

CIVIL AVIATION AUTHORITY OF THE CZECH REPUBLIC

92-03 Revision 4 MORAVAN – AEROPLANES a.s. Model Z 242 L 15.07.2005

TYPE CERTIFICATE DATA SHEET No. 92-03

This data sheet which is a part of Type Certificate No. 92-03 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Czech Republic.

Model	Application Date	Certification Date
Z 242 L	13.02.1989	22.04.1992

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Model Z 242 L

I. General

1. Data Sheet No.: 92-03
2. Model: Z 242 L
3. Airworthiness category: Normal (N)
Utility (U)
Acrobatic (A)
4. Type Certificate Holder: MORAVAN – AEROPLANES, a.s.
Letiště 1578, 765 81 Otrokovice
5. Manufacturer: up to S/N 0730 including
Moravan a.s.
Letiště 1578, 765 81 Otrokovice
from S/N 0731 including
MORAVAN – AEROPLANES, a.s.
Letiště 1578, 765 81 Otrokovice
6. Application Date: 13.02.1989
7. Certificate Date: 22.04.1992

II. Certification Basis

1. Certification Basis: FAR PART 23, Amdt. 23-36 (including)
2. Special Conditions: None
3. Exemptions: § 23.177(a)(2), (3), Static directional and lateral stability
4. Equivalent Safety Findings: § 23.177(a)(2), (3), Exception to verbal fulfilment.
An equivalent safety is provided.
5. Environmental Standards:
 - ICAO Annex 16/I, Chapter 10
 - FAR PART 36, App. G (Amdt. 36-20)

III. Technical Characteristics and Operational Limitations

1. Type Design Definition: The specification list of Aircraft Z 242 L No. S-L242.0000;
The specification drawing No. L 242.0000
2. Description: The Z 242 L aircraft is two-seat, low wing, single-engine,
cantilever monoplane.
3. Equipment: Master equipment list is stated in “Flight manual of the
ZLIN Z 242 L aircraft” with document No. 003.012
4. Dimensions:

Span:	9.340 m
Length:	6.940 m
Height:	2.950 m
Wing Area:	13.860 m ²
5. Engine:
 - 5.1. Model: TEXTRON Lycoming AEIO-360-A1B6
 - 5.2. Type Certificate: 1E10, Issued by FAA
 - 5.3. Limitations:

Max. Continuous power (MT)	
Max. Power	149 kW
Max. Engine speed	2700 RPM
Max. Consumption	61 l/h
Max. Manifold pressure	101 kPa
Cruising (75 % MC)	
Max. Power	112 kW
Max. Engine speed	2450 RPM
Max. Consumption	46.5 l/h
Max. Manifold pressure	82 kPa
Cruising (65 % MC)	
Max. Power	97 kW
Max. Engine speed	2350 RPM
Max. Consumption	36 l/h
Max. Manifold pressure	78 kPa
6. Propeller:
 - 6.1.1. Model: MTV-9-B-C/C-188-18a
 - 6.1.2. Type Certificate: 32.130/65, Issued by LBA
 - 6.1.3. Number of blades: 3
 - 6.1.4. Diameter: 1880 mm
 - 6.1.5. Sense of Rotation: Right

or

6.2.1. Model:	HC-C3YR-4BF/FC6890	
6.2.2. Type Certificate:	P25EA, Issued by FAA	
6.2.3. Number of blades:	3	
6.2.4. Diameter:	1780 mm	
6.2.5. Sense of Rotation:	Right	
7. Fuel:	Aviation gasoline 100L, 100LL or BL 95 (see service instruction of Engine manufacturer)	
8. Oil:	See Airplane flight manual.	
9. Air Speeds:	Never exceed speed limit	
	V_{NE}	319 km/h IAS
	Normal operating speed limit	
	V_{NO}	250 km/h IAS
	Design manoeuvring speed limit	
	(category A), V_A	265 km/h IAS
	(category U), V_A	248 km/h IAS
	(category N), V_A	224 km/h IAS
	Maximum flaps extended speed limit	
	V_{FE}	184 km/h IAS
	Max. permissible Snap Maneuver Speed for acrobatic category (A)	175 km/h IAS
10. Load factors:	For category Acrobatic (A)	+6.0 g, -3.5 g
	For category Utility (U)	+5.0 g, -3.0 g
	For category Normal (N)	+3.8 g, -1.5 g
11. Maximum Operating Altitude:	For category Acrobatic (A)	4800 m
	For category Utility (U)	4600 m
	For category Normal (N)	4500 m
12. Weights:	Max. Take-off and Landing weight:	
	- For category Acrobatic (A)	970 kg
	- For category Utility (U)	1020 kg
	- For category Normal (N)	
	– Take-off weight	1090 kg
	– Landing weight	1050 kg
	Max. Variable Load:	
	- For category Acrobatic (A)	240 kg
	- For category Utility (U)	290 kg
	- For category Normal (N)	360 kg
	Standard empty weight:	
	With MTV propeller	730 kg \pm 2 %
	With Hartzell propeller	740 kg \pm 2 %

