

Amateur-Built Fabrication and Assembly Checklist (2009)

(Fixed Wing)

Name:	Progressive Aerodyne Inc.
Address:	3801 State Road 19, Tavares, Florida 32778
Aircraft:	SeaRey LSX Fast-Build Wing Option
Date:	6/29/2012
Remarks:	NKET Team: Gib Shelpman, William Burke. Checklist derived from standard SeaRey model checklist and technical drawings/data from Fast Build Kit.
This evaluation pertains to and is defined by: SeaRey LSX Assembly Manual Rev 1, Dated 11/16/2011.	

NOTE: This checklist is only applicable to fixed wing aircraft. Evaluation of other types of aircraft (i.e., rotorcraft, balloons, lighter than air) will not be accomplished with this form.

NOTE: This checklist is invalid for and will not be used to evaluate an altered or modified type certificated aircraft with the intent to issue an Experimental Amateur-built Airworthiness Certificate. Such action violates FAA policy and DOES NOT meet the intent of § 21.191(g).

NOTE: Enter "N/A" in any box where a listed task is not applicable to the particular aircraft being evaluated. Use the "Add item" boxes at the end of each section to add applicable unlisted tasks and award credit.

FABRICATION AND ASSEMBLY TASKS				A	B	C	D
				Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Task #	Fuselage – 24 Listed Tasks						
F1	1	Fabricate Longitudinal Members		0.7			
F2	1	Fabricate Composite Cores or Shells, Skins		0.6			
F3	1	Fabricate Bulkheads or Cross members		0.7			
F4	1	Fabricate Control Yokes/Sticks		0.8			
F5	1	Assemble Control Yokes/Sticks		0			
F6	1	Fabricate Flt Control Push Pull Tubes/Cables		0.4			
F7	1	Assemble Flt Control Push Pull Tubes/Cables		0			
F8	1	Assemble Fuselage Basic Structure		0			
F9	1	Fabricate Brackets and Fittings		0.9			
F10	1	Assemble Brackets and Fittings		0			
F11	1	Fabricate Cables, Wire, and Lines		1			
F12	1	Assemble Cables, Wire, and Lines		0			
F13	1	Fabricate Fuselage Fuel System Components		0.7			
F14	1	Assemble Fuselage Fuel System Components		0			
F15		Fabricate Fuselage Covering or Skin		N/A			
F16	1	Assemble Fuselage Covering or Skin		0			
F17	1	Fabricate Windshield		0.2			
F18	1	Assemble Windshield to Fuselage		0			
F19	1	Fabricate Windows		0.1			
F20	1	Assemble Windows to Fuselage		0			
F21	1	Fabricate Doors/Canopy		0.1			
F22	1	Assemble Doors/Canopy to Fuselage		0			
F23	1	Fabricate Mast and Strut Assembly		0.2			
F24	1	Assemble Mast and Strut Assembly		0			
F25	1	Add item: Fabricate Rudder Pedals		0.7			
F26	1	Add item: Assemble Rudder Pedals		0			

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
F27	1	Add item: Fabricate Fuel Tank	0.8			
F28	1	Add item: Assemble Fuel Tank to Fuselage	0			
Total # of Fuselage Tasks		<u>Fuselage Subtotal</u>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
27		<u>Fuselage Total Points</u> ▶	7.9			

Fuselage Comments:
W42 & W43 (Wing Fuel System components) captured in F27 & F28
Note: F16 assemble composite structure
F25 and F26 added items were inadvertently omitted from this checklist revision.

