



## Finefield Aviation Inc.

Lake in the Hills Airport  
8399 Pyott Road  
Lake in the Hills, IL 60156

Annual Date-4-13-13

ANNUAL SERVICES DESCRIPTION			Bo Harper			
Aircraft No.	Serial No.	Type Aircraft	Hobbs	TTAF	TSMOH	TSPOH
167JW	D-8792	Beech V35A	1856.8	4486.1	1838.6	1455.5

**Services Performed:**

**Engine**

1. Compression test: 1) 72/80, 2) 70/80, 3) 68/80, 4) 72/80, 5) 76/80, 6) 76/80.
2. Oil has only 16.8 hrs. Cut open oil filter and found no metal contaminants. Installed a new oil filter.
3. Cylinder #1 is cracked at the top spark plug port. Removed cylinder #1, installed repaired exchanged cylinder using new piston rings, seals and gaskets.
4. Timed magnetos to Beech specs.
5. Heater valve shaft grommet is missing. Installed a new upper pivot grommet.
6. Induction drain grommet is deteriorated. Installed a new grommet.
7. Cleaned fuel controller inlet screen, reinstalled and safetied.
8. Cleaned fuel injectors ultrasonically and reinstalled.
9. Alternator bearing inspection is due in 24.5 hrs. Removed alternator ALX-9524R, K011941 and disassembled. Cleaned slip rings and reassembled with new drive end bearings brush set and seals, reinstalled on the engine with a new gasket.
10. Owner requests resistance check of spark plugs supplied by owner. Resistance of owner supplied spark plugs all between 2.9 – 4.5 kohms.
11. Installed 12 owner supplied spark plugs.
12. Checked and tightened rocker cover screws.
13. Tightened induction, breather and instrument air hose clamps.
14. A coating is peeling inside of induction tube aft of induction air filter. Removed coating and cleaned out with vacuum. Reassembled air box and installed a new filter.
15. Lubed controller and found throttle interconnect spring broken. Installed a new spring and checked operation.
16. Washed down engine.
17. Ran up and checked for leaks found none.
18. Pressure checked engine fuel system and found no leaks.
19. Lubed controls and checked rigging.

**Services Performed:**

**Airframe**

1. Owner reports poor heat from the defroster. Glareshield duct and flange have been reduced to 1 ½ inch and 1 inch respectively from OEM 2 ½ inch diameter. Repair deferred.
2. Owner requests a brake hose condition check for possible replacement. Hoses dated Feb. '97. Brake hoses at the caliper and in the well are flexible with no visible signs of abrasion or kinking. Replacement unnecessary.
3. Century III autopilot does not integrate with the heading bug nor the GPS. Advised owner to see JA for this discrepancy.
4. Factory ammeter is inoperable. Troubleshoot, cleaned all connection, installed a new gauge and checked operation.
5. Brake reservoir is low. Found no leaks at the master cylinders or brake calipers and no evidence of leaks on the belly. Serviced brake reservoir with hydraulic oil.
6. Installed new instrument air inlet and inline air filters.
7. Cleaned fuel strainer screen, reassembled with a new gasket and safetied.

