

May 2004

Dear STOL CH 801 builder:

RE: STOL CH 801 Horizontal Tail

In the May/June 2003 Newsletter (#136) I talked about a larger Horizontal Tail (H.T.) for the STOL CH 801 if the Center of Gravity (C.G.) is forward due to a heavier engine installation. Since then we've built and tested a larger 3,076 mm. span H.T. on Zenith Aircraft's prototype STOL CH 801 aircraft (equipped with the Lycoming O-360 and fixed-pitch metal propeller).

While the original (smaller) H.T. is adequate on the above aircraft, the new H.T. (see enclosed) slightly improves handling characteristics during approaches and landing, and allows for even slower approaches without fear of stalling the H.T. ("running out of elevator") during round-off at landing, even with the C.G. slightly forward of the published forward limit.

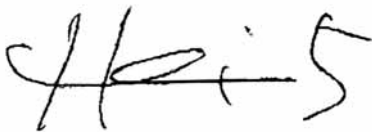
Also, because of the small weight increase of the larger H.T., the C.G. is moved slightly back (this may still not be enough for a heavier engine where some ballast may be required in the rear fuselage).

Zenith Aircraft will make the larger horizontal tail available at a substantial discount to builders who want to replace their existing horizontal tail, and new customers will be supplied with the larger H.T. as standard equipment.

Note: I suggest you reread Newsletter #136 if you intend to or have already modified the original (small) tail by increasing its span: Structurally, this is not acceptable, as the internal structure is simply not strong enough for this.

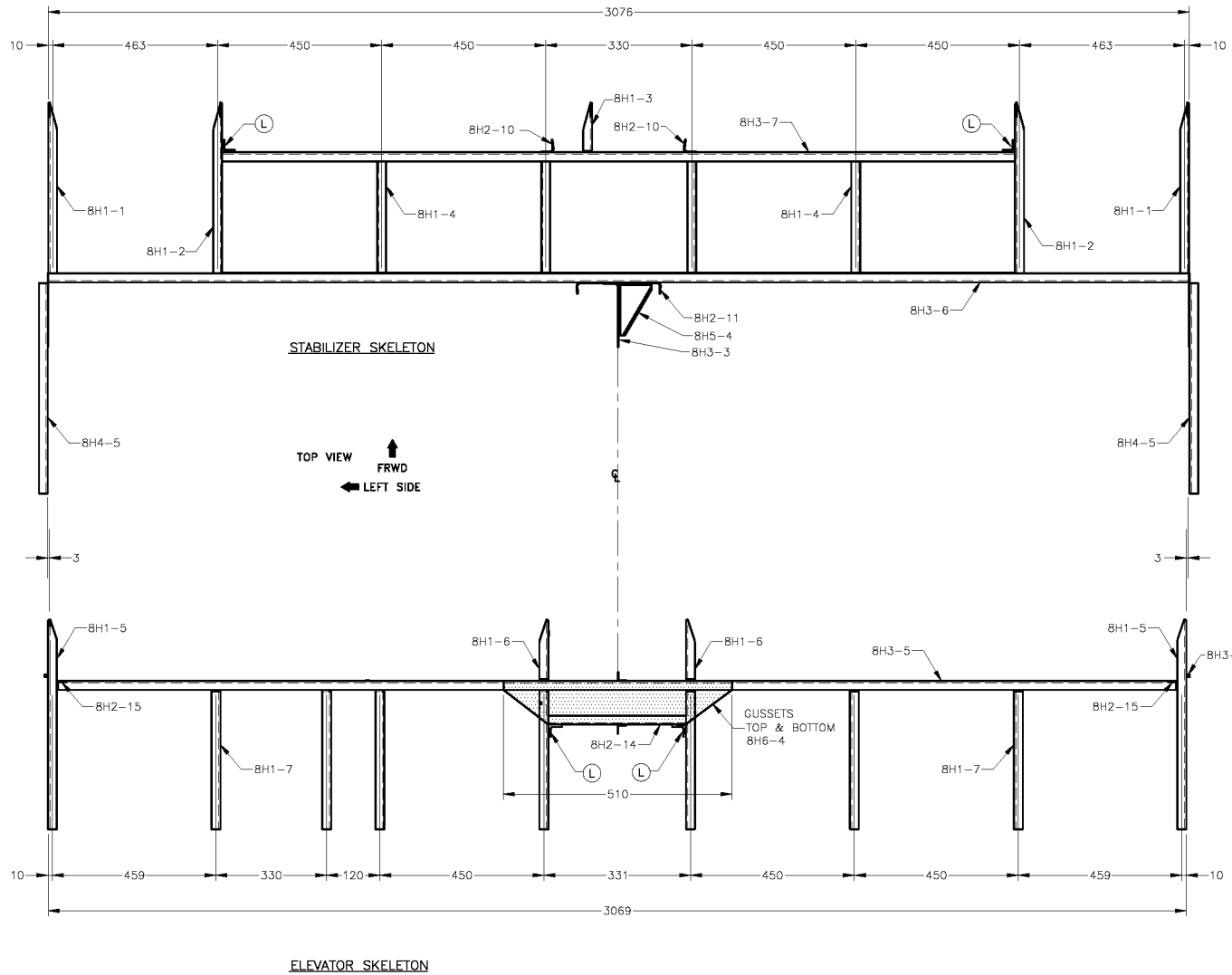
Please contact me if you have any questions regarding this, or contact Zenith Aircraft Company.

