuel drain points and check for water, foreign matter and correct colour.		
Check fuel tank vents unobstructed.		
Inspect fuel system and tank for leaks.		
Drain oil sump and replace oil filter.		
Inspect oil lines and fittings for leaks, security or damage		
Refill engine with oil.		
5.02 100 Hour/Annual (as 50 Hour and in addition the following)		
Inspect condition of flexible fuel lines		
Check operation of fuel selector valve		
Remove, clean and inspect airframe fuel filter.		
Inspect fuel gauges for damage and operation.		
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5.02 100 Hour/Annual (as 50 Hour and in addition the following) continued	MECHANIC	INSPECTOR
Inspect oil/fuel sender connections and pipes for leaks and security.		
Clean oil sump screen and inspect for foreign particles.		
Inspect security of all fuel lines		
Carry out fuel flow check and record LEFT TANK: RIGHT TANK:		
6.00 <u>Instrument and Instrument Systems</u>		
6.01 50 Hour		
Inspect instruments for damage, and legibility of markings and associated placards.		
Check instrument readings are consistent with ambient conditions; operation, as far possible on engine ground run.	r as	
Check stall warning device operation (if fitted).		
Check and inspect pitot-static system including pitot head, static self drain system.		
Check pitot head correctly aligned and pitot heat operation(if fitted)		
Check last compass swing date (and any other instrument calibration dates) and as renewal required.(normally every 5 yrs for NTCA)	ssess if	
Check autopilot operation in accordance with manufacturer recommendations (if fitted)	ted).	
6.02 100 Hour/Annual (as 50 Hour and in addition the following)		
Inspect instruments: panel; mounts; pipes; hoses; electrical wiring		
Carry out pitot/static system leak and calibration check. (Calibration to be done annual	iually)	
Inspect and check autopilot connections, servo installation and associated control lifitted).	inks (if	
Carry out capacity check on PFD back-up battery (if fitted). (To be done annually)		
7.0 <u>Electrical System</u>		
7.01 50 Hour		
Check and inspect battery installation.		
Check operation of all electrical circuits		
7.02 100 Hour/Annual (as 50 Hour and in addition the following)		
Inspect - components, wiring, terminals and connectors.		
Check correct type and rating of fuses and or circuit breakers.		
Check lamps and lights		



7.02 followi	100 Hour/Annual (as 50 Hour and in addition the ng)continued	MECHANIC	INSPECTOR
	e alternator drive belt and turn alternator rotor to check condition of bearings for all noise or roughness.		
Inspect	condition of alternator and starter (and mounting integrity)		
8.0	Radio		
8.01	50 Hour		
Inspect	aerials, insulators, instruments and displays.		
Check p	olacards and markings legible		
Carry ou	ut VHF ground function check		
8.02	100 Hour/Annual (as 50 Hour and in addition the following)		
VHF cor	mmunication - test the function of the system including Audio Panel(if fitted)		
ATC Tra	ansponder - carry out check with Field Test Set. Check - frequency tolerance and e suppression. Check - Mode "C or S"		
9.00	<u>General</u>		
9.01	50 Hour		
Check fi	ire extinguisher for leakage/discharge.		
Check fi	irst aid kit complete and within expiry date		
Check s	eat belts/harnesses for satisfactory condition, locking and release.		
Check s	eat belt/harness mounting points and brackets		
Check a	all controls and switches labelled correctly		
9.02	100 Hour/Annual (as 50 Hour and in addition the following)		
Check c	abin ventilation and heating system controls, hoses and ducts		
Check a	and inspect cabin heat exchanger for signs of exhaust gas leakage.		
Lubricat	e throughout.		



9.03 Other Maintenance/Inspection Requirements	MECHANIC	INSPECTOR
Check all mandatory requirements (modifications, Service Bulletins, inspections and Airworthiness Directives) have been complied with.		
Ensure all mandatory placards are legible, correctly positioned and worded.		
Ensure Engine, Airframe and Propeller logbooks have been correctly filled in and are up to date. (All flights and work carried out must be entered and signed up as required)		
Ensure all tools, rags and loose articles are removed from the aircraft.		
Minimum 5 years (earlier if required) reweigh and check weight and balance schedule.		
Carry out an engine ground run and check, as far as possible, all systems and services for correct operation. Check - power plant installation for leaks following run. Ensure all cowlings, access panels are secured.		