8. Fuel electric boost pump vent drain grommet is deteriorated. Installed a new grommet.
9. Fuel strainer door drain pipe is blocked. Blew out drain pipe.
10. ELT batteries are due for replacement. Installed new batteries. ELT batteries next due April 2014.
11. Tested ELT I.A.W. F.A.R. 91.207(d).
12. ELT remote switch battery is due Dec. 2014.
13. Upper landing light is inoperable. Found plug on wire harness bad at bulb. Spliced in a used plug and tested, tested ok.
14. Cabin dome light is inoperable. Opened ceiling panel and installed new lamp, checked operation, ok.
15. Glareshield lights not operational in backup position. Advise owner of the discrepancy.
16. Instrument air suction gauge blows air at the pilot. Advise owner .
17. Cabin speaker does not sound. Opened ceiling finding no overhead speaker installed. Advised owner.
18. Overhead cabin exhaust vent valve knob will not turn. Loosened valve frame screws, broke the valve loose, lubricated the valve, checked operation and track and tightened frame.
19. Upper landing light bezel crack has progressed past the existing stop drill. Drilled additional crack stop hole.
20. One tail cone tinnerman nut clip is broken. Installed a new tinnerman nut clip.
21. IFR certification is due July 2014.
22. Checked shimmy dampener reservoir fluid level to specs.
23. Cleaned and greased wheel bearings and checked brake pads.
24. Greased landing gear fittings.
25. Adjusted left main gear uplock roller clearance to specs.
26. Adjusted right nose gear door to close properly in up position.
27. Tape is falling off inboard main gear door lightening holes. Covered holes with aluminum tape.
28. Right flap inboard and outboard ground straps are about to break. Installed 2 new ground straps.
29. Left wing leading edge inspection plates have 832 screws holding them on instead of 1032 screws. Countersunk inspection plates further and installed using 1032 screws.
30. Baggage door stay rivnut is very loose. Removed old rivnut and installed new.
31. Nose gear steering idler arm has too much side to side play. Remove outboard collar and rotated 180 degrees to tighten up play, and resafetied.
32. Right upper nose gear door retract rod end has too much play. Tightened rod end and safetied .
33. Nose gear door forward retract rod bolt at "A" frame is loose. Tightened nut and installed new cotter pin.
34. Fuel selector light holder inboard rivnut is stripped. Installed longer screw and added nut and tightened.
35. Fuel selector handle is safetied with safety wire instead of a cotter pin. Removed safety wire and installed a new cotter pin.
36. Copilot vent window seal is deteriorated. Removed old seal, cleaned surface with alcohol and installed a new vent window seal.
37. Lubed controls.
38. Right wing root seal is coming loose below cabin door. Reglued seal.
39. Left main gear inboard gear door retract rod at gear box has a lot of play. Removed for repair, fabricated new bushing for rod end at spider. Reassembled using new cotter pin and lubed.
40. Cabin door hinges are getting very sloppy at airframe attachment. Notified owner.
41. Right flap actuator bulkhead is cracked 2 places. 1<sup>st</sup> crack is 3/16 inch long 2<sup>nd</sup> crack goes to nearest nut plate.
42. Installed new foam standby vacuum filter.
43. Adjusted left main gear inboard gear door to close with correct tension and safetied.
44. Checked flap motor top brush, ok.

45. Pilot seat arm rest pivot bolts are loose. Tightened forward nut and added 2 washers under aft nut and tightened.
46. Pilot seat bottom upholstery is coming off. Used pk screws to secure bottom upholstery.
47. Copilot seat bottom rear cross brace has roll pins at each end coming out. Installed new roll pins.
48. Copilot seat front seat track rollers are flat spotted badly. Replaced seat rollers and set roller clearance to specs
49. Washed down gear.
50. Ran up and checked all systems operated normal.

Services Performed: **A.D.'s**

1. C/W AD 76-07-12 Bendix switch by operation. Due again in 100 hrs.
2. C/W AD 97-14-15 Beech cabin door handle inspection by operation. Due again at next handle removal.
3. C/W AD 94-20-04 R2 Beech fuselage inspection of rear bulkheads at F.S. 256.9 and F.S. 272 and found no faults. Due again in 100 hrs.
4. C/W AD 2007-08-04 McCauley prop inspection I.A.W. ASB248. Due again in 100 hrs.
5. C/W AD 2007-08-08 Beech uplock roller and bolt inspection and lubrication. Due again in 100 hrs.
6. C/W S/B 0546-359 Alternator bearing inspection by replacement. Due again in 400 hrs.
7. AD 95-04-03 Beech forward carry thru spar inspection is due at total time 4665.5 hrs.



## Finefield Aviation Inc.

Lake in the Hills Airport  
8399 Pyott Road  
Lake in the Hills, IL 60156

Annual Date-3-1-12

ANNUAL SERVICES DESCRIPTION			Bo Harper			
Aircraft No.	Serial No.	Type Aircraft	Hobbs	TTAF	TSMOH	TSPOH
167JW	D-8792	Beech V35A	1718.1	4347.4	1699.9	1316.8

