CIVIS AERIUS SUM

I am a citizen of the air

AERONCA 7-AC ANNUAL AND 100 HOUR INSPECTION CHECKLIST

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A&P / IA

1 CIVIS AERIUS SUM

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CIVIS AERIUS SUM

ACCEPTANCE FOR INSPECTION

	Make & Mod	el
N #	Aircraft Serial #	Engine Serial #
Owner:		
Address:		
Telephone #		
	Registration Certificate	
	Airworthiness Certificate	
	Aircraft Log Book	
	Engine Log Book	
	Propeller Log Book	
	All Total Times Established	
	Means of Determining Wt. &. Bal.	
	Incorporated STCs	
	Applicable 337s	
	Operating Limitations	
	Manufacturer's Data Plates	
Owner's aut	horization to conduct inspection:	
R	egistered Owner	Date

Accepted for Annual / 100 Hour Inspection

Date

3 CIVIS AERIUS SUM EQUIPMENT LIST

	Mfg.	Model	Serial #	тт	SMOH
Propeller					
Engine					
Magneto, R.					
Magneto, L.					
Carburetor					
Air filter					
Oil pres. gage					
Oil temp. gage					
Tachometer					
Airspeed Ind.					
Altimeter					
Mag Compass					
Main wheels					
Brakes					
Tail wheel					
Tires					
ELT					
IF INSTALL	.ED:				
Starter					
Generator					

Voltage Reg.	 	 	
Battery	 	 	

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EQUIPMENT LIST

If Installed:	Mfg.	Model	Serial #	TT	SMOH
Amp meter					
EGT					
Clock					
Turn & Bank					
Vacuum gage					
Nav Com					
Intercom					
VOR Indicator					
Transponder					
Encoder					
ADF					
ADF Indicator					
GPS					
Loran					
Rotating Bcn.					
Strobe Lights					
Miscellaneous:					

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Make log book entries.

DETAILED INSPECTION - PROPELLER Wood 72C-44 Not >72" or <70" in dia. and not >2250 or <1960 static RPM Sensenich Not >74" or <72" in dia. and not >2250 or <1960 static RPM Metal 74CK-0-44 (Climb) 74CK-0-46 (Standard) Not >74" or <72" in dia. and not >2250 or <1960 static RPM Not >71" or <69.8" in dia. and not >2250 or <2100 static RPM McCauley Metal 1A90 Metal 1B90-CM Not >74" or <72.5" in dia. and not >2450 or <2100 static RPM Metal (Climb) Not >74" or <72.5" in dia. and not >2250 or <2100 static RPM CM7443 Metal CM7445 (Standard) Not >74" or <72.5" in dia. and not >2450 or <2100 static RPM Metal CM7447 Not >74" or <72.5" in dia. and not >2250 or <2100 static RPM Cruise Not >72" or <70" in dia. and not >2250 or <1960 RPM Flottorp Wood 72A50, 52 See Aircraft Specifications No A-759 for limits and restrictions. Metal (Controllable) Koppers Aeromatic F200/00-72D See Aircraft Specifications No A-759 for limits and restrictions. Inspection Procedure Gripe Ref.# Item # Remove spinner cap. Clean and inspect cap and mount for cracks, signs of fatigue and 1 corrosion. Check torque of propeller mounting bolts. Resafety. Examine wooden hubs for over-torque damage. Ensure bolts extend at least one full thread above crown of nylon lock nuts or 2 two threads above flanges. Track blades. Inspect wooden propellers for damage, finish, brass leading edges and tip security. Inspect metal blades for damage, nicks dressing, corrosion and quality of 3 previous repairs. 4 Ensure all ADs (if any) are complied with.

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		DET	FAILED IN	SPECTION	- ENGINE		
	operating te	e and engine comp mperature. Record nd carb heat RPM	d static & i	dle RPM, m	agneto drop,	oil temperatur	
		Static RPM	, Idl	e RPM	Mag o	drop R	L
Gripe Ref #	Item #	Oil temp	Oil pro	ess	Carb hea	t RPM drop	
	1	Inspect engine da	ita plate. E	Ensure it is	the engine rec	corded in the l	og book.
	2	Perform differenti	al compres # 1	ssion check #2	a over 80 PSI #3	#4	
	3	Remove spark plu to bottom.	ugs. Inspe	ect for condi	tion and appli	cation. Clean	, gap, and rotate top
	4	Inspect ignition ha				lding integrity,	proper routing, security
	5	Inspect engine ali proper torque and			Check engin	e mounts for (deteriorated rubber,
	6	Inspect engine cy damage, and mot		cker box co	vers, gaskets,	and pushrod	housings for leaks,
	7	Inspect crankcase Ensure anti-ice ho				n flex connecte	ors and breather pipe.
	8	Inspect metal eng flexibility, integrity					eck flex baffles for

	Inspect induction air box, filter, attaching hardware, carb heat control arm and shaft, carb heat door, ducting, clamps, and mounting security.
	Inspect magnetos. Remove from engine and inspect internally IAW mfg's overhaul manual. Check internal E gap and timing. Reinstall and time to engine. Inspect external condition, security, P-lead and ground wire integrity and terminals. Ensure vent screens are clean.

