

# Amateur-Built Fabrication and Assembly Checklist (2009)

(Fixed Wing)

Name:	Zenith Aircraft Company
Address:	Box 650, Mexico, M, 65265
Aircraft:	CH650B
Date:	5/26/2011
Remarks:	National Kit Evaluation Team: William Burke (Lead), Henry Cooper, Earl Schwebach, Joe Palmisano
This evaluation pertains to and is defined by: CH650B Drawings: Edition 2, Dated 8/9/2010, and Airframe Packing List 8/9/2010, and Finishing Packing List, dated 8/9/2010.	

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
<b>Task #</b>	<b>Fuselage – 24 Listed Tasks</b>				
F1	1 Fabricate Longitudinal Members	0.4			
F2	Fabricate Composite Cores or Shells, Skins	N/A			
F3	1 Fabricate Bulkheads or Cross members	0.4			
F4	1 Fabricate Control Yokes/Sticks	0.9			
F5	1 Assemble Control Yokes/Sticks	0			
F6	1 Fabricate Flt Control Push Pull Tubes/Cables	0.5			
F7	1 Assemble Flt Control Push Pull Tubes/Cables	0			
F8	1 Assemble Fuselage Basic Structure	0			
F9	1 Fabricate Brackets and Fittings	0.6			
F10	1 Assemble Brackets and Fittings	0			
F11	Fabricate Cables, Wire, and Lines	N/A			
F12	Assemble Cables, Wire, and Lines	N/A			
F13	Fabricate Fuselage Fuel System Components	N/A			
F14	Assemble Fuselage Fuel System Components	N/A			
F15	1 Fabricate Fuselage Covering or Skin	0.5			
F16	1 Assemble Fuselage Covering or Skin	0			
F17	Fabricate Windshield	N/A			
F18	Assemble Windshield to Fuselage	N/A			
F19	1 Fabricate Windows	0.4			
F20	1 Assemble Windows to Fuselage	0			
F21	1 Fabricate Doors/Canopy	0.5			
F22	1 Assemble Doors/Canopy to Fuselage	0			
F23	Fabricate Mast and Strut Assembly	N/A			
F24	Assemble Mast and Strut Assembly	N/A			
F25	1 Add item: Fabricate Rudder Pedals	0.6			
F26	1 Add item: Assemble Rudder Pedals	0			
F31	Add item:				
<b>Total # of Fuselage Tasks</b>		Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
<b>17</b>		<b>Fuselage Subtotal</b>			
<b>Fuselage Total Points ▶</b>		4.8	0.0	0.0	0.0

Fuselage Comments:  
F25 and F26 added items were inadvertently omitted from this checklist revision.  
F14 captured in canopy

