| Aircraft serial no. RSUK/CLDS/ | **Aircraft Short Term Storage and Return to Service Worksheet (Calidus)** | Aircraft registration no: G-<br><br>Worksheet date:<br>Worksheet type: STSRTS |
|---|---|---|
| | Unique worksheet no. (if required/used): | |

| Task No | Task Description | Repetition or comments | Actions taken & comment | Cert initial |
|---|---|---|---|---|
| **Purpose of this worksheet: To be applied when preparing for storage, when in storage, or when returning the aircraft to service from a short-term period of storage/disuse, normally between 6 months and one year after last flight. Should the 1-year period be exceeded then form F157 supercedes this document. Refer also to Aircraft Maintenance Manual RSUK0061. These checks are designed for owner operators and do not require an authorised engineer, unless rectification work is required.** | | | | |
| **Preparing for storage task list** | | | | |
| **NB: It is assumed that the aircraft will be stored in a clean, dry, well-ventilated (but not necessarily heated) building with a sealed floor. Should this not be the case (e.g wet floor, condensation, significant dust) then RSUK should be consulted to consider whether additional actions are required.** | | | | |
| P1 | Drain fuel | Do not store for subsequent replacement. Mogas should not be used after 3months | | |
| P2 | Arrange 240V AC mains supply for Cetek battery charger | Battery will be charged via the external charging point as noted in S5 below. | | |
| P3 | Prepare engine in accordance with Rotax recommendations | Ref: Rotax Heavy Maintenance Manual Section 71-00-00 para 5.2 | | |
| P4 | Ideally protect with RSUK aircraft cover | | | |
| P5 | Ensure rotors in line with aircraft and tie-down fitted. Wrap rotor head in a dust-sheet | Alternatively remove rotors and store on a wall rack (support under blade CG) or break-down and store in suitable container | | |
| P6 | Fit cover to pitot-tube (with small vent for breathing) | Must have flight-safety lanyard or be attached to tie-down cord | | |
| P7 | Cover static vents (2) with a piece of micro-porous adhesive tape | Each tape must be attached to a lanyard of conspicuous colour | | |
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| **In-storage task list – the 3month interval** | | | | |
| S1 | Jack aircraft, spin wheels. Check tyre pressures and tyres for cracks | Spinning avoids flats and brake binding<br>No cracks will be acceptable for Return to Service | Interval 1<br>Interval 2<br>Interval 3<br>Interval 4 | |
| S2 | Check engine for corrosion (propeller shaft/flange, connectors) | Clean and protect with WD40 if required | Interval 1<br>Interval 2<br>Interval 3<br>Interval 4 | |
| S3 | Check for oil or coolant leaks | Arrange rectification if found. | Interval 1<br>Interval 2<br>Interval 3<br>Interval 4 | |
| S4 | Check for bird or rodent nests, wash-off droppings | Air filters, exhaust, behind instrument panel (use mirror and torch), enclosure foot-wells, luggage lockers, engine bay.<br>Pull-back stick gaiters for access to controls. | Interval 1<br>Interval 2<br>Interval 3<br>Interval 4 | |

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| S5 | Check the open-circuit voltage (OCV) of the battery. This may be done by attaching the special magnetic charging cord to the aircraft's external power point (on the RH lower engine cowling), separating its in-line connector and using a multimeter at the two connector terminals. There must be no external load on the battery when the reading is taken. | If less than 12.6VDC (i.e. 2.10 volts per cell) then charge for a 12 hour period or until this OCV is reached. Use only the Cetek charger or the battery may be damaged. | Interval 1<br><br>Interval 2<br><br>Interval 3<br><br>Interval 4 | |
| S6 | Periodically clean aircraft including rotors | Do not use washing-up liquid | | |
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| Return to Service task list | | | | |
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| | **Airframe Inspection** | | | |
| 1 | Remove upper engine cowling. Thoroughly check aircraft for evidence of missing parts or instruments. | Check against aircraft SAC that aircraft is still to the required build standard. | | |
| 2 | Op/C - nosewheel fork for straightness and free operation. | Tip the aircraft onto its tail and visually assess the straightness of the nose-wheel fork.<br>The nose-wheel fork must rotate freely to the limit stops in the nose of the aircraft.<br>There should be minimal play in the bearings of the nose-wheel fork. | | |
| 3 | Inspect – tyres for wear or damage. Replace if needed. | No fabric to show through the tread area.<br>Recommended 0.5mm min tread.<br>Ensure no flat spots or wall cracks from storage | | |
| 4 | Check - tyre pressures & tyre creep (mainwheels 1,5 to 2,2bar if heavily loaded, nose 1,5 to 1,8bar) | | Pressures OK<br>Nose<br>Main LH Main RH | |
| | **Electrical/instruments** | | | |
| 5 | Inspect – sealed battery for leakage | Ensure battery is charged and holding charge (use Cetek charger for 12 hour period or follow S5 above). | | |
| 6 | Op/C Check strobe function if fitted | | | |
| 7 | Op/C check nav light function if fitted | | | |
| 8 | Op/C check backup fuel pump functions | | | |
| 9 | Op/C check landing light function if fitted | | | |

