



## AutoGyro

Ground Run Request/Report				
Mechanic Name:		Date:	Location:	
Gyro Type:	Works No:	Reg:	Logbook Hrs:	
Engine Type: Rotax 915 ONLY	Engine Ser No:	Engine hours:	Prop:	
Reason for test: Ground run post repair / ground run post service / other reason.....				
<b>Prior to engine start, check all fluid levels are correct, any required cowlings removed and fuel tanks empty – ensure both LANE switches are off and the area is clear, turn keyswitch on (without turning the engine)</b> <b>Where checks have already been completed as part of a service, repetition is not required.</b>				
Test No.	Action	Result	Remarks	Sign
1	With keyswitch and Avionic switch <b>off</b> , ensure the electronic (where fitted) Altimeter and ASI can be manually switched on and off (internal battery check)	Ok/Nok/NA		
2	With keyswitch and Avionic switch <b>on</b> , ensure the electronic (where fitted) ASI and Altimeter can be manually switched on, and switches off automatically when the keyswitch is switched off.	Ok/Nok/NA		
3	Check correct indication of the altimeter	Ok/Nok	Cross check to transponder at 1013Pa (if fitted) and/or airfield QNH & height If nok, recalibrate or replace	
4	Turn keyswitch ON			
5	Roll trim (if fitted) LED carries out a self-test and centralizes	Ok/Nok/NA		
6	Instruments carry out a self-test (where applicable)	Ok/Nok/NA		
7	Low fuel warning LED is illuminated (if fitted)	Ok/Nok/NA		
8	Fuel pressure warning LED illuminates (and extinguishes if sufficient fuel pressure present)	Ok/Nok/NA		
9	Low Volt LED illuminates	Ok/Nok		
10	Gen3 (if fitted) LED is illuminated	Ok/Nok		
11	Oil P LED is illuminated	Ok/Nok		
12	Lane A and Lane B LEDs illuminate when LANE A and LANE B switched ON	Ok/Nok/NA		
13	Fire Warning LED (Cavalon) carries out a self-test and extinguishes	Ok/Nok/NA	3 short blinks	
14	Fuel gauge shows zero fuel	Ok/Nok/NA		
15	Outside Temp gauge shows correct temp if fitted	Ok/Nok/NA	Compare with known ambient temperature	
16	Water Temp LED remains extinguished	Ok/Nok/NA		
17	Slowly fill the tank with fuel, note the amount of fuel required to extinguish the Low Fuel LED (if fitted)	Fuel required.....Ltr Ok/Nok/NA		
18	Continue to fill the tank to maximum level and carry out a leak check if possible.	Ok/Nok/NA		
19	Ensure compass indicates the correct direction	Ok/Nok/NA	Compare to known heading N,S,E,W. Calibrate if required	
20	Ensure main electrical fuel pump is functioning (sound test)	Ok/Nok/NA		
21	Carry out a functional check of the secondary electrical fuel pump (sound test)	Ok/Nok/NA		
22	Ensure all instrument readings and ranges of the glass cockpit (if fitted) comply with TADS.	Ok/Nok/NA		
<b>Prior to carrying out the ground run with engine running, secure the gyro at the keel tube to a secure ground mounting point, ensure the securing line is taut and apply the brakes. Ensure the area is clear of obstruction and be aware of propeller blast. Ensure that the area</b>				



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rear of the rear undercarriage boom is not entered AT ANY TIME with the engine running. Carry out the engine ground run and all adjustments in accordance with engine manufacturer's current instructions. Ideally the aircraft should be ground run with rotor removed to facilitate a pre-rotation test.

**Loose cowlings MUST be secured!**

23	Carry out a wheel brake functional test	Ok/Nok	Solid end point, brake lever should not contact throttle lever. Minimal sponginess	
24	Switch the 2 LANE switches to the on position, ensure the throttle is at the correct position and start the engine	Start Ok/Nok		
25	Ensure the engine oil pressure enters the green range within 10 seconds	Ok/Nok		
26	Ensure all LEDs extinguish	Ok/Nok		
27	Ensure all LEDs extinguish in the rear cockpit if fitted	Ok/Nok/NA		
28	Ensure fuel pressure gauge functions correctly if fitted.	Ok/Nok/NA		
29	Carry out a leak check of all oil lines and connections	Ok/Nok		
30	Carry out a leak check of all coolant lines and connections	Ok/Nok		
31	Carry out a leak check of all fuel lines and connections	Ok/Nok		
32	Carry out a functional check of the navigation lights if fitted	Ok/Nok/NA		
33	Carry out a functional check of the anti-collision lights if fitted	Ok/Nok/NA		
34	Carry out a functional check of the strobes if fitted	Ok/Nok/NA		
35	Carry out a functional check of the main landing lights if fitted	Ok/Nok/NA		
36	Carry out a functional check of the LED landing light and position lights if fitted	Ok/Nok/NA		
37	Carry out a functional check of all cockpit lighting (and dimmer switch) if fitted	Ok/Nok/NA		
38	Set engine speed to 5000rpm and carry out a functional test of the Woodcomp propeller if fitted	Pull out the propeller knob to full coarse and observe/listen for the drop in engine rpm. Return to full fine and observe that the rpm returns correctly Ok/Nok/NA	Finish check in full-fine pitch.	
39	Ensure engine idle speed is set to 1600 +/- 50rpm	Engine idle speed.....rpm Ok/Nok	Adjustable prop set to 'fine' if fitted	
40	Note any abnormal vibrations in the fuselage/engine/prop at idle	Ok/Nok		
41	Increase engine rpm to 2500, switch off cockpit LANE A. Note engine rpm drop, switch back on. Carry out the same for LANE B	Rpm drop LANE A.....rpm Rpm drop LANE B.....rpm Difference.....rpm OAT.....°C Airfield.....Ft Ok/Nok	Maximum allowed drop: 250rpm	
42	Carry out the same test in action 51 for the rear instructor LANE switches if fitted	Rpm drop LANE A.....rpm Rpm drop LANE B.....rpm Difference.....rpm Ok/Nok		
43	With the engine rpm stabilized at 4000rpm, carry out an oil thermostat check.	Ok/Nok	On reaching approx. 100°C the thermostat should open and the oil temperature should drop by approx. 10°C	
44	Carry out a full throttle check. <b>Operator should be seated in the aircraft during this check.</b>	Ok/Nok	Full throttle engine rpm should be 5400 +/- 100rpm Woodcomp prop to be set to full fine	