13. Centre of Gravity Range: 19 % ÷ 26 % MAC
14. Datum: The back part of fire wall; from it are measured, for purpose assignation of Gravity Centre, all horizontal length.
15. Mean Aerodynamic Cord (MAC): 1504 mm (MAC position: front MAC point 368.4 mm behind the reference station).
16. Leveling Means: There is 600 mm below relative surface.
17. Minimum Flight Crew: 1
18. Number of seats: 2, (includes crew)
19. Baggage/Cargo Compartments: For category Normal max. 20 kg
20. Control surface deflections:
- | | | |
|----------------------|----------------|---------------------------------------|
| Elevation deflection | up | $34^{\circ} + 0^{\circ}; - 1^{\circ}$ |
| | down | $31^{\circ} + 1^{\circ}; - 0^{\circ}$ |
| Rudder deflection | right and left | $30^{\circ} \pm 2^{\circ}$ |
| Ailerons deflection | up | $21^{\circ} \pm 1^{\circ}$ |
| | down | $17^{\circ} \pm 1^{\circ}$ |
| Wing flaps positions | | |
| | retracted | 0° |
| | take-off | $14^{\circ} \pm 1^{\circ}$ |
| | landing | $37^{\circ} \pm 1^{\circ}$ |
21. Wheels and Tyres: Wheels of main gear K 22-0100-7 with tyre Barum 420 x 150 model 2, or
Wheels of main gear K 22-3100-7 with tyre Mitas 420 x 150 model 2 or with tyre Goodyear 6.00-6.5, P/N 607C41-1.

Wheel of nose gear K 23-0000-7 with tyre Barum 350 x 135 model 2, or
Wheel of nose gear K 51-1100-7 with tyre Mitas 350 x 135 or with tyre Goodyear 5.00-5, P/N 505C61-8
22. Other Limitations: The aircraft is approved for Day and Night VFR and IFR flights.

IV. Operating and Service Instructions

1. Flight Manual

- In Czech language
Letová příručka letounu ZLIN Z 242 L
- In English language
Flight Manual of the ZLIN 242 L Aircraft
For S/N up to 0689 including
Doc. No. 003.012 Flight Manual of the ZLIN 242 L Aircraft
For S/N 0691 and up
Doc. No. 003.012 Flight Manual of the ZLIN 242 L Aircraft

2. Maintenance Manual

- In Czech language
Doc. No. 003.021.1 Návod pro údržbu letounu Z 242 L – část I,
Revidované vydání
Doc. No. 003.031.1 Návod pro údržbu letounu Z 242 L – část II,
Revidované vydání
- In English language
Doc. No. 003.022.1 Maintenance Manual of the Z 242 L Aircraft –
Vol. I, Reissue
Doc. No. 003.032.1 Maintenance Manual of the Z 242 L Aircraft –
Vol. II, Reissue

3. Table of dimensions, limits and clearances

- In Czech English and German language
Doc. No. 003.050 Album rozměrů, tolerancí a vůlí; Table of
dimensions, limits and clearances; Album der
abmessungen, der toleranz-un spielangaben;
Z 242 L

4. Illustrated parts catalog

- In Czech and English language
Doc. No. 003.040.2 Katalog náhradních dílů letounu Z 242 L;
Illustrated parts catalog Z 242 L

V. Notes:

- 1. EASA TC No. EASA.A.027 has been issued for type Z 242 L aircraft on February 4, 2005.**