10.00

compartment.(earlier if required condition On condition Replace flexible brake lines in condition Refer to Prop Manufacturer Propeller overhaul or replacement			
Time Period Action Remove rocker box covers. Check for freedom of valve rocker closed. Look for evidence of abnormal wear or broken parts in tips, valve keeper, springs and spring seat. Any damage requipiston and connecting rod assembly) and inspection for further piston and connecting rod assembly on Plane Power Alternators and brushes for excess wear. Replace brush assembly if brushes extend less than .250" from case. Magneto inspection Magneto overhaul or replacements of the properties			
closed. Look for evidence of abnormal wear or broken parts in tips, valve keeper, springs and spring seat. Any damage requipiston and connecting rod assembly) and inspection for further 5 years/1000hrs Remove field brush assembly on Plane Power Alternators and brushes for excess wear. Replace brush assembly if brushes extend less than .250" from case. Magneto inspection Magneto overhaul or replacement which were comes first. Replace rubber flexible fuel and compartment. (earlier if required condition. On condition Refer to Prop Manufacturer Propeller overhaul or replacement.			
brushes for excess wear. Replace brush assembly if brushes extend less than .250" from case. 500 Hrs Magneto inspection 1000 Hours Magneto overhaul or replacements 8 years or at engine overhaul (whichever comes first) Replace rubber flexible fuel and compartment. (earlier if required condition On condition Replace flexible brake lines in or Refer to Prop Manufacturer Propeller overhaul or replacements	uires removal (including		
1000 Hours Magneto overhaul or replacements 8 years or at engine overhaul (whichever comes first) Replace rubber flexible fuel and compartment. (earlier if required condition) On condition Refer to Prop Manufacturer Propeller overhaul or replacements	·		
8 years or at engine overhaul (whichever comes first) Replace rubber flexible fuel and compartment. (earlier if required condition On condition Replace flexible brake lines in compartment. Propeller overhaul or replacement.			
Compartment.(earlier if required condition On condition Replace flexible brake lines in condition Refer to Prop Manufacturer Propeller overhaul or replacement	ent.		
Refer to Prop Manufacturer Propeller overhaul or replacement	Replace rubber flexible fuel and oil lines in engine compartment.(earlier if required) All Teflon hoses on condition		
	cockpit		
Refer to Engine or Component, Manufacturer Engine and angine components	ient		
replacement	Engine and engine components overhaul or replacement		
I HEREBY CERTIFY THAT IN CARRYING OUT THE FOREGOING SPECIFIED MAINTENAREQUIREMENTS PRESCRIBED IN THE CIVIL AVIATION REGULATIONS, 2011, THAT AIT THERETO HAVE BEEN COMPLIED WITH.	ANCE, ALL THE IRE APPLICABLE		
DATE: SIGNATURE:			
LICENCE OR APPROVAL NO/STAMP:			
AMO NAME:LICENCE NO			
AME/AP NAME:LICENCE NO			

Robin Coss Aviation Page 7 of 8
Document RCA-Maintenance & Inspection Schedule RV14/14A

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10.00 Notes on Mandatory Requirements

- 10.00 To operate the aircraft an ORIGINAL (or certified copy) valid Authority to Fly issued by the SACAA or RAASA must be carried in the aircraft together with the ORIGINAL (or certified copy) Certificate of Registration, a valid Radio Station License and a current Certificate of Release to Service.
- 10.02 Aircraft insurance is not a legal requirement. It is however SACAA policy for aircraft to have adequate third party insurance.

TORQUE SETTINGS

Exhaust Stack (Vetterman Recommendation)	140/180 in lbs		
Lycoming Recommendation: -	5/8-24 plug leads 3/4-20 plug leads Spark Plugs Slick Magneto hold-down clamps		80/90 in lbs 110/120 in lbs 35 ft lbs 190-220 in lbs
General Torque settings STEEL: - (fine threads)	AN3 AN4 AN5 AN6	(3/16 in) (1/4 in) (5/16 in) (3/8 in)	30-40 in lbs 50-60 in lbs 100-140 in lbs 160-190 in lbs