



INSPECTION CHECKS

ROTAX 914 ENGINE INSTALLATIONS

LAA/IC-ENG-
ROTAX914
Issue 1

A/C Type:

Reg:

Date:

Engine Serial No:

If not new, brief history of engine:

Engine Installation Details

Slipper clutch fitted Yes / No

Vacuum pump drive fitted Yes / No

Vacuum pump Yes / No Make/Model:

Hydraulic propeller governor Yes / No Make/Model:

Cooling air duct fitted Yes / No

Air filter: Make & type

Radiator type Rotax Std. / Other
Details if other:

Pressure Cap: Rotax 0.9 bar
Rotax 1.2 bar

NOTE : If standard Rotax expansion tank fitted, 0.9 or 1.2 bar cap is standard. If remote expansion tank or radiator with pressure cap is fitted, it may not be standard Rotax.

Details if other:

Oil Cooler: Yes / No
Type: Rotax small height 82mm/Medium 95mm/Large 131mm /Other
Details if other:

Engine alterations: e.g. coolant or oil thermostatic valve, throttle-open springs removed or reversed, prop shaft extension, coolant inlets/outlets on cylinder heads/water pump rotated to new position, etc, etc.
(Include LAA Mod Nos. where appropriate)

Engine Installation Inspection

Inspector's initials

Compliance with Rotax Mandatory Bulletins and CAA MPDs
(see www.rotax-aircraft-engines.com)
Details:

Incorporation of advisory modifications	
Details:	

Engine Mounting

Suitable anti-vibration mounts fitted	
Security of mounting: engine to subframe, subframe to airframe	

Propeller

Pusher / Tractor (Delete as applicable)

Propeller make/ Designation:	No. Blades	Dia: Inch/mm	
Pitch for each blade – ground adjustable propellers			
1:	2:	3:	4:
inches/mm or ____ deg at ____ % radius/tip			
Inertia	Kg cm ²	From manufacturer or checked – Rotax SI-11-1991	
Balance	gm metre	(Must be no more than 0.5 gm m)	
Propeller mounting Describe fully the method of propeller attachment, including details of any propeller extension or spacer used. Also include details of spinner attachment, if applicable, including bulkheads, materials and fasteners used. Drawings may be attached.			

Cooling System

Expansion tank at highest point in cooling system	Yes / No	
Pressure cap, condition, sealing & operation of <i>both</i> valves		
Expansion tank security (If not standard Rotax tank on top of engine)		
Chafing of standard Rotax expansion tank on crankcase (Check for rubber pad)		
Mounting of radiator(s) – secure & isolated from engine vibration		
Pipework – adequate flow diameter, flares or lips on ends of all metal pipes, suitability & condition of hoses & clamps, chafing, leaks		
Overflow bottle should be below pressure cap, but not more than 250 mm. Vented with adequate size hole (2.5 mm Ø minimum), vent piped away from engine if overflow bottle near carb intakes		

Cylinder head temperature gauge fitted and temp limits placarded (pre '-01' models only). Specify instrument: _____	Yes / No	
Coolant temperature gauge fitted and temp limits placarded. Specify instrument: _____ (All '-01' models. Recommended on pre '-01' models in addition to CHT gauge, particularly new installations & those with unknown cooling system adequacy)	Yes / No	
Temperature sensor & leads, condition, chafing		
Coolant filled		
Antifreeze added (specify ratio)		

Exhaust System

Carbs, hoses, cowlings etc. protected from exhaust heat		
Exhaust gas temperature gauge fitted Specify instrument:	Yes / No	
Cylinders monitored: No.	1 / 2 / 3 / 4	
EGT sensors & leads, condition, chafing		
Exhaust tail pipe in compliance with installation manual, attachment secure and exit clear of airframe.		

Turbocharger System

Turbo wastegate; no backlash when closed	
Turbo wastegate self-check function and warning lights check	
Turbo wastegate servo isolation DPST latching or guarded switch; fit and function	
TCU location not in engine bay	
Placards for servo switch, warning lights, TCU circuit breaker	

Lubrication System

Oil filter – check correct type – Black painted with Rotax part no.	
Oil tank securely mounted free from vibration & with level 0-400 mm below propeller shaft	
Suction & return connections on tank correct way round & secure	
Oil tank vent pipe routed in continuous downslope, no kinks. Oil tank vent protected from icing	
Oil suction hose – connections secure, suitable for temperature, stiff enough to prevent collapse under suction, no kinks, adequate internal diameter.	
Protection from chafing & exhaust heat	
Oil return hose – connections secure, suitable for temperature & pressure. No kinks, adequate internal diameter. Protection from chafing & exhaust heat. Banjo connection under engine wire locked	

Full & free movement of chokes	
Choke cable adjusters locked. Cable outers secured	
Carb synchronisation – check mechanical synchronisation at idle & full throttle positions	
Drip trays/heatshields between carbs & exhaust Yes / No (Recommended)	
Drain pipe from drip trays to safe area	
Air filter secure (wire locked if pusher)	

Fuel Flow Check

Check fuel flows in accordance with TL2.20 and submit completed LAA/IC-FF form. Each pump and both pumps together from all tank outlets	
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Ignition & Electrical

Check all wiring for security, connectors, chafing	
Check battery connections, starter, starter solenoid, +ve terminals insulated	
Check regulator connections, regulator earthed	
22000 µf capacitor installed	
Earth connection, engine to airframe (or to battery if composite airframe)	
Charging indicator – voltmeter/ammeter/warning light	
Spark plug caps correctly fitted	

Instruments

Tachometer type	
Other engine instruments not already detailed – specify	

Pre/Initial Start Checks

Engine oil filled & system purged Oil type used - specify	
Coolant filled; overflow bottle part filled	
Check throttles closed	

Initial Engine Run – aircraft adequately secured

Start engine. Check oil pressure. Follow Rotax procedure.	
Stop engine after about 1 minute idling. Check oil level & coolant. Top up as necessary	
Restart & warm up per Rotax procedure.	
Check function of ignition circuits	
Check charging	
Check all engine instruments	
Carry out pneumatic carburettor balance	
Check cooling system adequate during prolonged ground running cowl installed – Minimum ground running 20 mins	
Aircraft tied down - Check 104% and full throttle RPM. Max RPM =	

Declaration by Inspector

I certify that the above checks have been carried out to my satisfaction.

Name:	Signed:	Insp. No.:	Date:
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