UNITED KINGDOM
CIVIL AVIATION AUTHORITY

No. FA72
Issue 2
Date: October 1999
Type: Zenair CH2000

TYPE CERTIFICATE DATA SHEET NO. FA72

This data sheet which is part of CAA Type Certificate No. FA72, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Civil Aviation Authority.

TYPE CERTIFICATE HOLDER:	Zenair Ltd PO Box 235 Midland, Ontario Canada L4R 4KB
MANUFACTURER:	**-** As Above -
AIRCRAFT TYPE/ MODEL NUMBER(S):	Zenair CH2000

In this case, the CAA Type Certification has been granted on the basis of a recommendation from the Joint Aviation Authorities (JAA) following an investigation carried out in accordance with the JAA Joint Certification Procedures. Accordingly, the attached JAA Data Sheet No. JAA/VLA/99/002 Issue -2 dated 7 October 1999 has been accepted by the CAA for the Zenair CH2000.

- END -

JAR-VLA AEROPLANE TYPE DATA SHEET

Data Sheet No	:	JAA/VLA/002
Type	:	Zenair CH2000
Issue	:	2
Date	:	7 October 1999

This Data Sheet prescribes the conditions and limitations under which the product(s) covered meet the standards of airworthiness required for JAA Type Certification. Further information regarding application for Certificate of Airworthiness from particular JAA member states may be obtained by reference to the JAA Validation team final report to the JAA Certification Committee.

Type Certificate Holder	:	Zenair Limited PO Box 235 Midland, Ontario Canada L4R 4K8
Variants covered	:	CH2000

Variant: CH2000

I. General

1. JAA Validation Application Date: August 1996

2. JAA Validation Recommendation Date: 27 August 1999

3. Application Date for Transport Canada Certification: 2 October 1992

4. Transport Canada Certification Date: 26 July 1994

II. Certification Basis

1. Joint Type Certification Basis:
   Joint Airworthiness Requirements JAR-VLA dated 26 April 1990 with amendments VLA/91/1 and VLA/92/1.
   Additional National Design Requirements: see CRI A -02

2. JAA Special Conditions: none

3. JAA Exemptions: none

4. JAA Environmental Standards:
   ICAO Annex 16 Volume 1 (Third Edition), Additional National Requirements see CRI A-03

5. Additional National Design Requirements for Certificate of Airworthiness Issue: see CRI A-04

6. National Administrative Requirements for Certificate of Airworthiness Issue: see CRI A-07

III. Technical Characteristics and Operational Limitations

1. Type Design Definition:
   CH2000 Base Airplane Drwg List 20-0-0 JAA Dated 30 Sep 97
   CH2000 Base Airplane Drwg List 20-0-1 JAA Dated 30 Sep 97
   CH2000 Base Airplane Drwg List 20-0-2 JAA Dated December 1998

2. Description:
   This aircraft is a low wing monoplane of all metal construction with tricycle undercarriage. It has a tractor propeller. Empennage is conventional, with horizontal stabilator and vertical fin and rudder. The elevator trim system is mechanical.

3. Kinds of Operation
   Day VFR only: aerobatics and intentional spinning are prohibited.

4. Required Equipment
   -

5. Dimensions:

Span	8.78	m
Length	7.01	m
Height	2.10	m
Wing Area	12.73	m^2

6. Engine: Lycoming O-235-N2C

6.1 Engine Limits:

Rating	Duration	RPM	Manifold pressure (if applicable)	CHT	Coolant Temp	Oil Temp
Take-off (116 hp)	-	2800	n/a	500°F (260°C)	n/a	245°F(118°C)
Maximum Continuous	-	2800	n/a	500°F(260°C)	n/a	245°F(118°C)

7. Propeller(s):

Type	Sensenich 72-CK-0-46	Sensenich 72-CK-0-48
Number of blades	2	2
Diameter	1830 to 1780 mm (72 to 70 inches)	1830 to 1780 mm (72 to 70 inches)
Pitch	Fixed, 46 inches	Fixed, 48 inches
Static rpm range at full throttle	2750 rpm to 2550 rpm	2750 rpm to 2550 rpm

8. Fuel : 100/100LL aviation grade:
   Capacity :

Tank Option	Total fuel	Usable fuel
Standard Fuselage tank	106 litres	104 litres
Alternative Fuselage tank (instead of fuselage tank)	130 litres	128 litres
Wing Tanks (only - ie instead of a fuselage tank)	2 x 53 litres	2 x 50 litres

   Note: No combinations of tanks are allowed.

9. Oil: SAE grades 15W50 or 20W50 (refer to Lycoming Service Instruction 1014)
   Capacity: 5.7 litres (6 US quarts)

10. Air Speeds:

			ASI Marking
V_{NE}	Never exceed speed	139 KCAS	red radial line
V_{NO}	Maximum structural cruising speed	104 KCAS	low limit of yellow arc
V_A	Manoeuvring speed	104 KCAS	
V_{FE}	Maximum flap extended speed	99 KCAS	upper limit white arc
V_{S1}	Stall speed clean	48 KCAS	low limit of green arc
V_{S0}	Stall speed landing configuration	44 KCAS	low limit of white arc

11. Limit Manoeuvring Load Factors: +4.4/-2.2 g

12. Weights:
    Maximum Take-off Weight 730 kg
    Maximum Landing Weight 730 kg
    Maximum empty weight 535 kg

13. Centre of Gravity Range: linear interpolation between
    +350 mm to +435 mm (+13.8 inches to +17.1 inches) at 730 kg (1606 lb) and
    +320 mm to +435 mm (+12.6 inches to +17.1 inches) at 670 kg (1475 lb)

14. Datum: Wing leading edge at rib number 4

15. Levelling Means: Upper fuselage longeron horizontal

16. Mean Aerodynamic Chord (MAC) 1.450 m (57 inches) not required for cg calculation

17. Minimum Crew: 1

18. Maximum Occupants: 2 (including pilot) at +400 mm (+16 inches)

19. Baggage/Cargo Compartments:
    No baggage allowed.

20. Control Surface Deflections:

Ailerons	Up 15° ± 1°	Down 15° ± 1°
Stabilator	Trailing edge up 12° ± 0.5°	Trailing edge down 9.5° ± 0.5°
Rudder	Right or left 21.5° ± 1.5°	
Flaps down	50° ± 2°	
Stabilator trim	Full nose down: tab trailing edge 10° up Full nose up: tab trailing edge 5° down	relative to stabilator chord when stabilator is neutral

21. Life Limits - see Zenair Service Manual
    Fatigue Life, Main undercarriage beam 10000 hours (based on average 2.7 landings per hour)

IV. Operating and Service Instructions

1. Aeroplane Flight Manual
   "CH2000 Trainer with Lycoming 0-235-N2C" Aircraft Flight Manual dated 8 January 1999 or later approved revisions.

2. Maintenance Manual: Zenair Service Manual and Inspection Parts List (IPL) #RS

3. Service Letters and Service Bulletins

4. Life limited items are covered in the Zenair Service Manual and Inspection Parts List.

V. Notes

1. Nose wheel travel (right or left) 14° ± 1°

2. Serial numbers eligible: 22 and subsequent

3. Skis and floats have not been evaluated and are not approved.