Regards,

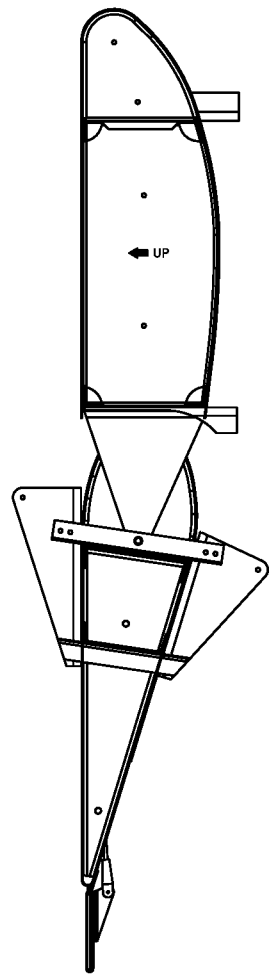


Chris Heintz,
Designer.

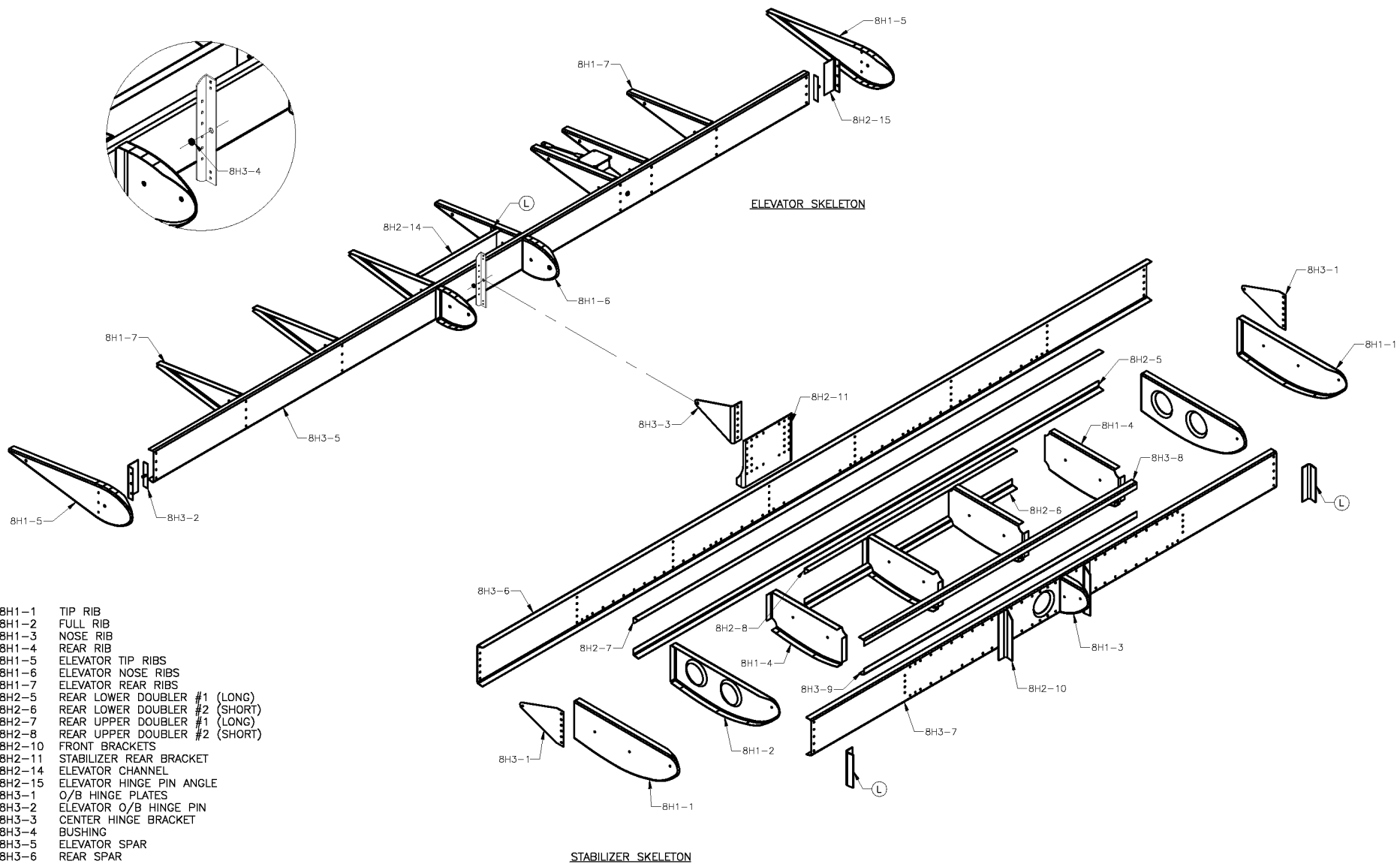
Enclosure: Drawings 8HA-1, 8XH-1 & 2, dated 5/14/04.