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		0.7			
W2	1	Assemble Wing Spars to Wing		0			
W3	1	Fabricate Wing Ribs or Cores		0.7			
W4	1	Assemble Wing Ribs or Cores to Wing		0			
W5		Fabricate Composite Cores		N/A			
W6		Assemble Composite Cores to Wing		N/A			
W7	1	Fabricate Wing Leading and Trailing Edges		0.6			
W8	1	Assemble Wing Leading & Trailing Edges to Wing		0			
W9		Fabricate Drag/Anti-drag Truss Members		N/A			
W10		Assemble Drag/Anti-drag Truss Members to Wing		N/A			
W11	1	Fabricate Wing Brackets and Fittings		0.6			
W12	1	Assemble Wing Brackets and Fittings to Wing		0			
W13	1	Fabricate Wing Tips		0.8			
W14	1	Assemble Wing Tips to Wings		0			
W15		Fabricate Special Tools or Fixtures		N/A			
W16		Fabricate Aileron Spars (no Spars)		N/A			
W17	1	Fabricate Aileron Ribs or Cores		0.6			
W18		Assemble Aileron Ribs or Cores to Aileron		N/A			
W19	1	Assemble Aileron Primary Structure		0			
W20		Fabricate Aileron Leading and Trailing Edges		N/A			
W21		Assemble Aileron Leading and Trailing Edges		N/A			
W22	1	Fabricate Aileron Brackets and Fittings		0.5			
W23	1	Assemble Aileron Brackets & Fittings to Aileron		0			
W24	1	Fabricate Aileron Covering or Skin		0.6			
W25	1	Assemble Aileron Covering or Skin to Aileron		0			
W26		Fabricate Aileron Roll Trim (optional)		N/A			
W27		Assemble Aileron Trim Tab/Roll Trim to Aileron		N/A			
W28	1	Assemble Aileron to Wing		0			
W29		Fabricate Flap Spars (no spars)		N/A			
W30		Assemble Flap Spars to Flap		N/A			
W31	1	Fabricate Flap Ribs or Cores		0.5			
W32		Assemble Flap Ribs or Cores to Flap		N/A			
W33	1	Assemble Flap Primary Structure		0			
W34		Fabricate Flap Leading and Trailing Edges		N/A			
W35	1	Assemble Flap Brackets and Fittings to Flap		0			
W36	1	Fabricate Flap Covering or Skin		0.6			
W37	1	Assemble Flap Covering or Skin to Flap		0			
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		0			
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		0			
W45	1	Assemble Cables Wires and Lines to Wing		0			
W46	1	Fabricate Wing Covering or Skin		0.6			
W47	1	Assemble Wing Covering or Skin to Wing		0			
W48		Fabricate Wing Struts/Wires		N/A			
W49	1	Fabricate Fuel Tank		0.9			
W50	1	Assemble Fuel Tank to Wing		0			
W51	1	Calibrate Fuel System Components		0			

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
W52	1	Add item: Fabricate Flap Bracket and Fittings	0.6			
W53		Add item: Assemble Flap Leading and Trailing Edges	N/A			
W54		Add item: Assemble Wing Struts/Wires	N/A			
W55	1	Add item: Assemble Wing to Next Level Structure	0			
Total # of Wing Tasks		<b><u>Wings Subtotal</u></b>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
<b>33</b>		<b><u>Wings Total Points ►</u></b>	8.3	0	0	0

Wing Comments:  
W16 + W29 Ailerons and Flaps have no spars.  
W18 captured in task W19  
W32 captured in task W33  
W52, W53 and W54 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 #	Empennage – 57 Listed Tasks				
E1	1 Fabricate Horizontal Stabilizer Spars	0.6			
E2	Assemble Horizontal Stabilizer Spar(s) to Stabilizer	N/A			
E3	1 Fabricate Horizontal Stabilizer Ribs or Cores	0.6			
E4	Assemble Horizontal Stabilizer Ribs or Cores to Stabilizer	N/A			
E5	<del>Fabricate Horizontal Stabilizer Leading and Trailing Edge</del>	N/A			
E6	<del>Assemble Horizontal Stabilizer Leading and Trailing Edges to Stabilizer</del>	N/A			
E7	1 Fabricate Horizontal Stabilizer Brackets & Fittings	0.5			
E8	Assemble Horizontal Stabilizer Brackets and Fittings to Stabilizer	N/A			
E9	1 Assemble Horizontal Stabilizer Structure	0			
E10	Fabricate Horizontal Stab Lead/Trailing Edges	N/A			
E11	Assemble Horizontal Stabilizer Lead/Trailing Edges to Stabilizer	N/A			
E12	Fabricate Horizontal Stabilizer Cables, Wires and Lines	N/A			
E13	Assemble Horizontal Stabilizer Cables, Wires and Lines to Stabilizer	N/A			
E14	1 Fabricate Horizontal Stabilizer Empennage Covering or Skin	0.8			
E15	1 Assemble Horizontal Stabilizer Empennage Covering or Skin to Stabilizer	0			
E16	1 Assemble Horizontal Stabilizer Structure to Fuselage	0			
E17	Fabricate Elevator Spars	N/A			
E18	Assemble Elevator Spars to Elevator	N/A			
E19	1 Fabricate Elevator Ribs Cores	0.5			
E20	Assemble Elevator Ribs Cores to Elevator (captured E21)	N/A			
E21	1 Assemble Elevator Structure	0			
E22	Fabricate Elevator Leading and Trailing Edge	N/A			
E23	Assemble Elevator Leading and Trailing Edges to Elevator	N/A			
E24	1 Fabricate Elevator Brackets and Fittings	0.5			
E25	1 Assemble Elevator Brackets and Fittings to Elevator	0			
E26	1 Fabricate Elevator Covering or Skins	0.8			
E27	1 Assemble Elevator Covering or Skins to Elevator	0			
E28	1 Fabricate Elevator Trim Tab	0.3			
E29	1 Assemble Elevator Trim Tab to Elevator	0			
E30	Fabricate Special Tools or Fixtures	N/A			
E31	Fabricate Vertical Stabilizer Spars	N/A			
E32	Assemble Vertical Stabilizer Spar to the Vertical Stabilizer	N/A			
E33	Fabricate Vertical Stabilizer Ribs Cores	N/A			
E34	Assemble Ribs Cores to Vertical Stabilizer	N/A			
E35	Fabricate Vertical Stabilizer Leading/Trailing Edges	N/A			
E36	Assemble Leading and Trailing Edges to Vertical Stabilizer	N/A			
E37	Fabricate Vertical Stabilizer Brackets and Fittings	N/A			
E38	Assemble Brackets and Fittings to Vertical Stabilizer	N/A			
E39	Fabricate Vertical Stabilizer Cables, Wires, Lines	N/A			
E40	Assemble Cables, Wires, Lines to Vertical Stabilizer	N/A			
E41	1 Fabricate Vertical Stabilizer Empennage Covering or Skin	0.3			
E42	Assemble Vertical Stabilizer Empennage Covering or Skin to Vertical Stabilizer	N/A			
E43	1 Assemble Vertical Stabilizer Structure to Fuselage	0			
E44	1 Fabricate Rudder Spar	0.5			