		DETAILED INSPECTION - ENGINE (Continued)
Gripe Ref#	Item #	Procedure
	11	Inspect carburetor. Verify model appropriate to engine. Remove and clean fuel inlet screen. Verify float level. Check control arms for wear & freedom of movement through full range of control. Ensure one piece venturi if applicable.
	12	Remove heat muffs and inspect exhaust stacks IAW AD 47-30-05. Check muffs and ducting collars for cracks. Check cowl clearance of stacks. If other than standard exhaust system, inspect risers, couplings, shrouds, muffler interior & exterior & tailpipes.
	13	Inspect oil sump. Check gap gasket and dip stick. Flush sump with solvent & leave open to ventillate residual solvent.
	14	Remove oil pressure cap. Clean spring, ball, and seat. Examine oil pressure fittings and hose for leaks and integrity. Re-install and re-safety.
	15	Change external oil filter, if installed. Inspect mounting security and integrity.
	16	Inspect firewall for cleanliness and integrity. Check dzus springs, nut plates, clamps, grommets, and chafe strips. Inspect cabin heat ducting, housing, and function.
	17	Inspect control rods, cables, and housings; all end fittings for wear and security. Ensure lubrication and freedom of movement throughout range of control.
	18	Inspect gascolator. If glass bowl, remove and replace gaskets, clean glass and screen. Check fuel drain valve for positive shut off. Reinstall. Inspect fuel line from gascolator to carburetor for leaks, integrity & security. Ensure compliance with AD 47-20-01.

19	Close oil sump drain valve. Refill sump with appropriate grade and quantity of oil.
20	Start and run engine until reaching operating temperatures. Record:
	Static RPM, Idle RPM, Mag drop R L,
	Oil temp, Oil Pressure, Carb heat RPM drop

		DETAILED INSPECTION - ENGINE (Continued)
Gripe Ref#	Item #	Procedure
	21	Inspect entire engine and compartment for leaks, FOD, and security.
	22	Inspect engine cowling and nose bowl for cracks, corrosion, alignment, and security. Chec fit and integrity of dzus fasteners. Check hinges, if installed, for alignment and lubrication.
	23	Make engine log book entries.

		DETAILED INSPECTION - FUSELAGE
		Vacuum interior. Thoroughly clean all spills, debris and FOD.
Gripe Ref. #	Item #	Procedure
	1	Inspect aircraft registration numbers, Verify aircraft registration certificate, airworthiness certificate, manufacturers data plate, log book, and exterior data plate.
	2	Inspect fabric and tapes for proper adhesion, strength and integrity. Check for abrasions, ringworm, deterioration, and tautness. Check for signs of corrosion bleeding thru from tubing. Probe with pick if indications exist or moisture is evident.
	3	Inspect windshield and side windows for clarity, cracks, crazing, and sealing. Inspect upper, lower, and side retainers for proper attachement.
	4	Inspect wing spar attach points for wear, cracks, rot, and security. Ensure compliance with AD 49-11-02.
	5	Inspect wing strut attach points for cracks, signs of stress, lubrication, and security.
	6	Inspect forward, rear, and center fuselage landing gear attach points for cracks, signs of stress, movement, alignment, and proper lubrication.
	7	Inspect float and/or ski fittings if installed.

	Check and record the following	control travels:		
	Rudder	L R	25.O 24.O	
8	Elevator	Up Dn	25.O 15.5	
	Trim Tab	Up Dn	20.O 34.5	
	Aileron	Up Dn	28.5 18.O	(+0 -2) (+0 -2)
9	Inspect all fairings and inspecti	on covers for cracks, o	corrosion, fi	t, fasteners and seals.

