

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

TA5CH Revision 9 Zenair CH2000 October 21, 2011
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TYPE CERTIFICATE DATA SHEET NO. TA5CH

This data sheet, which is part of Type Certificate No. TA5CH, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder:           Zenair Ltd.  
   P.O. Box 235  
   Midland, Ontario  
   Canada L4R 4K8

I - Model CH2000 (Utility Category) Approved July 25, 1995; (Normal Category) Approved January 29, 2003

Engine	Lycoming O-235-N2C with Slick magnetos, MA-3PA carburetor, and Sky-Tec Starter		
Fuel	100/100LL aviation grade		
Oil	SAE grades 15W50 or 20W50 (Refer to Lycoming Service Instruction 1014)		
Engine Limits	Maximum Takeoff Power	2800 r.p.m. (116 hp)	
	Maximum Continuous Power	2800 r.p.m. (116 hp)	
Propeller and Propeller Limits	Sensenich 72-CK-0-46 or 72-CK-0-48		
	Diameter:		Maximum: 72 in (183 cm) Minimum: 70 in (178 cm) No further reduction permitted.
	No. of Blades:		Two
	Pitch:		46" - 48"
	Maximum Static at Full Throttle		2750 r.p.m.
	Minimum Static at Full Throttle		2550 r.p.m.
Airspeed Limits	Vne	Never Exceed Speed	139 KCAS
	Vno	Maximum Structural Cruising Speed	104 KCAS
	V <sub>A</sub>	Maneuvering Speed	104 KCAS
	V <sub>fe</sub>	Maximum Flap Extended Speed	99 KCAS
C.G. Range	Utility Category: +13.8 in to +17.1 in (+350 mm to +435 mm) at 1608 lbs (730 kg) +12.6 in to +17.1 in (+320 mm to +435 mm) at 1475 lbs (670 kg) or less Straight line variation between points given		
	Normal Category: +14.5 in to +17.1 in (+368 mm to +435 mm) at 1692 lbs (768 kg) +12.6 in to +17.1 in (+320 mm to +435 mm) at 1475 lbs (670 kg) or less Straight line variation between points given		
Empty Weight	None		
C.G. Range	None		
Reference Datum	Wing Leading Edge at Rib number 4.		
Levelling Means	Upper Fuselage Longerons.		
Maximum Weight	Utility Category:		
	Takeoff and Landing:	1608 lbs (730 kg)	
	Empty Weight:	1175 lbs (535 kg)	
	Normal Category:		
	Takeoff:	1692 lbs (768 kg)	
	Landing:	1608 lbs (730 kg)	
Empty Weight:	1175 lbs (535 kg)		
Minimum Crew	One (1) Pilot.		
No. of Seats	Two at +16 in (+400 mm)		

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Maximum Baggage	40 lbs (18g) at +50 in (+1,250 mm).		
Fuel Capacity	28 gal (106 liters) at +39.4 in (+1,000 mm) Usable: 27.5 gal (104 liters) (See Note 1)		
Oil Capacity	6 qt (5.7 liters) at -36 in (-914 mm) (See Note 1)		
Control Surface Movements			
	AILERON	15° ± 1° UP	15° ± 1° DOWN
	STABILATOR	12° ± 0.5° T.E. UP	9.5° ± 0.5° T.E. DOWN
	FLAP		50° ± 2° DOWN
	RUDDER	21.5° ± 1.5° left	21.5° ± 1.5° right
Manufacturer's Serial Nos.	Those aircraft shown to comply with Canadian DOT Aircraft Type Approval A-185. The Canadian Department of Transport Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for certification is made.		
	Serial Numbers 20-0002 thru 20-0043 and 20-0063 thru 20-0065 inclusive, and Serial Numbers 20-0069 and subsequent are manufactured by Zenair Ltd.		
	Serial Numbers 20-0044 thru 20-0062 and 20-0066 thru 20-0068, and 20-1001 thru 20-1065 were manufactured by Aircraft Manufacturing & Development Co.		
Import Requirements	A U.S. Airworthiness Certificate may be issued on the basis of the Canadian Department of Transport "Certificate of Airworthiness for Export" signed by or for the Minister of Transport, containing the following statement: "The aircraft covered by this certificate has been examined and found to comply with the data forming the basis for DOT Approval No. A-185, (FAA Type Certificate No. TA5CH)".		
Certification Basis	FAR 21.29 and FAR 23 effective February 1, 1965, as amended by 23-1 through 23-42. JAR-VLA effective April 26, 1990, through Amendment VLA/92/1 effective January 1, 1992, used as a safety equivalence to FAR 23, as provided by AC 23-11.		
	FAR 36 dated December 1, 1969, as amended by current amendment as of the date of type Certification.		
Production Basis	Aircraft Manufacturing & Development Co. Production Certificate 339CE for Serial Numbers 20-0044 thru 20-0062, 20-0066 thru 20-0068, and 20-1001 thru 20-1065.		
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following equipment is also required:  FAA Approved CH2000 Trainer with Lycoming O-235-N2C Airplane Flight Manual dated July 25, 1995 or later approved revision. Current empty weight and balance report to include a list of installed equipment.		
Maintenance and Inspection	Maintenance and Inspection of this aircraft must be carried out according to the most recent publication of the Zenair Ltd. CH2000 Trainer with Lycoming O-235-N2C Service Manual.		

NOTE 1 A current weight and balance report including list of equipment included in certificated empty weight must be provided with each aircraft at the time of original certification. The certificated empty weight and corresponding center of gravity location must include full oil (2.21 lbs at -36 in.), and unusable fuel of 3.31 lbs (1.5 kg) at +39.4 in.

NOTE 2 All placards specified in the FAA Approved Airplane Flight Manual must be displayed in the airplane in the appropriate locations.

NOTE 3 Components which are life limited are listed in Service Manual, Section IIIA. Revisions to the Airworthiness Limitations must be FAA approved.

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- NOTE 4 The following are approved options:
- 1) IFR configuration
    - Night flying lights
    - Wheel fairings
    - Propeller Spinner
    - Vacuum system plus gyros
    - Wing fuel tank
      - Fuel Capacity: Total: 2 x 14.3 gal (2 x 54 liters) at +33 in (+850 mm)
      - Usable: 2 x 13.2 gal (2 x 50 liters)
    - Alternate fuselage fuel tank
      - Fuel Capacity: Total: 34.3 gal (130 liters) at +39.4 in (+1,000 mm)
      - Usable: 33.8 gal (128 liters)
  - 2) Base airplane as defined in IPL #B is an approved configuration.
- NOTE 5 Nose Wheel Travel, right or left 14 degrees  $\pm$  1 degree.
- NOTE 6 Serial number 20-0022 and subsequent are approved for spins as manufactured. Serial number 20-0002 through 20-0021 inclusive are approved for spins when modified by Zenair in accordance with Inspection Parts List (IPL) #RS.

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