

RotorSport UK Ltd

Propeller serial No:	Woodcomp SR3000/3 VP Propeller 300hr Service Worksheet	Aircraft registration no. G- Aircraft serial no. RSUK/ Worksheet date:		
Tsk No.	Task Description	Repetition or comments	Actions taken & comment	Cert initial
Purpose of this worksheet: To be applied for the 300hr service of Woodcomp variable pitch propeller as fitted to MT-03 and MTOsport Gyroplanes. If prior to permit renewal, the owner is also referred to Permit renewal requirement list on the RSUK website. Refer to manual RSUK0076. Some of the checks and serviceability are ‘on condition’, meaning the Engineer has the responsibility to decide if it is acceptable for service. NOTE! Unless this service incorporates an annual inspection, checks for CAP747, 661, BG01, BG02 and EASA are optional.				
Installation Inspection				
1	Thoroughly clean the propeller, paying attention to any significant grease loss around the blade roots. Check the a/c installation for any damage. Check all propeller blades and spinner for damage.	Advise owner if any damage observed.	A/c owner may action this item	
2	Remove the propeller and brush carrier. If necessary, transport to RSUK or Woodcomp Service Centre. The service is recommended to be actioned on site with the aircraft if a suitable area exists.	Pack carefully to avoid damage in transit The propeller assembly may be irreparably damaged by bending loads exerted onto the blades by incorrect packaging.	A/c owner may action this item	
3	On the workbench, completely dismantle the propeller. Unless visually damaged leave the two+one cams in place on the respective propeller blades	See service manual RSUK0076		
4	Clean and inspect the slip-rings and backing disk	No cracks permissible, any brush-wear-groove max depth 0.2mm		
5	Check electrical resistance across the brush to slip ring interface	Typical resistance measurement across the brush/slip ring interface : - Inner& outer ring : 0,05Ω Tolerance : $R_p < 0,1 \Omega$		
6	Check electrical resistance between slip ring slip ring	Insulation resistance slip ring / slip ring : 30M Ω Tolerance : $R_i > 20M \Omega$		
7	Check electrical resistance, slip ring to earth	Tolerance : $R_i > 20M \Omega$		

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8	Clean and inspect bearings, gears, worms for wear, corrosion or cracks.	Use hand magnifier at least x12		
9	Inspect the central cone. Replace if any indentation greater than 0.2mm deep, or turn through 60 deg.	Use dial gauge to assess depth of indentation		
10	Inspect brushes, replace if worn by more than 15 mm. OEM length is 20mm	Brush length may be determined in-situ by pushing fully home into the brush carrier. No more than 17mm sub-flush acceptable. Re wirelock screws after refitting the brush box		
11	Inspect blade to blade hub area for evidence of cracks, loose attachment or other defect..	If found, replace!		
12	Inspect both hub halves for any cracks (visually) or significant wear in bearing locations or gear rubbing locations	If cracks found, replace. If wear found that could lead to looseness, backlash, or other defect, either replace or contact RSUK.		
13	Replace blade gears			
14	Replace worm gears			
15	Check axial clearance of worm gears			
16	Inspect power unit visually for cracks or elongated holes. Check drive pinion and front bearing condition. Check function on bench-test at 12VDC	Max current draw is 3amps when fitted to the propeller		
17	Inspect satellite gears	Use hand magnifier at least x12		
18	Inspect all cables for cracked/worn insulation and stability of installation. Check the three microswitches for correct function			
19	Reassemble the propeller using new bolts, nuts and O-rings. If they have been disturbed then reset the three cams to the original positions. Do not fit spinner Check the blade pitch angles, pitch backlash and axial backlash	Maximum blade to blade difference 0.5deg. Ensure backlash is not included in check by rotating each blade to the fine or coarse stop position before measuring	Record blade pitch angles fine and coarse Blade 1 Blade 2 Blade 3 Hub angle	
20	Bench-test operation of propeller			

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21	Static balance the propeller if any major part (eg a blade) has been replaced; alternatively dynamically balance when fitted to the aircraft.				
22	Fit propeller and brush carrier to aircraft, but do not fit spinner. Use new nylock nuts and tab washers				
23	Using the CSC-1/RS controller's manual function set propeller to fine limit. Check proper function of the two microswitches and security of the two cams				
24	Using the CSC-1/RS controller's manual function set propeller to coarse limit. Check proper function of the single microswitch and security of the single cam.				
25	Replace spinner	Use Loctite 243 on the retaining screws Ensure plastic washers in place under screw heads.			
26	Using the CSC-1/RS controller's manual function move propeller from coarse to fine limit. Listen for untoward noises.	Leave at fine limit for subsequent ground run			
	Final ground run checks prior to release				
27	Warm up engine with pilot in front seat. Confirm propeller cycles manually from fine to coarse stops.				
28	Dynamically balance the propeller				
	Complete the release documentation				
29	Ensure all log book entries completed appropriately				
Confirm Service bulletins incorporated (from RSUK website, full list available with applicability)					
Confirm Mandatory Permit Directives incorporated (from CAA website, CAP747 and 661)					

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	CAP 747 Document date or issue checked, plus notes:			
	CAP 661 Document date or issue checked, plus notes:			
	EASA MPD or AD check (EASA website): note date checked and any actions required			
	Confirm compliance to BG01 or BG02, Type Approval data sheet for the MT-03 or MTOsport. Note any non compliances and actions taken.			
Tasks completed by (name): Signature: _____ Initial: _____ (to compare to check sheet) _____ Date: _____			Engine hours logged: Propeller hours logged Airframe hours logged: Aircraft hourmeter hrs logged:	
Permit Maintenance Release: The work recorded above (all pages) has been completed to my satisfaction and in that respect the aircraft is considered fit for flight. Signature: _____ Initial: _____ check sheet) _____ Date: _____ Inspector or licence no.: Company Approval ref Inspector Authority: CAA letter ref 9/ _____ dated _____			Comments:	
Note to Engineer; remember to reference this worksheet and RSUK0012 (MT-03) or044 (MTOsport) within the logbooks, together with your CAA authorisation code. Work undertaken may be noted on this worksheet, or if required on another sheet (such as F093) also referenced in the logbook. Modifications undertaken must be noted with their MC approval no. Check the back pages to complete these too for modifications, service bulletins, MPDs, etc.				