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Task #	Wings – 51 Listed Tasks					
W1	1	Fabricate Wing Spars	1			
W2	1	Assemble Wing Spars to Wing	1			
W3	1	Fabricate Wing Ribs	1			
W4	1	Assemble Wing Ribs to Wing	1			
W5		Fabricate Composite Cores	N/A			
W6		Assemble Composite Cores to Wing	N/A			
W7	1	Fabricate Wing Leading and Trailing Edges	0.8			
W8	1	Assemble Wing Leading & Trailing Edges to Wing	0.8			
W9	1	Fabricate Drag/Anti-drag Truss Members	1			
W10	1	Assemble Drag/Anti-drag Truss Members to Wing	1			
W11	1	Fabricate Wing Brackets and Fittings	1			
W12	1	Assemble Wing Brackets and Fittings to Wing	1			
W13	1	Fabricate Wing Tips	1			
W14	1	Assemble Wing Tips to Wings	1			
W15		Fabricate Special Tools or Fixtures	N/A			
W16	1	Fabricate Aileron Spars	1			
W17	1	Fabricate Aileron Ribs	1			
W18		Assemble Aileron Ribs to Aileron	N/A			
W19	1	Assemble Aileron Primary Structure	1			
W20	1	Fabricate Aileron Leading and Trailing Edges	0.8			
W21	1	Assemble Aileron Leading and Trailing Edges	1			
W22	1	Fabricate Aileron Brackets and Fittings	1			
W23	1	Assemble Aileron Brackets & Fittings to Aileron	1			
W24	1	Fabricate Aileron Covering or Skin	1			
W25	1	Assemble Aileron Covering or Skin to Aileron	1			
W26		Fabricate Aileron Roll Trim	N/A			
W27		Assemble Aileron Trim Tab/Roll Trim to Aileron	N/A			
W28	1	Assemble Aileron to Wing	0			
W29	1	Fabricate Flap Spars	1			
W30		Assemble Flap Spars to Flap	N/A			
W31	1	Fabricate Flap Ribs or Cores	1			
W32		Assemble Flap Ribs or Cores to Flap	N/A			
W33	1	Assemble Flap Primary Structure	1			
W34	1	Fabricate Flap Leading and Trailing Edges	0.8			
W35	1	Assemble Flap Brackets and Fittings to Flap	0			
W36	1	Fabricate Flap Covering or Skin	1			
W37	1	Assemble Flap Covering or Skin to Flap	1			
W38	1	Assemble Flaps to Wing	0			
W39		Fabricate Wing External Lighting Components (optional)	N/A			
W40		Assemble Wing Ext Lighting Components to Wing	N/A			
W41	1	Assemble Basic Wing Structure	1			
W42		Fabricate Wing Fuel System Components	N/A			
W43		Assemble Wing Fuel System Components to Wing	N/A			
W44	1	Fabricate Cables, Wires and Lines	1			

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/	Commercial	Am-Builder	Am-Builder
			Component	Assistance	Assembly	Fabrication
W45	1	Assemble Cables Wires and Lines to Wing	1			
W46	1	Fabricate Wing Covering or Skin	1			
W47	1	Assemble Wing Covering or Skin to Wing	1			
W48	1	Fabricate Wing Struts/Wires	0.9			
W49		Fabricate Fuel Tank	N/A			
W50		Assemble Fuel Tank to Wing	N/A			
W51		Calibrate Fuel System Components	N/A			
W52	1	Add item: Fabricate Flap Bracket and Fittings	0.9			
W53	1	Add item: Assemble Flap Leading and Trailing Edges	0.8			
W54	1	Add item: Assemble Wing Struts/Wires	0			
W55	1	Add item: Assemble Wings to Next Higher Structure	0			
W56	1	Added item: Fabricate Wing Floats	0.9			
W57	1	Added item: Assemble Wing Floats	0			
W58	1	Added item: Fabricate Float Struts	0.9			
W59	1	Added item: Assemble Float Struts	0			
Total # of Wing Tasks		<u>Wings Subtotal</u>	Mfr Kit/Part/Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
44		<u>Wings Total Points ▶</u>	35.6			

Wing Comments:
Wing floats were added.
W18 N/A, Credit for assembling Ailerons Ribs to the Aileron Spars are captured in W29, Assemble Aileron Primary Structure
W30 - W32, Credit for assembling Flap Ribs and Spars to Flap captured in W33, Assemble Flap Primary Structure
W49 & W50 captured in Fuselage Section