STABILIZER
ALL RIVETS A5

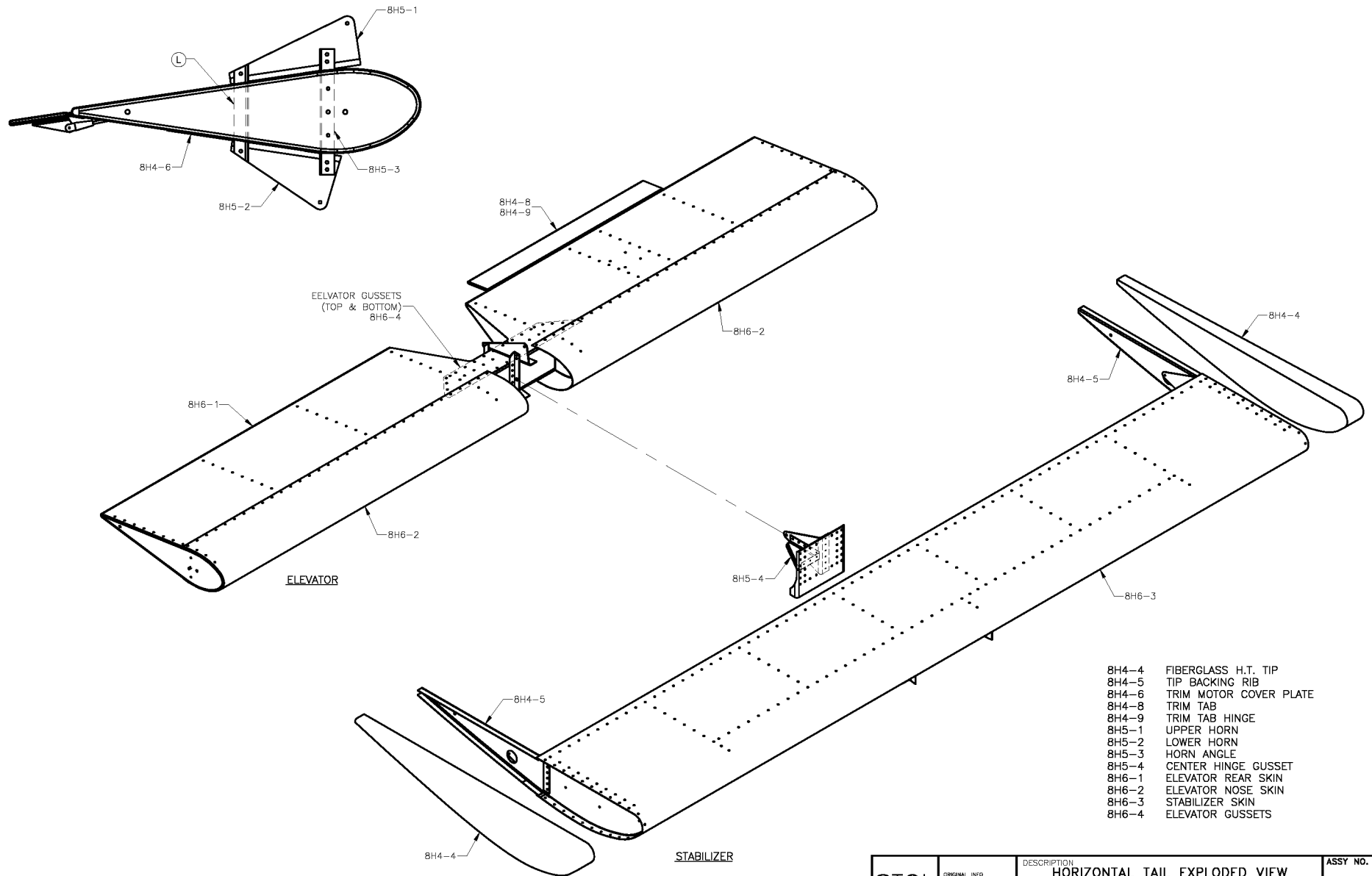


STOL CH 801	<small>ORIGIN: NEG</small> <small>05/14/04</small> <small>REVISION INFO</small>	DESCRIPTION: HORIZONTAL TAIL ASSEMBLY: SKELETON LAYOUT	ASSY NO. 8HA-1
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- 8H1-1 TIP RIB
- 8H1-2 FULL RIB
- 8H1-3 NOSE RIB
- 8H1-4 REAR RIB
- 8H1-5 ELEVATOR TIP RIBS
- 8H1-6 ELEVATOR NOSE RIBS
- 8H1-7 ELEVATOR REAR RIBS
- 8H2-5 REAR LOWER DOUBLER #1 (LONG)
- 8H2-6 REAR LOWER DOUBLER #2 (SHORT)
- 8H2-7 REAR UPPER DOUBLER #1 (LONG)
- 8H2-8 REAR UPPER DOUBLER #2 (SHORT)
- 8H2-10 FRONT BRACKETS
- 8H2-11 STABILIZER REAR BRACKET
- 8H2-14 ELEVATOR CHANNEL
- 8H2-15 ELEVATOR HINGE PIN ANGLE
- 8H3-1 O/B HINGE PLATES
- 8H3-2 ELEVATOR O/B HINGE PIN
- 8H3-3 CENTER HINGE BRACKET
- 8H3-4 BUSHING
- 8H3-5 ELEVATOR SPAR