FABRICATION AND ASSEMBLY TASKS		A	B	C	D
		Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
E45	Assemble Rudder Spar to Rudder	N/A			
E46	1 Fabricate Rudder Ribs or Cores	0.5			
E47	Assemble Rudder Ribs or Cores to Rudder	N/A			
E48	1 Assemble Rudder Structure	0			
E49	Fabricate Rudder Leading and Trailing Edge	N/A			
E50	Assemble Rudder Leading and Trailing Edge to Rudder	N/A			
E51	1 Fabricate Rudder Brackets and Fittings	0.5			
E52	1 Assemble Rudder Brackets & Fittings to Rudder	0			
E53	1 Fabricate Rudder Covering or Skin	0.5			
E54	1 Assemble Rudder Covering or Skin to Rudder	0			
E55	Fabricate Rudder Trim Tab	N/A			
E56	Assemble Rudder Trim Tab to Rudder	N/A			
E57	1 Assemble Rudder to Vertical Stabilizer (fuselage)	0			
E58	1 Add item: Assemble Elevator to Horizontal Stabilizer	0			
E59	Add item: Assemble Vertical Stabilizer Structure	N/A			
E60	Add item:				
Total # of Empennage Tasks	<b><u>Empennage Subtotal</u></b>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
<b>26</b>	<b><u>Empennage Total Points ►</u></b>	6.9	0	0	0

Empennage Comments:

E2 Assy Horz Stab Spar and E4 Assy Horz Stab Ribs credit captured in E9 Assembl Horz Stab Structure  
E5 and E6 are duplicate items and therefore were not scored. Credit given in items E10 and E11.  
E8 Horz Stab Brackets and Fittings (Assy) credit captured in E25 Assemble Elevator Bracket and Fittings operation  
E31 → E43 Aircraft has no Vertical Stabilizer, the entire vertical structure is a fully articulated rudder.  
E20 Assy Elevator Ribs to Elevator, captured in E21;  
E45 and E47 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
<b>Task #</b>	<b>Landing Gear – 12 Listed Tasks</b>				
LG1	1 Fabricate Struts	0.6			
LG2	Fabricate Brake System Components	N/A			
LG3	Fabricate Landing Gear Actuation System Components	N/A			
LG4	Fabricate Landing Gear System Cables, Wires and Lines	N/A			
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	Add item: Fabricate Landing Gear Bracket and Fittings	N/A			
LG14	Add item: Assemble Landing Gear Bracket and Fittings	N/A			
LG15	Add item:				
LG16	Add item:				
Total # of Land Gear Tasks	<b><u>Landing Gear Subtotal</u></b>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
<b>5</b>	<b><u>Landing Gear Total Points ▶</u></b>	0.6	0	0	0

