

SERVICE BULLETIN
STINSON DIVISION
UNIVERSAL AIRCRAFT INDUSTRIES
DENVER, COLO.

BULLETIN NO. 269
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TITLE: Procedure for Installation of 180 HP Franklin 6A335-B1 Engine in lieu of original Franklin 6A4-165-B3.

MODELS AFFECTED: 108-3 Landplane and Skiplane, Serial no. 108-3501 and up.

SECTION I
Parts Removal

1. Remove spinner and propeller.
2. After disconnecting airscoop shroud, heat-muff blast tubes, remove all cowling.
3. Disconnect engine controls, generator wires, starter wires, fuel lines, oil lines, temperature bulbs, tachometer, Mag "P" leads from engine.
4. Remove exhaust stacks, heat muffs and tail stacks
5. Remove engine mount bolts and remove engine.
6. Remove engine mount bolts at firewall and remove mount.

SECTION II
Parts Installed

1. Install new or modified engine mount on airframe. P/N 108-6212000-1.
2. Remove intake pipes from intake manifold on new engine. Assy. 6A-335-B1.
3. Install new engine on mount.
4. Reinstall intake pipes.
5. Remove rear and side engine baffle assy. from old engine and install on new engine.
6. Install prop governor P/N 210453 on left front engine accessory drive pad.
7. Remove oil cooler and mount brackets from old engine. Be sure to flush and clean oil cooler. Mount brackets and cooler installed on new engine in same position as original. Note – Oil cooler must be heat exchanger Model 102-C.
8. Route and connect oil temp. bulb.
9. Remove throttle knob and mount nut from front side of panel.
10. Install prop control bracket and brace P/N U-108-6221512 and U-108-6221511 according to Print U-108-6221510.
11. Route and install prop control P/N 3U700-1075-C-60 according to print and rig U-108-6221510.
12. Reinstall throttle nut and knob.
13. Install new front engine baffle assembly P/N 108-6221201-2.
14. Install carb. P/N 10-4674.
15. Install mixture control bracket on left rear carb. mount bolt.
16. Install adapter to carb. Mixture control lever.
17. Connect mixture control and rig travel.
18. Install carb. air box.
19. Connect carb. air heat control and rig.
20. Connect fuel lines to carb.

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21. Connect throttle and rig.
22. Connect wires to generator.
23. Connect wires to starter.
24. Connect "P" leads to mags.
25. Connect tachometer shaft.
26. Connect engine breather flex. tube.
27. Connect oil pressure gauge line.
28. Connect primer lines.
29. Connect oil sump drain lines.
30. Install cylinder head temp. bulb and adapter in top of #1 cylinder.
31. Install new or modified exhaust mufflers P/N 108-6222702-2.
32. Install tail exhaust pipes.
33. Install exhaust heat muff shrouds.
34. Install lower cowl P/N 108-6021401-78 – connect air flex tubes from cowling to muffs and muff to carb. air box and cabin heat box.
35. Install new nose cowl P/N 108-6021401-76
36. Install transfer tube in engine prop shaft.
37. Install propeller 2A31C21/84S-8.
38. Install spinner P/N 0752004.
39. Install manifold pressure gauge and cyl. Head temp. gauge in panel. Location optional.
40. Connect cyl. Head temp. wires to temp. bayonet and route through firewall with other wiring and connect to gauge.
41. Remove plug ant rear of intake manifold spider and install fitting. Install firewall fitting and connect manifold pressure lines.
42. Install original top cowl.
43. Weigh Aircraft. Empty weight C.G. range is:

With standard baggage at 42"	+10.	to	+ 16.0
With aft baggage compartment	+10.	to	+13.7

If empty wt. C.G. fails within this range, no ballast is required. If empty wt. C.G. falls outside this range, ballast may be required to bring C.G. to proper limits in Spec. A-767. Make proper entry of weight and balance information in the weight and balance section of the Aircraft Records. Equipment list should be revised to reflect new items installed.
44. Run up aircraft and check for oil leaks and proper operation according to Pilot's check list and approved Flight Manual.
45. Make final check of all parts installed for conformity to Installation Diagrams. Complete ACA337 Repair and Alteration form and make log book entry to show the complete installation.
46. F.A.A. approved Flight Manual, Appendix B, shall be attached to and become a part of Stinson Airplane Flight Manual dated 29 December 1948, for Model 108-3.

PARTS REQUIRED FOR CONVERSION
OF 108-3 STINSON TO 6A-335-B1 ENGINE

<u>Part No.</u>	<u>Quantity</u>	<u>Name</u>
6A-335-B1	1	Engine Assy.
2A31C21/84S-8	1	Propeller Assy.
10-4674	1	Carburetor
0752004	1	Spinner Assy. - Cessna
AN509-10R-16	12	Screws
AN960-10	12	Washers
AN365-1032	12	Nuts
3V700-1075-C-60	1	Governor Control - Vernier
U-108-6221511	1	Bracket Assy.
AN3-7	2	Bolt
AN960-3	2	Washer
AN365-1032	2	Nut
AN741-9P	1	Clamp
U-108-6221512	1	Bracket Assy.
AN470-4-4	4	Rivet
0750138	1	Arm-Prop. Control - Cessna
AC755-4-2-8	1	Clamp
AN742-D14	1	Clamp
210453	1	Governor - Woodward
108-6021401-78	1	Bottom Cowl Assy. - Conversion
108-6021401-76	1	Nose Cowl Assy.
U-108-6022421	1	Fairing
6022431	1	Lip
6222801	1	Cuff
6201003-6	1	Clamp
6201003-8	1	Clamp
108-6212000-1	1	Mount Assy.
3062023-1	1	Bracket Battery Box
3062023-2	1	Bracket Battery Box
3062023-3	1	Bracket Battery Box
3062020	1	Inst. Battery Box (Dwg.)
3062024	1	Frame Battery Box
	1	FAA Approved Flight Manual
	1	Manifold Pressure Gauge
	1	Cyl. Head Temp. Gauge
AN5546-1	1	Thermocouple
	1	Thermocouple Lead
AN4076-1	1	Thermocouple Adapter
108-6202000-2	1	Dwg. - Inst. - Power Plant
U-108-6221510	1	Dwg. - Gov. Control Inst.
3062000	1	Fuselage Elect. Dwg.

UNIVERSIAL AIRCRAFT INDUSTRIES

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FAA Approved _____

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