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		DETAILED INSPECTION - FUSELAGE
		(Continued)
Gripe Ref. #	Item #	Procedure
	10	Inspect all voids for cleanliness, FOD, proper draining and ventilation.
	11	Inspect interior fabric for signs of deterioration, tears, delamination, and holes.
	12	Inpect all tubing for cracks, corrosion, alignment, and cleanliness.
	13	Inspect all wooden bulkheads and stringers for rot, varnish, attachments & alignment.
	14	Inspect full length of elevator, rudder, and trim tab cables for cleanliness, corrosion, broken wire lays, kinks, wear, and security of nicopress fittings. Check all turnbuckles for safetying, and go-no-go threading. Inspect each pulley along entire length for wear, proper lubrication, and freedom of rotation. Ensure fairleads are secure and pulley cable guards are properly positioned and secure.
	15	Inspect electrical wiring and cable flex housing for proper routing, security of terminal connections, and condition of insulation. Check tie-raps, string ties, conduits, and retainers for security. Ensure separation of all wiring from any movable parts.

		DETAILED INSPECTION - CABIN
		inspection covers, fairings, instrument decorative panels, seats, side panels, , upholstery, trim, and headliner as necessary to inspect the following:
Gripe Ref. #	Item #	Procedure
	1	Inspect seats, seat belts, and shoulder harness. Check seat structure, hold-down tabs, and bolts. Inspect seat belt attaching hardware and webbing for security. Inspect belt buckle release mechanism for proper function.
	2	Inspect upholstery, headliner, trim, and baggage compartment for integrity.
	3	Inspect instrument panel mounting. Verify compass deviation card present. Check individual instruments for general condition, mounting, and appropriate range markings. Ensure legibility of lines, numbers, and colors.
	4	Inspect instrument wiring, terminals, pitot/static lines, and hardware for mounting security. Check tach cable, oil pressure and oil temperature lines for abrasion, routing, and support.
	5	Inspect primer for security, leaks, and locking. Check primer fuel lines for routing, integrity and flow.
	6	Inspect ignition switch, carb heat, fuel shut-off lever and rod linkage for mounting security.

	Check fuel rod universal and positive shut-off function.
7	Inspect carb heat and cabin heat control cables for lubrication, routing, and function.
8	Inspect control sticks for security, mounting, and compliance with AD 48-39-01. Inspect torque tube, clevises, bolts, and micarta bearings for cracks, distortion, and freedom of movement thru full control displacement range.
9	Check elevator and aileron cable tension. (45-55 lbs. @ standard temperature)
10	Inspect aileron bellcranks and parallel torque linkage for cracks, corrosion, wear, clevises, lubrication, and freeedom of movement thru full range of control movement.

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		AERONCA 7-AC ANNUAL / 100 HOUR INSPECTION
		DETAILED INSPECTION - CABIN
		(Continued)
Gripe Ref. #	Item #	Procedure
	11	Check rudder pedals for mounting, lubrication, full travel to rudder stops, cable attach points for cracks or excessive wear. Check return springs for proper tension, cleanliness, and tab security.
	12	Inspect brake pedals for cracks, movement, cable and fastener security, and proper lubrication. Verify cable freedom and housing security to torque plate (Van Sickle) or disk caliper (Goodyear). Inspect brake link rods for security, clevises, lubrication, and freedom of movement thru full brake pedal limits.
	13	Inspect elevator trim tab for security, proper friction, and freedom of movement thru full trim tab deflection. Check trim tab cable tension (15-20 lbs.)
	14	Inspect avionics installation for proper mounting, grounding, antenna connections, and operation.
	15	Inspect cabin door handles (inside and outside), latch mechanism, hinges, weather strip, proper closing and retention.

			or leaks, clarity, and proper indication of quantity. Inspect tank ness, and security of hold down straps.
			, proper grommets on items penetrating fire wall, signs of any leaks nt, and integrity of firewall cover.
		Inspect stick boots for int of FOD.	tegrity and floor board cable penetration slots for proper exclusion
		Baggage compartment:	MAXIMUM BAGGAGE - 40 LBS SOLO. 20 LBS SOLO REAR.
Required	Placards	In pilot's full view:	DO NOT EXCEED 129 TIAS AVOID ABRUPT THROTTLE MOVEMENT
		At fuel tank filler:	CAPACITY 13 GAL. MINIMUM OCTANE 73
		Throttle and trim tab exc	utcheon plates.

