

N311SD
S/N: 11361

Date: 08/09/2015

Tach : 553.98
Total Time: 25.9

Inspected and lubricated tail flight controls. Checked and verified flight control deflections to be within BD4 kit specs. Lubricated tachometer cable. Inspected and anti-chafed engine cables and hoses. Tightened fuel lines in the front passenger compartment (from right tank at co-pilots knee) for minor fuel leak. Replaced ELT remote switch battery with new part number DL1/3NB lithium battery. Lithium battery is good for 8 years per AK-450 Operations Manual.

No AD's for this airframe

I certify this Airframe has been inspected on 08/09/2015 in accordance with the scope and detail of 14 CFR part 43, Appendix D, and was found to be in a condition for safe operation.

I certify Ameri-King AK-450 ELT, Serial No. 489533, was checked in accordance with CFR 91.207 (d) and AK Operations Manual and found to be operational and in compliance.

Next ELT check due 08/09/2016.

ELT Battery Due: December 2024
Remote Unit Battery Due: August 2023


Anthony L. Royal A&P/IA 

8/9/2015
Date

[illegible]

N311SD
S/N: 11361

Date: 4/9/2016

Tach: 554.5
Total Time: 26.4

Added heat shields on exhaust for cabin heat SCAT tubing. Replaced flexible hose to and from electric boost pump with Aeroquip 306-6 hose. Pressure tested hose to 4500PSI, no leaks. Installed EZ-Heat 442 engine oil sump pre-heater. Fabricated cylinder pre-heaters from aluminum stock and 80W ¼"x1" cartridge heaters, McMaster-Carr P/N 3618K291 including fabricated firesleeved mil-spec wiring harness. Added firesleeving to oil filter and oil pressure lines. Replaced damaged firesleeving on several oil/fuel lines. Replaced fuel pressure line from servo to firewall with firesleeved Teflon hose P/N AE3660001E0420. Repaired leaking fuel tanks in trailing edge of both wings with West 105 epoxy. Fabricated new cabin heater exhaust shroud to facilitate ram air inlet. Re-worked cabin heat flapper-valve box actuation lever to allow full travel. Fabricated bracket and installed at tail structure station 216.5 to allow for easily removable ballast. Fabricated a 5# and 10# lead ballast and installed both on ballast bracket. Extended wires and moved strobe power supply from firewall to fuselage station 197.25. Fabricated mounting plate at fuselage station 197.25 for strobe power supply and anti-collision-light supply. Removed extra flux compass wiring in tail. Fabricated air box to facilitate use of K&N RC-8220 air filter on turbocharger air inlet. Fabricated hold-down plate to facilitate use of K&N 33-3030 panel air filter for main engine air filter. Modified fiberglass turbocharger inlet to intake air plenum to allow for Skytec starter. Removed starter solenoid on firewall as per Skytec's experimental wiring recommendation. Integrated 40A "ice cube" relay into ignition keyswitch and re-configured to power through circuit breaker. Added shutoff valve to left-tank feed of "Both" setting on fuel selector. Fabricated new right-hand instrument panel mounting plate. Added fuel low-pressure/high-pressure vent/recirculation valve to panel. Fabricated flexible line of Aeroquip 306-4 to connect fuel vent in fuselage to fuel vent in right wing. Added fuel sump under center fuselage for fuel system low-point after right-hand-tank "tee". Fabricated stainless-steel control cable clamps for throttle, mixture, and propeller controls on engine. Fabricated bracket to support rear of avionics trays. Fabricated small copper "ground bus" for single point grounding of avionics. Removed Narco Nav-11, Nav-12, CP-25, UGR-2, and panel VFR GPS from avionics rack. Installed KMA-24, KNS-80, KNI-520, KNS-81, KI-203, and glove box in avionics rack. Added radio PTT-switch on copilot control and autopilot disconnect on both pilot and copilot controls. Added selector switch for tracking either GNC-250XL GPS or KNS-80 RNAV. Rewired interior cabin lighting into separate busses for radios and instrument post lights. Rewired Floscan fuel totalizer sending unit for correct light bulb operation. Modified pilot seats to correctly accommodate mismatched seat rail holes. Added additional seat rail holes so both pilot/copilot latch with full travel. Lubricated main cabin spar with STP before attaching wings. Shortened flexible fuel lines connecting wing tanks to fuselage to reduce chances of having an air trap at low fuel levels. Inspected and adjusted

(Continued on next page)

YEAR: _____ DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
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N311SD (BD-4)
S/N: 11361

Date: 4/9/2016

Tach: 586.44
TTSN: 58.36

Repaired induction leaks in engine intake air box West Systems 105/206 epoxy. Fabricated 1/8"-NPT IAT boss into intake airbox. Re-worked ram air flapper valve with new neoprene seal material and aluminum backing plate. Blocked ram air inlet in cowling so ram air flapper valve functions as alternate air for enging. Fabricated additional aft support brackets for turbo air filter box. Removed left wing, left flap, and left aileron to access weeping fuel tank at trailing edge of wing. Partial disassembly of flap was required to remove aileron torque tube. Repaired fuel leak with West 105/206 epoxy vacuum-pulled into seam, with additional coat of AC-236 A-1/2 (Proseal). Reassembled flap using Proseal and solid AN426-AD-3 rivets at trailing edge. Re-installed left wing and leak-checked with full tank for 5 days without leaks. Replaced left landing and nav light bulbs. Replaced electric fuel boost pump (P/N Dukes 4140-00-19) with unit (S/N 1507141) overhauled by Aeromotors, LLC. Re-worked fuel pressure gauge and recirculation fuel valve plumbing to provide an air buffer with tubing for gauge to reduce pressure indication fluctuations. Repaired faulty solder joints in Flowmaster fuel totalizer electronic box. Replaced vertical speed indicator with serviceable used United Instruments P/N 7030 (S/N F2482), 3000 fpm unit. Replaced 0.062" stainless half-washer air dams on static ports attached with cyanoacrylate adhesive with 0.045" washers and 5-minute epoxy.

9/1/16

Date

Owner/Pilot

YEAR: DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
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N311SD

Date: 4/23/2016

Tach: 560.0

S/N: 11361

Total Time: 31.9

Completed Phase-I test flight hours IAW operating limitations dated 11/24/2015. I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: Vso (65mph), Vx (90mph), and Vy (110mph), at the weight (2300#), and CG location (89.1").

Owner/Pilot

Date

4/23/2016

N311SD
S/N: 11361

Date: 09/01/2016

Tach : 586.44
Total Time: 58.36

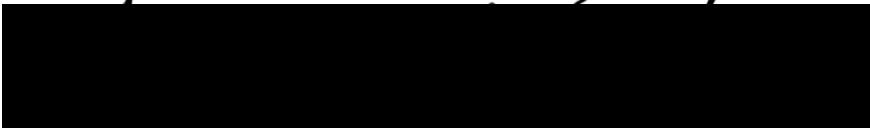
I certify this Airframe has been inspected on 09/01/2016 in accordance with the scope and detail of 14 CFR part 43, Appendix D, and was found to be in a condition for safe operation.

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Next ELT check due 09/01/2017.

ELT Battery Due: December 2024

Remote Unit Battery Due: August 2023


Anthony L. Royal A&P/IA 

9/1/2016
Date