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| | **Rotor head** | | | |
| 10 | Check and Service/lube - teeter bolt & bearings | Regrease via nipple on top of rotor (where fitted). Grease with Castrol LM or equivalent .<br>Nut must not be more than finger tight, about 1 to 2Nm, and the bolt able to turn by hand. | | |
| 11 | Check four split pins present and secure | Main bearing, teeter bolt, pitch and roll bolts.<br>Check is required even if there have been no disassembly actions. | | |
| 12 | Op/C - Check Pitch Trim cylinder for free function and shaft damage or excess seal leakage. | | | |
| 13 | Op/C - Check Roll Trim cylinder (if fitted) for free function and shaft damage or excess seal leakage. | | | |
| | **Rotor Head Controls** | | | |
| 14 | Service/lube - clean rod ends (if appropriate) | | | |
| 15 | F/C- rotor head reaches pitch and roll stops | | | |
| 16 | Inspect - all cables undamaged, all bearings free, all bearing retaining rivets secure. No foreign bodies or debris in control tubes. | Pull-back stick gaiters for access to controls. Check also for insect or animal residue. | | |
| 17 | Op/C - for free play in stick control eg bearings or wear | | | |
| | **Rudder controls** | | | |
| 18 | Op/C - Check pedals for ease of movement | | | |
| 19 | Inspect for cable freedom of movement at tail and pedal attachment, and turnbuckle wirelocking. Check Nicopress sleeves for signs of movement | | | |
| 20 | Inspect - rudder cables for frays, corrosion, wear or chaffing. | Particular attention to cable exit from keel-tubes.<br>If SB-048 has been implemented check security of bush inserts | | |
| 21 | Inspect - tail bearings for looseness and freedom of operation | | | |
| 22 | Inspect tail and rudder for signs of composite damage. | Include waggling the side fins in case of internal structural damage. | | |
| 23 | Inspect – rod-ends and plate at base of rudder for free rotation, security & wear | | | |

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| 24 | Inspect – security of rudder trim tab | | | |
| 25 | Check that all control system bolts are correct items, properly fitted and tight | | | |
| **26** | **Engine**<br>**NOTE! All engine checks to be in accordance with manufacturers manual!** | For engine servicing refer to the engine manual issued with the aircraft (Rotax 912ULS or 914UL). The full annual engine service is required only when no engine servicing has been carried out in the last 12 months. Otherwise apply 'on condition'.<br>Servicing must be carried out in line with, and recorded on, the Rotax service schedule contained within the 'Line Maintenance' manual for the engine fitted. The Rotax service centre will advise additional checks subject to the method of storage used. (e.g. borescope checks). | | |
| 27 | Wirelocking – ensure present on:<br>Oil tank drain plug,<br>Aftermuffler (transverse types),<br>Oil banjo under engine,<br>Carb air filters (if wire-locked),<br>Oil pump | | | |
| 28 | Engine service fasteners | If the magnetic inspection plug or the crankshaft locking screw plug are disturbed then any wire-locking present must be properly reinstated | | |
| 29 | Inspect – oil tank breather pipe for blockage | | | |
| 30 | Service/lube - Lubricate carburettor choke levers if no free movement | HSC2000 spray grease or equivalent | | |
| 31 | Service/lube - Ensure choke and throttles move freely from stop to stop, and that turbo detent can be felt correctly. Ensure cables are synchronised. | | | |
| | **Fuel system** | | | |
| 32 | Check - whilst fuel tank(s) empty, check that low fuel warning LED lights.<br>Service/lube –Fuel tanks. Flush each tank with about 1 litre of fuel then fill with fresh. Ensure water drain points function correctly on refill, and confirm no tank debris.<br>Check – when fuel tanks filled check that low fuel warning light extinguished | There may be a small amount of leakage until the rubber seals swell due to the effect of the fuel. If the fuel drain wirelock is removed, it MUST be replaced, with a dual inspection signature. | | 1st inspection<br>Name:<br>Pilot or auth no.<br><br>Sig<br><br>2nd inspection<br>Name:<br>Pilot or auth no.<br><br>Sig |

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| 33 | Inspect - fuel tank caps for seal deterioration & security of fit | | | |
| 34 | Op/C - functionality of fuel gauge | ie that the reading matches that shown on the tank sight gauge. | | |
| 35 | Inspect – fuel-tank breather pipe for blockage | If 914UL engine also inspect clear airbox/carb-tray drain pipe | | |
| 36 | Inspect - all hoses for cracks and deterioration in the visible areas adjacent to the barbed metal fittings | Change as required | | |
| | **Pre rotator** | | | |
| 37 | Op/C – whilst turning the uj located at the base of the mast by hand (thru a full rotation) – check drive shaft joints for free movement and bearings for play etc | | | |
| 38 | Inspect - Ensure slider shafts move freely, and are greased | | | |
| | **Trim System, Rotor Brake & Pneumatics** | | | |
| 39 | Inspect – all hoses for leaks and slave cylinder(s) for looseness | | | |
| 40 | Op/C – Roll trim. Operate roll trim (where fitted) fully left. Ensure panel indicator shows fully left. Then operate trim fully right. Ensure indicator shows fully right | | | |
| 41 | Inspect – compressor. Listen for undue noises in operation. | | | |