- 8H3-6 REAR SPAR
- 8H3-7 FRONT SPAR
- 8H3-8 FRONT UPPER DOUBLER
- 8H3-9 FRONT LOWER DOUBLER

STOL CH 801	DRAWING NO. MJM 02/27/02 REVISION NO. 05/14/04	DESCRIPTION HORIZONTAL TAIL EXPLODED VIEW PARTS 8H1-1 TO 8H3-4	ASSY NO. 8XH-1
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- 8H4-4 FIBERGLASS H.T. TIP
- 8H4-5 TIP BACKING RIB
- 8H4-6 TRIM MOTOR COVER PLATE
- 8H4-8 TRIM TAB
- 8H4-9 TRIM TAB HINGE
- 8H5-1 UPPER HORN
- 8H5-2 LOWER HORN
- 8H5-3 HORN ANGLE
- 8H5-4 CENTER HINGE GUSSET
- 8H6-1 ELEVATOR REAR SKIN
- 8H6-2 ELEVATOR NOSE SKIN
- 8H6-3 STABILIZER SKIN
- 8H6-4 ELEVATOR GUSSETS

STOL CH 801	<small> ORIGIN: NFO MJM 02/27/02 REVISED: NFB 05/14/04 </small>	DESCRIPTION	ASSY NO.
		HORIZONTAL TAIL EXPLODED VIEW PARTS 8H4-1 TO 8H5-4	
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