DETAILED INSPECTION - WINGS

Gripe Ref. #	Item #	Procedure
	1	Inspect upper and lower wing fabric and tapes for proper adhesion, strength, and tautness. Ensure fabric attaching screw heads have not penetrated fabric tapes - check carefully for moisture penetration. Ensure compliance with AD 48-04-02.
	2	Vacuum interior, remove any FOD, mouse nests, mud-daubber nests, etc. Ensure all drain holes are open.
	3	Inspect wing struts for dents, cracks, corrosion, and alignment. Examine rear strut fork threads. Ensure compliance with AD 47-30-01 (lift strut fitting).
	4	Inspect jury struts for dents, corrosion, alignment & mounting. Inspect pitot/static tubes for open holes. Pressure check pitot lines inside wings for leakage, corrosion, trapped moisture, quality of flexible couplings and mounting integrity.

5	hardware for cracks, corrosion, mounting integrity, and preservation. Ensure rib nailing is tight. Examine spar closely for signs of compression failure. Ensure spar is properly varnished. Pay particular attention to spar attachment hardware area for signs of moisture penetration, cracks, delamination, and bolt security.
6	Inspect aileron bellcrank for cracks, mounting security, cable attachment hardware, freedom of movement, and lubrication.
7	Extract aileron cable at bellcrank access hole. Examine for wear, broken lays, corrosion. Lubricate with LPS-3 or paralketone. Reinstall.
8	Remove aileron. Clean, inspect and lubricate bearings. Check clevis bolts for wear. Ensure pushrod ball ends are free and lubricated.
9	Inspect aileron fabric, tapes. Check structural integrity. Ensure drain holes are open. Check for sound of enclosed FOD. Reinstall.

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AERONCA 7-AC ANNUAL / 100 HOUR INSPECTION **DETAILED INSPECTION - EMPENNAGE** Remove all inspection plates, covers, and fairings to inspect stabilizers, elevators, and rudder. Gripe Ref. # Item # Procedure Inspect empennage fabric and tape for proper adhesion, strength, and tautness. Check for abrasions, ringworm, and tears. Inspect fuselage mounting hardware. Inspect tubing for 1 rust and alignment. 2 Inspect stabilizer wires for correct tension, cracks, and mounting. Ensure vertical fin is normal to horizontal stabilizers and fuselage. Remove elevator trim tab. Inspect cable ends, turnbuckle, and pulleys. Inspect trim tab 3 leading edge for cracks in bend radius. Clean interior of FOD. Inspect hinge pins for wear and hinge frame for cracks, and proper lubrication. Remove elevators. Inspect all tubing for internal corrosion. Ensure drain holes are open and no FOD is in the interior. Inspect hinge celvis pins for wear and hinge frame holes for 4 elongation. Lubricate and re-install.

5	Inspect elevator bell crank for cracks, wear at bolt holes, and proper alignment. Ensure stop limit bolts are free of rust and are properly locked. Check cable ends and shackles.
6	Remove rudder. Inspect trailing edge (with particular attention to lower curve) for alignment and corrosion. Inspect fabric and tapes for proper adhesion and all drain holes open. Check for FOD in interior. Inspect hinge clevis pins for wear and hinge frame holes for elongation. Inspect tailwheel steering fork for security, cracks, corrosion, and alignment. Check rudder cable ends and shackles.
7	If rudder trim tab is installed, remove and check for corrosion between tab and trailing edge. Re-Install.

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		DETAILED INSPECTION - LANDING GEAR
	Remove c	suffs and fairings. Jack or hoist aircraft to allow removal of wheels and oleo frames.
Gripe Ref. #	Item #	Procedure
	1	Remove brake cable from brake assy. Remove wheels and brakes from axle. Inspect brake cable fairleads for wear and alignment.
	2	Disassemble brake assemblies. Inspect Goodyear calipers, torque arms, back plates, clips, discs, pucks, and hardware for wear, cracks and mounting security. Inspect torque plate, arms, drums, shoes, springs, and linings (Van Sickle). Replace worn components.
	3	Remove wheels. Deflate tires before disassembling wheel halves. Clean and inspect for cracks, damage, and corrosion. Check bolts & nuts. Keep wheel halves matched, hole hole. Remove bearings, flush clean and inspect for galling, damaged cages, worn rollers. Repack bearings.