FABRICATION AND ASSEMBLY TASKS				A	B	C	D
				Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
FABRICATION AND ASSEMBLY TASKS				A	B	C	D
				Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Task # Empennage – 57 Listed Tasks							
E1	1	Fabricate Horizontal Stabilizer Spars		0.9			
E2	1	Assemble Horizontal Stabilizer Spar(s) to Stabilizer		0			
E3	1	Fabricate Horizontal Stabilizer Ribs or Cores		0.8			
E4	1	Assemble Horizontal Stabilizer Ribs or Cores to Stabilizer		0			
E5		Fabricate Horizontal Stabilizer Leading and Trailing Edge		N/A			
E6		Assemble Horizontal Stabilizer Leading and Trailing Edges to Stabilizer		N/A			
E7	1	Fabricate Horizontal Stabilizer Brackets & Fittings		1			
E8	1	Assemble Horizontal Stabilizer Brackets and Fittings to Stabilizer		0			
E9	1	Assemble Horizontal Stabilizer Structure		0			
E10	1	Fabricate Horizontal Stab Lead/Trailing Edges		0.8			
E11	1	Assemble Horizontal Stabilizer Lead/Trailing Edges to Stabilizer		0			
E12	1	Fabricate Horizontal Stabilizer Cables, Wires and Lines		0.9			
E13	1	Assemble Horizontal Stabilizer Cables, Wires and Lines to Stabilizer		0			
E14	1	Fabricate Horizontal Stabilizer Empennage Covering or Skin		0.1			
E15	1	Assemble Horizontal Stabilizer Empennage Covering or Skin to Stabilizer		0			
E16	1	Assemble Horizontal Stabilizer Structure to Fuselage		0			
E17	1	Fabricate Elevator Spars		0.8			
E18		Assemble Elevator Spars to Elevator		N/A			
E19	1	Fabricate Elevator Ribs		0.8			
E20		Assemble Elevator Ribs to Elevator		N/A			
E21	1	Assemble Elevator Structure		0			
E22	1	Fabricate Elevator Leading and Trailing Edge		0.6			
E23	1	Assemble Elevator Leading and Trailing Edges to Elevator		0			
E24	1	Fabricate Elevator Brackets and Fittings		1			
E25	1	Assemble Elevator Brackets and fittings to Elevator		0			
E26	1	Fabricate Elevator Covering or Skins		0.1			
E27	1	Assemble Elevator Covering or Skins to Elevator		0			
E28	1	Fabricate Elevator Trim Tab (system)		1			
E29	1	Assemble Elevator Trim Tab to Elevator		0			
E30		Fabricate Special Tools or Fixtures		N/A			
E31	1	Fabricate Vertical Stabilizer Spars		0.9			
E32	1	Assemble Vertical Stabilizer Spar to the Vertical Stabilizer		0			
E33	1	Fabricate Vertical Stabilizer Ribs		0.8			
E34	1	Assemble Ribs to Vertical Stabilizer		0			
E35	1	Fabricate Vertical Stabilizer Leading/Trailing Edges		0.8			
E36	1	Assemble Leading and Trailing Edges to Vertical Stabilizer		0			
E37	1	Fabricate Vertical Stabilizer Brackets and Fittings		1			

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/	Commercial	Am-Builder	Am-Builder
			Component	Assistance	Assembly	Fabrication
E38	1	Assemble Brackets and Fittings to Vertical Stabilizer	0			
E39	1	Fabricate Vertical Stabilizer Cables, Wires, Lines	0.9			
E40	1	Assemble Cables, Wires, Lines to Vertical Stabilizer	0			
E41	1	Fabricate Vertical Stabilizer Empennage Covering or Skin	0.1			
E42	1	Assemble Vertical Stabilizer Empennage Covering or Skin to Vertical Stabilizer	0			
E43	1	Assemble Vertical Stabilizer Structure to Fuselage	0			
E44	1	Fabricate Rudder Spar	0.9			
E45		Assemble Rudder Spar to Rudder	N/A			
E46	1	Fabricate Rudder Ribs	0.9			
E47		Assemble Rudder Ribs to Rudder	N/A			
E48	1	Assemble Rudder Structure	0			
E49	1	Fabricate Rudder Leading and Trailing Edge	0.7			
E50	1	Assemble Rudder Leading and Trailing Edge to Rudder	0			
E51	1	Fabricate Rudder Brackets and Fittings	1			
E52	1	Assemble Rudder Brackets & Fittings to Rudder	0			
E53	1	Fabricate Rudder Covering or Skin	0.1			
E54	1	Assemble Rudder Covering or Skin to Rudder	0			
E55	1	Fabricate Rudder Trim Tab	0.6			
E56	1	Assemble Rudder Trim Tab to Rudder	0			
E57	1	Assemble Rudder to Vertical Stabilizer	0			
E58	1	Add item: Assemble Elevator to Horizontal Stabilizer	0			
E59	1	Add item: Assemble Vertical Stabilizer Structure	0			
E60		Add item:				
Total # of Empennage Tasks		<u>Empennage Subtotal</u>	Mfr Kit/Part/Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
52		<u>Empennage Total Points</u> ▶	17.5			