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| 42 | Op/C - Full functional check pneumatic system<br>– refer as required to the maintenance manual for fault finding and rectification, and a more comprehensive understanding of the test background.<br>NB: This test must be carried-out with the canopy closed and latched, so an assistant should be used | With selector set to 'Brake' position, engage brake by pressing button, confirm operation, and that function is acceptable.<br>Pressurise to maximum.<br>Change to flight – check for 2 to 3 sec max to release air from brake system.<br>In 'Flight' position check that trim goes on and off in same direction as button (inc rear switch if fitted).<br>In 'Flight' position, stick forward. Start pre rotator. Ensure bendix drive cylinder rises to engage, and when the stick is pulled back it disengages.<br>Stick to front, release pre rotator and confirm that pressure is applied to trim and stick comes back slightly.<br>In 'Brake' position, put 3 bar pressure on and ensure pre rotator does not function<br>Press the 'Interlock release button' and ensure that pre rotator functions with brake engaged. | | |
| 43 | Op/C – check compressor can give full pressure of 7bar (~8bar with new compressor). If under 5.5bar, either find leak or replace<br>. | | Note pressure obtained | |
| | **HTC Propeller** | | | |
| 44 | Check - prop bolt torque stripe between bolt thread and propeller hub has not been broken (indicating that the bolt has slackened). | If torque stripe broken or missing, remove bolts, inspect, and refit with loctite 243 – and re-apply torque stripe (Engineer task!)<br>Removal of spinner (if fitted) will be required. | | |
| 45 | Inspect - blades to manufacturers recommendations for any damage, splits etc. | Repair only as manufacturer's recommendations (see AMM RSUK0061) | | |
| | **Rotors** | | | |
| 46 | Inspect - blades to manufacturers recommendations for any damage, splits etc. | Repair only as manufacturer's recommendations (see AMM RSUK0061) | | |

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| | **Other** | | | |
| 47 | Remove pitot and 2-off static vent covers | | | |
| 48 | Inspect - Confirm all placards readable and in line with Operating Limitations | See Pilots Handbooks for placards required – or consult CAA TADs publication. | | |
| 49 | Inspect all seat belt attachment points for tightness and security | | | |
| 50 | Inspect each seat belt for damage or frays, and for security of main connection | | | |
| 51 | Op/C - Instrument checks | Transponder - Check that mode S code matches G-INFO database. Full functional check highly recommended.<br>Radio – confirm PTT buttons cause 'T' on panel. | | |
| | **Final ground run checks prior to release** | | | |
| 52 | Inspect - Power plant and coolant system for leaks | | | |
| 53 | Inspect – security of oil-thermostat insulator pad. | | | |
| 54 | Inspect – instruments for measurements consistent with ambient conditions | | | |
| 55 | Replace upper engine cowling and check all access covers secure | | | |
| 56 | Op/C - verify correct function of Fire-Warning system | Turn on Master switch. The fire warning lamp will pulse red three times to confirm correct system function and then go off if the system functions normally. If not it will stay solid red (system fault), in which case stop and investigate | | |
| 57 | Securely tie aircraft down and run to full power. Ensure engine rpm achieves at least 5,400 on one fuel pump only, and with both pumps running. | | RPM achieved: | |
| 58 | Complete mag drop checks at 4,000rpm | See Pilots Handbook RSUK0060 for limits | Mag drop#1<br>Mag drop#2 | |
| 59 | Confirm 'Gen' light is on when engine not running, and off (or flickering gently) when running at above 2000rpm. | | | |

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| 60 | Confirm low fuel lamp is not lit (providing the fuel covers the sensor) | | | |
| 61 | Ensure all log book entries completed appropriately, and service record up to date | | | |
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| Confirm Service bulletins incorporated (from RSUK website, full list available with applicability) | | |
| Confirm Rotax Service bulletins incorporated (from Rotax website) | | |
| Confirm Mandatory Permit Directives incorporated (from CAA website, CAP747 and 661).<br>Up-to-date information must be checked! | | |
| 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 BG04 Type Approval Data Sheet (TADS) for Calidus<br>Note any non-compliances and actions taken. | | |
| Tasks completed by (name):<br><br>Signature: Initial:<br><br>Date: (to compare to check sheet) | Engine hours logged:<br><br>Airframe hours logged:<br><br>Aircraft hourmeter hrs logged: | |

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| **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.**<br><br>Signature: Initial:<br><br>(to compare to<br>Date: check sheet)<br><br>Inspector or pilot licence no.:<br>Company Approval ref<br><br>Inspector Authority: CAA letter ref 9/ dated | Comments: |
| Note to Engineer or inspector; remember to reference this worksheet and RSUK0061 within the logbooks, together with your CAA authorisation code or pilots licence no. 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. | |