4	Inspect tires for wear, sidewall integrity, interior cleanliness. Check tube for creases, folds or abrasion. Powder with talc before reassembly.
5	Remove oleo strut case from fuselage and axle. Remove axle from fuselage. Inspect case, axle, and fuselage mounting holes for elongation or deformation. Clean and inspect all welds. Prime & repaint. Lubricate all fittings before reassembly.
6	Inspect oleo case fabric and tapes for adhesion and tautness. Ensure drain holes are open. If aluminum fairings, remove and inspect case & angle strut for cracks, rust, and alignment.
7	Remove oleo from case clean interior thoroughly. Inspect case bushing (brass) and zirk. Inspect oleo spring for proper length (must be tight against upper and lower blocks). Inspect packing, packing gland, and piston tube for leaks, wear, pitting, distortion, and corrosion.
8	Drain hydraulic fluid. Flush out interior with alcohol. Ensure compliance with AD 47-20-02 (aluminum piston).Refill oleo with 5606 hyd. fluid. Reinstall in case and lubricate thru zirk.
9	Remount tires on wheels. Inflate to 13 - 15 lbs.and install on axle. Reassemble landing gear to fuselage, greasing all fittings. Return aircraft to wheels. Check wheel alignment.

		AERONCA 7-AC ANNUAL / 100 HOUR INSPECTION
		DETAILED INSPECTION - LANDING GEAR
		(Continued)
Gripe Ref. #	Item #	Procedure
	10	Remove tail wheel assembly from fuselage. Inspect mounting bolt threads. Inspect spring leafs and leaf mounting U bracket for cracks, wear, and rust.
	11	Disassemble tail wheel. Inspect housing assembly bushings, zirks, bearings, and washers. Check for wear and alignment. Inspect steering arms for wear, elongated holes, and alignment.
	12	Remove tire. Inspect axle bolt for wear and alignment. Clean and inspect bearing cups and cones, cages and rollers. Repack.

13	Inspect tire for tread wear, side wall integrity, and signs of slippage on mount halves.
14	Lubricate and reassemble tailwheel. Re-install on fuselage with new pads on spring mount.

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		AERONCA 7-AC
		ANNUAL / 100 HOUR INSPECTION
		DETAILED INSPECTION - ELECTRICAL
		If Installed
Gripe Ref. #	Item #	Procedure
	1	Remove battery from battery box. Clean box & neutralize. Ensure drain line and vents are open. Inspect cover for integrity, cleanliness and proper closing.
	2	Inspect battery for cleanliness and corrosion free terminals. Check specific gravity, electrolyte level and cap security. Inspect grounding strap terminals and security.
	3	Inspect full length of battery positive cable for abrasion, corrosion free terminals, boots, routing security and support.

4	Inspect each solenoid for function, mounting, grounding, terminal corrosion, and wiring.
5	Inspect voltage regulator for mounting security, corrosion free terminals, and wire integrity.
6	Remove generator from engine. Disassemble and check brushes, bearings, wire terminals, and cleanliness. Check armature brush area for trueness. Inspect drive gear for play, chipped teeth, and wear.
7	Remove starter from engine. Disassemble and check brushes, bearings, wiring, and cleanliness. Check armature brush area for trueness. Inspect drive gear for play, chipped teeth, and wear. Check manual engagement mechanism for deformation, cracks, wear, and function. Check terminals for security and corrosion.
8	Inspect all wiring throughout aircraft for security, insulation, shielding, boots, terminals, fuses, switches, and proper capacity.
9	Inspect all lighting fixtures, bulbs, mounting, and function. Ensure gaskets are in place and lenses are clean.
10	Compute electrical load. Check generator cut-in/out RPM.

CLOSE UP

____ Aircraft documentation and check list in cockpit.

_____ All gripe items corrected and/or list of uncorrected discrepancies provided to the owner.

- _____ Wing dihedral & wash out verified.
 - _____ Aileron travel and cable tension verified.
 - Elevator travel and cable tension verified.
- Elevator trim tab travel and cable tension verified.
 - _____ Rudder travel and cable tension verified.

Interior of all voids and compartments cleaned, vacuumed, and free of FOD.

- _____ All inspection covers and plates installed.
- _____ All cuffs, caps, fairings, and seals installed.
- _____ Appropriate placards and escutcheons in place.

_____ All hinges, vents, windows, doors, and locks functional.

- _____ Compass swung and deviation card updated.
- _____ Engine oil changed and quantity verified.
- _____ All filters cleaned and installed.
- _____ Tires installed and properly inflated.
- _____ If installed, battery fully charged. All electrical systems functional.
- _____ Post close up engine run up conducted and data recorded.
- _____ AD Note compliance recorded.
- _____ Aircraft, engine, & propeller log book entries made for work performed. All new 337s completed and logged.
- _____ Result of annual / 100 hour inspection entered in logs.
- _____ If required, conduct test flight for return to service.

Signature

A&P/IA # Date

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	AERONCA 7-AC ANNUAL / 100 HOUR INSPECTION
	DISCREPANCY SHEET
o · "	
Gripe #	Corrective Action