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<b>45</b>	With throttle returned to idle, carry out a pneumatic functional check of the <b>forward</b> stick 4 way switch (no rotor fitted)	Ok/Nok	Flight/Brake switch set to Brake. Move 4 way to rear, rotor brake operates	
		Ok/Nok	Flight/Brake switch set to Brake. Move 4 way forward, no action.	
		Ok/Nok	Flight/Brake switch set to Flight. Move 4 way to rear, rotor head is trimmed to the rear.	
		Ok/Nok	Flight/Brake switch set to Flight. Move 4 way forward, pressure releases and rotor is trimmed forward	
	(If roll trim fitted)	Ok/Nok/NA	Move 4 way to the left. Rotor should trim to the left and the LED indicator should indicate left	
(If roll trim fitted)	Ok/Nok/NA	Move 4 way to the Right. Rotor should trim to the right and the LED indicator should indicate right		
<b>46</b>	Carry out a pre-rotation functional check (no rotor fitted)	Ok/Nok	Stick forward, Flight/Brake Switch at Flight, depress the pre-rotator button. Pin must push the Bendix into the crown gear, clutch then engages, rotates the rotor head and rotor rpm is shown on the instrument	
		Ok/Nok	Move stick far enough to the rear that the micro-switch operates. Pre-rotator button should now not operate	
		Ok/Nok	Stick forward, Flight/Brake switch at Brake, rotor brake applied. Depress the 'Overdrive' button on the cockpit panel, and the pre-rotator button on the stick simultaneously. The rotor head should rotate and rpm displayed on the rotor rpm gauge	
<b>47</b>	Carry out a radio functional check if fitted	Radio strength (tower)..... Ok/Nok/NA	Minimum strength <b>4</b> . No interference	
<b>48</b>	Carry out items <b>56 to 58</b> for the rear (MTO) or left (Cavalon) stick if fitted.	Ok/Nok/NA		
<b>49</b>	Confirm all instrument readings of the glass cockpit (if fitted) comply with TADS/TCDS with engine running	Ok/Nok/NA		
<b>50</b>	Ensure all instruments of the rear (instructor) cockpit operate and indicate correctly (if fitted)	Ok/Nok/NA Note ASI and altimeter units must be the same in both seats		
<b>51</b>	Carry out a cabin heating functional check if fitted	Ok/Nok/NA		
<b>52</b>	Carry out a functional check of the pilot and passenger seat heating if fitted	Ok/Nok/NA		
<b>53</b>	Carry out a functional check of the pilot and passenger seat lumbar cushion if fitted	Ok/Nok/NA		
<b>54</b>	Switch off engine using LANE switches (ensure aircraft has run for at least 2 minutes at idle)	Ok/Nok		
<b>55</b>	Switch off keyswitch			
<b>56</b>	Untether the aircraft			
<b>57</b>	Carry out an oil level check – top-up as required	Ok/Nok		
<b>58</b>	Carry out a coolant level check – top-up as required	Ok/Nok		



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59	Carry out a final leak check of all fluid connections/hoses/containers	Ok/Nok		
60	Ensure all tools, equipment and other task related items are removed from the aircraft	Ok/Nok		
61	Carry out a loose article check	Ok/Nok		
62	Carry out any finalization work required			

**Aircraft Maintenance Release: The work recorded above (all pages) has been completed to my satisfaction and in that respect, the aircraft is considered fit to fly**

Name/sig of person completing the work	Date	Observer name/sign confirming task complete as specified	Stamp or authorisation code

**Ok:** Action carried out, assessed as serviceable

**Nok:** Action carried out, assessed as unserviceable, corrective action required

**N/A:** Action is not applicable for this aircraft

**Signature:** Sign the relevant block when the action has been performed, or enter N/P for "Not Performed"

**Remarks:** Enter a unique remark where required, or enter a reference to an extra worksheet or photo attached to this protocol