Empennage Comments:

E5 and E6 are duplicate items and therefore were not scored. Credit given in items E10 and E11.

E10 and E11 were trailing edge, leading edge captured in E1.

E18-N/A -E20-N/A Assemble Elevator Spar and Ribs, captured in E21 Assemble Elevator Structure

E20 Assy Elevator Ribs to Elevator, captured in E21;

E28 & E29 is a system which moves the entire elevator surface.

E45-N/A -E47-N/A Assemble Rudder Spar and Ribs, captured in E48 Assemble Rudder Structure

E58 and E59 added items were inadvertently omitted from this checklist revision

FABRICATION AND ASSEMBLY TASKS				A	B	C	D
				Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
FABRICATION AND ASSEMBLY TASKS				A	B	C	D
				Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Task #	Landing Gear – 12 Listed Tasks						
LG1	1	Fabricate Struts		0.8			
LG2	1	Fabricate Brake System Components		0.9			
LG3	1	Fabricate Landing Gear Actuation System Components		1			
LG4	1	Fabricate Landing Gear System Cables, Wires and Lines		0.7			
LG5	1	Assemble Wheels		0			
LG6	1	Assemble Brakes, Tires		0			
LG7	1	Assemble Landing Gear		0			
LG8	1	Assemble Landing Gear System Components Next Level Structure		0			
LG9		Align Landing Gear		N/A			
LG10		Fabricate Landing Gear Fairings/Gear Doors		N/A			
LG11		Assemble Landing Gear Fairings/Gear Doors to Next Level Structure		N/A			
LG12		Perform Landing Gear Operational Check (Normal, Emergency Systems)		N/A			
LG13	1	Add item: Fabricate Landing Gear Bracket and Fittings		1			
LG14	1	Add item: Assemble Landing Gear Bracket and Fittings		0			
LG15		Add item:					
LG16		Add item:					
Total # of Land Gear Tasks		<u>Landing Gear Subtotal</u>		Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
10		<u>Landing Gear Total Points ►</u>		4.4			

Landing Gear Comments:
 LG12: Main gear and tail wheel are retractable, N/A for operational check