Landing Gear Comments:  
-NONE-

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
<b>Task #</b>	<b>Propulsion – 27 Listed Tasks</b>				
P1	Fabricate Engine Mounts	*			
P2	Assemble Engine Mounts to Next Level Structure	*			
P3	Fabricate Engine Cooling System/Baffles	*			
P4	Assemble Engine Cooling System Baffles to Engine	*			
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	N/A			
P8	Assemble Induction System to Engine	N/A			
P9	Fabricate Exhaust System	*			
P10	Assemble Exhaust System to Engine	*			
P11	Fabricate Engine Control Installation Brackets	N/A			
P12	Assemble Engine Controls to Next Level Structure	N/A			
P13	Rig and Adjust Engine Controls	N/A			
P14	Fabricate Brackets and Fittings	N/A			
P15	Assemble Brackets and Fittings to Next Level Structure	N/A			
P16	1 Fabricate Cables, Wires and Lines	0			
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	*			
P25	Assemble Engine Cowling to Airframe	*			
P26	Fabricate Engine Fuel System Components	N/A			
P27	Assemble Engine Fuel System Components to Next Level Structure	N/A			

FABRICATION AND ASSEMBLY TASKS			A	B	C	D
			Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
P28	1	Add item: Fabricate Firewall	0.6			
P29	1	Add item: Assemble Firewall	0			
P30		Add item:				
P31		Add item:				
Total # of Propulsion Tasks		<b><u>Propulsion Subtotal</u></b>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
<b>4</b>		<b><u>Propulsion Total Points ▶</u></b>	0.6	0	0	0

Propulsion Comments: P28 and P29 added items were inadvertently omitted from this checklist revision.

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
<b>Task #</b>	<b>Cockpit Interior – 11 Listed Tasks</b>				
C1	1 Fabricate Instrument Panel	0.6			
C2	1 Fabricate Instrument Panel Bracket and Fittings	N/A			
C3	1 Assemble Instrument Panel with Fittings and Brackets	0			
C4	1 Assemble Avionics to Instrument Panel	N/A			
C5	1 Fabricate Seats	0.5			
C6	1 Fabricate Seat Brackets and Fittings	N/A			
C7	1 Assemble Seats to Cockpit	0			
C8	1 Fabricate Seat Belts Fittings and Shoulder Harness Fittings	0.6			
C9	1 Assemble Seat Belts and Shoulder Harness to Structure	0			
C10	1 Fabricate Electrical Wiring, Controls and Switches	*			
C11	1 Assemble Electrical Systems Controls and Switches to Next Level Structure	*			
C12	1 Add item: Fabricate Closeout Panels/Floor Panels	0.9			
C13	1 Add item: Assemble Closeout Panels/Floor Panels	0			
C14	Add item:				
C15	Add item:				
Total # of Cockpit Tasks	<b><u>Cockpit Interior Subtotal</u></b>	Mfr Kit/Part/ Component	Commercial Assistance	Am-Builder Assembly	Am-Builder Fabrication
<b>8</b>	<b><u>Cockpit Interior Total Points ►</u></b>	2.6	0	0	0

Cockpit Comments:

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

C4-Avionics or wiring bundles not in kit

All task item blocks annotated with an asterisk {\*} are not supplied with the kit but are required for flight. These tasks must be considered and scored by the FAA inspector / Designee at the time of Airworthiness inspection.