**Services Performed:**

**Engine**

1. Compression test: 1) 74/80, 2) 67/80, 3) 78/80, 4) 76/80, 5) 76/80, 6) 78/80.
2. Checked magneto timing to specs.
3. Tightened all rocker cover screws.
4. Drained oil and removed oil screen. Checked oil screen for contaminants and found none. Reinstalled screen with new seals. Filled engine with 10 qts. 20W50 Phillips oil.
5. Cleaned fuel controller screen.
6. Right tail pipe is loose on muffler. Installed new nuts and tightened tail pipe on muffler.
7. Mixture control rod end bolt is loose and rod end is binding on control arm. Replaced bolt, and rod end, shimmed properly and tightened.
8. Throttle control rod end bolt is loose and rod end is binding on control arm. Replaced bolt, and rod end, shimmed properly and tightened.
9. Tightened all induction hose clamps.
10. Dressed prop blades.
11. Installed owner supplied induction air filter element.
12. Replaced all instrument air filters.
13. Vacuum pump has 540.2 hrs. on it. Removed vacuum pump p/n: 212CW, s/n: 14419 and installed overhauled pump p/n:216CW s/n: 148156.
14. Installed 12 new owner supplied spark plugs.
15. Air pressure relief valve is loose on bracket. Tightened jam nut.
16. Right heating muffler is bulged badly. Installed repaired muffler using new hardware.
17. Throttle linkage is missing spring. Installed a new spring.
18. Washed down engine.
19. Ran up and checked for leaks found none.
20. Pressure checked engine fuel system and found no leaks.
21. Lubed controls and checked rigging.

**Services Performed:**

**Airframe**

1. Taxi light wire is missing grommet where it enters nose gear tunnel. Installed a new grommet.
2. Landing light bezel has about 4 inch crack across the top of it. Stop drilled both ends of the crack.
3. Elevator trim indicator light is inoperable. Found light making a bad connection. Cleaned connections and tested, ok.
4. ELT batteries due March 2012. Tested ELT I.A.W. F.A.R. 91.207(d). Replaced batteries, next due Jan 2013.
5. Cleaned fuel strainer screen and resealed.
6. Serviced brake reservoir with fluid.
7. Checked landing gear box fluid level, ok.
8. Checked landing gear motor brushes, ok.
9. Serviced tires, cleaned, inspected and greased wheel bearings.
10. One wire on avionics aux circuit breaker switch is loose. Tightened wire.
11. Greased landing gear fittings.
12. Greased tail fittings.

13. ELT remote battery is due for replacement 12/2014 due to being lithium battery. Last replaced 12/2006.
14. Checked shimmy dampener, ok.
15. Compass has air in it. Removed compass, disassembled, cleaned, rebuilt with new seals, serviced with fluid, and reinstalled.
16. Compass light wires are pinched between glare shield and compass support plate under glare shield. Cut out bad section of wire and soldered back together. Filed hole in support plate to line up with hole in glare shield for wires to go thru.
17. Both inboard gear doors are too tight. Adjusted both inboard gear doors rod ends out 1 turn and safetied and checked rigging, ok.
18. Left uplock roller clearance is too great. Adjusted uplock roller clearance to specs.
19. Right main gear is not going up high enough into gear well. Adjusted right main gear up to specs and adjusted up stop bolt.
20. Right uplock cable tension is too low. Adjusted cable tension to specs and safetied.
21. Right uplock roller clearance is too great. Adjusted uplock roller clearance to specs.
22. Both nose gear doors are too tight when closed. Adjusted both gear doors to specs and adjusted rear hinge on right gear door to let gear door lay flat against fuselage.
23. Checked landing gear handcrank clearances both up and down, ok.
24. Checked landing gear downlock tensions, ok.
25. Checked nose gear retract rod shear pin, ok.
26. Checked landing gear, squat switch and throttle warning horn, ok.
27. Screws around outside cabin door handle are loose. Tightened all 6 screws.
28. 2 rudder cable pullies in aft fuselage are not turning. Lubed, freed and operated pullies.
29. Ruddervator aft spar bolts are slightly loose. Tightened bolts.
30. Right flap actuator bulkhead is cracked 2 places ¼ inch each. (Deferred).
31. Right and left main gear uplock cable attach points at stringer in wheel wells has not been changed I.A.W. AD 72-22-01. Removed "L" brackets I.A.W. AD 72-22-01.
32. Right main gear upper scissors pin is rotated and bending stop "U" bracket. Rotated into position, and fabricated new stop, pin and cotter pin.
33. Right main gear outboard gear door rubber strip is coming loose on wing. Used 1300L adhesive to reattach rubber.
34. Nose gear bottom downlock scissors bolt is loose. Tightened 1 castellation and installed new cotter pin.
35. Nose gear steering bolt in front of and above nose gear is loose. Tightened bolt 2 castellations and installed new cotter pin.
36. Right inboard gear door has 1 actuating rod end that is very tight. Removed clevis bolt and checked rod ends, lubed, reinstalled bolt and safetied.
37. Left main gear upper scissors pin has rotated out of position and bent "U" stop. Rotated pin into position and repaired stop, installed new pin and cotter pin.
38. Left main gear inboard gear door bottom hole covering is ripped. Removed old tape and installed aluminum tape.
39. Right pilot's master cylinder snap ring is not engaged all the way. Removed master cylinder from aircraft, disassembled, cleaned, resealed, cleaned groove and installed new retainer clip and bled brakes.
40. Ground wire connection below gear warning horn is loose. Tightened screw.
41. Aileron pulley in center console is not turning. Pulley is rubbing on bracket. Fabricated new bushing for pulley. Adjusted bracket to make space around pulley. Installed new bushing and lubed pullies.
42. Ground wire at Val Avionics multiple circuit box is very loose on firewall above copilot's feet up high. Tightened screw.