FABRICATION AND ASSEMBLY TASKS		A	B	C	D
		Mfr Kit/Part/Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
FABRICATION AND ASSEMBLY TASKS		A	B	C	D
		Mfr Kit/Part/Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Task #	Propulsion – 27 Listed Tasks				
P1	Fabricate Engine Mounts	*			
P2	Assemble Engine Mounts to Next Level Structure	*			
P3	1 Fabricate Engine Cooling System/Baffles	0.7			
P4	1 Assemble Engine Cooling System Baffles to Engine	0			
P5	Fabricate Engine Compartment Overheat/Fire Detection System	N/A			
P6	Assemble Engine Compartment Overheat/Fire Detection System to Engine Compartment	N/A			
P7	Fabricate Induction System	*			
P8	Assemble Induction System to Engine	*			
P9	Fabricate Exhaust System	*			
P10	Assemble Exhaust System to Engine	*			
P11	Fabricate Engine Control Installation Brackets	*			
P12	Assemble Engine Controls to Next Level Structure	*			
P13	Rig and Adjust Engine Controls	N/A			
P14	Fabricate Brackets and Fittings	*			
P15	Assemble Brackets and Fittings to Next Level Structure	*			
P16	1 Fabricate Cables, Wires and Lines	0.7			
P17	1 Assemble Cables, Wires and Lines to next Level Structure	0			
P18	Assemble Engine (Likely N/A)	N/A			
P19	Assemble Engine to Engine Mount	*			
P20	Fabricate Engine Propeller (Likely N/A)	N/A			
P21	Fabricate Propeller Spinner Components	N/A			
P22	Assemble Propeller to Engine	*			
P23	Rig and Track Propeller	N/A			
P24	Fabricate Engine Cowling	N/A			
P25	Assemble Engine Cowling to Airframe	N/A			
P26	1 Fabricate Engine Fuel System Components	0.7			
P27	1 Assemble Engine Fuel System Components to Next Level Structure	0			
P28	Add item: Fabricate Firewall	N/A			
P29	Add item: Assemble Firewall	N/A			
P30	Add item:				
P31	Add item:				

FABRICATION AND ASSEMBLY TASKS		A	B	C	D
		Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Total # of Propulsion Tasks	<u>Propulsion Subtotal</u>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
6	<u>Propulsion Total Points ►</u>	2.1			

Propulsion Comments:

P3 / P4 captures the radiator.
Note: P28 & P29, no fire wall, engine is mounted over the wing.

Asterisk {*} This kit does not include an engine or engine components. These tasks therefore can not be scored in the NKET evaluation. However, since an engine is required for flight, the FAA Inspector (or DAR) will assign values to the proper column for these tasks upon Airworthiness inspection. The use of commercial assistance must be considered during that inspection.

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Task #	Cockpit Interior – 11 Listed Tasks					
C1	1	Fabricate Instrument Panel	0.6			
C2	1	Fabricate Instrument Panel Bracket and Fittings	0.7			
C3	1	Assemble Instrument Panel with Fittings and Brackets	0			
C4		Assemble Avionics to Instrument Panel	N/A			
C5	1	Fabricate Seats	0.8			
C6	1	Fabricate Seat Brackets and Fittings	0.9			
C7	1	Assemble Seats to Cockpit	0			
C8	1	Fabricate Seat Belts Fittings and Shoulder Harness Fittings	0.9			
C9	1	Assemble Seat Belts and Shoulder Harness to Structure	0			
C10		Fabricate Electrical Wiring, Controls and Switches	N/A			
C11	1	Assemble Electrical Systems Controls and Switches to Next Level Structure	0			
C12	1	Add item: Fabricate Closeout Panels/Floor Panels	0.8			
C13	1	Add item: Assemble Closeout Panels/Floor Panels	0			
C14		Add item:				
C15		Add item:				
Total # of Cockpit Tasks	<u>Cockpit Interior Subtotal</u>		Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
11	<u>Cockpit Interior Total Points ►</u>		4.7	0	0	0

Cockpit Comments:
C12 and C13 added items were inadvertently omitted from this checklist revision.

FABRICATION AND ASSEMBLY TASKS		A	B	C	D
		Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
Total # of Aircraft Tasks	◀ SUM #1				
150					

▶ **TOTAL TASKS AND LINE ITEMS**



FABRICATION AND ASSEMBLY SUMMARY		A	B	C	D
		Mfr Kit/Part/ Component	Commercial Assistance	Am Builder Assembly	Am Builder Fabrication
1. Total Points for Each Category.	(Note 1)	72.2			
2. Total Points for Complete Aircraft Construction (SUM # 2 should equal SUM # 1 above).	(Note 2)	(SUM #2) ▶ 150.0			
3. Percentage of Each Category as Part of Total Aircraft Construction.	(Note 3)	48.13%			
4. Total Percentages for Complete Aircraft Construction (Add all percentages in row 3) Total should equal 100% (± .5%). (Note 4)					
Total Builder Points – Add points in row 1, column C and D only, together.	(Note 5)				
Total Builder Percentage – Add percentages in row 3, columns C and D only, together.	(Note 6)				