43. Control column rollers are dirty. Removed rollers, cleaned and reinstalled with a small amount of white grease lube.
44. Elevator trim indicator wheel has pivot bolt too tight or needs to be lubed. Lubed and worked trim, ok.
45. Pilots vent window seal is deteriorated. Removed old seal and cleaned off glue residue. Installed new seal.
46. Mixture control is loose in panel. Tightened jam nut on back side of panel and tightened base nut on control.
47. Firewall shutoff control is very stiff. Adjusted cable length so it moves to both extremes and lubed.
48. IFR certification is due 5-12. *-DONE WAS*
49. Prop cable is rubbing on aileron cable in center console and on pitch trim cable. Used ty-wraps to keep prop cable from contacting cables.
50. Control wheel "T" bar is loose on control column. Loosened jam nuts and tightened set screws.
51. Washed down landing gear and nose gear tunnel.
52. Right master cylinder line at firewall has an extreme bend. Removed line at firewall and rerouted for no bend at firewall.
53. Fire extinguisher: Right touch model RT-A600 s/n: P-11091, gross weight 25.6 oz. Weight on 1-30-12 is 14.2 oz.
54. Alternator out light is inoperable when alternator is not producing power. Cleaned fuse and traced wires to light fixture. Found lamp not threaded into fixture socket sufficiently. Reinstalled fixture and lamp, operational check, good.
55. Ran up and checked all systems operated normal.
56. Aircraft flies with turn coordinator ball slightly left. Lowered right elevator tab and safetied.
57. Right wing mounting bolts due for torque check. Checked right wing bolt torques.

Services Performed: **A.D.'s**

1. C/W AD 94-20-04 R2 Beech inspection of rear fuselage bulkheads at F.S. 256.9 and F.S. 272 and found no faults. Due again in 100 hrs.
2. C/W AD 2007-08-04 McCauley Propeller inspection I.A.W. ASB248. Due again in 100 hrs.
3. C/W AD 2007-08-08 Beech uplock roller and bolt inspection and lubrication. Due again in 100 hrs.
4. C/W AD 97-14-15 Beech cabin door handle inspection by operation. Due again at next handle removal.
5. C/W AD 76-07-12 Bendix switch by operation. Due again in 100 hrs.
6. AD 95-04-03 Beech forward spar carry thru inspection due at total time 4665.5 hrs.
7. S/B 0546-359 Alternator bearing inspection is due in 163.2 hrs.
8. S/B MSB11-4 Teledyne Continental starter adapter D.N.A. to part number of starter adapter or model of engine.



## Finefield Aviation Inc.

Lake in the Hills Airport  
8399 Pyott Road  
Lake in the Hills, IL 60156

Service Date-11-16-11

SERVICES DESCRIPTION			Bo Harper			
Aircraft No.	Serial No.	Type Aircraft	Hobbs	TTAF	TSMOH	TSPOH
167JW	D-8792	Beech V35A	1669			

### Services Performed:

1. Nose gear indicator reported as inaccurate. Found lower indicator frame screw too long and jamming pivot card. Shortened screw, cycled landing gear, checked nose gear doors and nose strut up tension. Nose gear indicator operation satisfactory.
2. Nose gear is not hitting up stop. Nose gear down brace tension is 64lb. Lengthen left nose gear door retract rod 4 turns, right nose gear door 6 turns and adjusted actuator pin to get nose gear to hit up stop and nose gear doors to close properly.
3. Landing gear has no down handcrank clearance. Checked gear motor braking action, satisfactory. Adjusted down limit switch tab for landing gear down handcrank clearance increase to within specifications. Checked landing gear up handcrank clearance, within specifications.
4. Nose wheel axel nut is finger loose. Tightened nose wheel axel nut and safetied.
5. Charged battery.
6. Drained oil. Cleaned oil screen and reinstalled using new o-rings. Serviced engine with 10 qts. 100W Aeroshell oil and 1 pint of Camguard.
7. Serviced tires and brake reservoir.
8. Washed down engine.
9. Ran up and checked for leaks found none.



## Finefield Aviation Inc.

Lake in the Hills Airport  
8399 Pyott Road  
Lake in the Hills, IL 60156

Service Date-10-13-11

SERVICES DESCRIPTION			Bo Harper			
Aircraft No.	Serial No.	Type Aircraft	Hobbs	TTAF	TSMOH	TSPOH
167JW	D-8792	Beech V35A	1669			

**Services Performed:**

1. Replace VSI with IVSI supplied by owner. Removed existing VSI ( Instrument & Flight research, IFR 3321L, s/n: P2522) and installed owner supplied IVSI ( Aerosonic R3-30-V-LE, 100-384054-3 s/n: 349160). Performed 1000 ft. pitot static leak check, passed.
2. One glare shield wire is broken for flood lights. Installed one new glare shield wiring knife connector for flood lights and checked operation.
3. Glare shield corner screw is pulled through. Secured glare shield with large counter sunk washers.
4. Tail belly panel is secured with incorrect screw type. Reinstalled with correct hardware.
5. Elevator trim switch is inoperative. Cleaned elevator trim switch, four plugs at amplifier box and plug at trim servo. Operational checked – satisfactory on ground.
6. Aircraft is flying uncoordinated ¼ ball to the right. Lowered right elevator tab one full turnbuckle turn and resafetied.
7. Artificial horizon blue cannon plug requires to be reset periodically. Cleaned artificial horizon blue cannon plug pins with scotch brite and contact cleaner.
8. Remove factory CHT probe. Cut and capped factory CHT probe wiring. Removed CHT probe and Insight CHT adaptor probe from cylinder #3.
9. Installed Insight bayonet type CHT probe (p/n: 2852, s/n: 94049) at cylinder #3 and wired to Insight engine monitor.
10. Install oil temperature probe. Installed Insight oil temperature probe (p/n: 610C-022-1, s/n: 1130) in place of case plug near timing plug and resafetied timing plug.
11. Existing OAT sensor inaccurate. Installed new Insight OAT sensor (1200-021, s/n: 7931).
12. Install vibration sensor. Installed Insight vibration sensor (1000-004V s/n: 1077) with new crankcase flange bolt in forward most position. Torqued bolt.
13. Install fuel flow signal adapter. Assembled plug for fuel flow signal adapter with ground power and signal wires. Tapped into Shadin transducer signal wire for data source. Tied fuel flow signal adapter to wire bundle.
14. Install oil pressure sensor. Removed oil pressure hose forward of firewall. Fabricated 2 new hoses for oil pressure line and mounted oil pressure sensor at “T” fitting on firewall.
15. Make manifold air pressure connection. Installed “T” fitting on back of manifold pressure gauge and fabricated hose linking to Insight gauge.
16. Make RPM pick up connection. Connected p lead cable (p/n: 610C-026) to right magneto to p lead and ground, routed through firewall and made plug connections.
17. Install Insight engine monitor display. Removed Insight GEM 610 ( 610-001, s/n: 1136) and installed new Insight G3 display (610C-001, s/n: 1187). Relocated ground wire from engine to airframe. Routed wiring through firewall, tied off, and assembled plug with required shield grounds and probe power.
18. SAM display box screen has segment out. Removed Icarus display (0025-5003 REV A s/n: 16C01210) and installed new display (s/n: 16C01546)
19. Elevator cable is rubbing on cowl flap control in center console area. Tied off cowl flap control away from elevator cable.
20. Insulation forward of flight control scissors is falling off. Secured insulation with adhesive.
21. Elevator balancing weight is hitting wire in center console. Secured wire clear of controls.



22. Cowl flap control stiff. Repositioned control cable for straighter exit from panel mounted housing lubricated pivots, and pressure lubed control.
23. Insight engine monitor power is supplied by main bus while avionics bus is recommended. Relocated Insight circuit breaker power source from main bus to avionics bus.
24. Forward carpet is loose. Screwed down forward carpet with upholstery screws and washers.
25. Connect copilots push to talk button in yoke. Utilizing two unused coil cord wires, routed copilot push to talk wires to copilots yoke and behind panel to panel mounted copilot push to talk. Secured wiring behind panel and along back side of dual yoke.
26. Checked, calculated and adjusted K factor to have Insight fuel flow more accurate.