

# CIVIL AVIATION AUTHORITY OF THE CZECH REPUBLIC

2417/59  
Change 7  
MORAVAN – AEROPLANES a.s.  
Z – 326  
Z – 526  
Z 326 M  
Z 526 M  
11.04.2007

## TYPE CERTIFICATE DATA SHEET No. 2417/59

This data sheet, which is a part of Type Certificate No. 2417/59, 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 – 326	-	13.10.1959
Z – 526	-	26.04.1966
Z 326 M	-	05.02.1976
Z 526 M	-	05.02.1976

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## Model Z – 326

### I. General

1. Data Sheet No.: 2417/59
2. Model: Z – 326
3. Airworthiness category: Normal (N)  
Utility (U)  
Aerobatic (A)
4. Type Certificate Holder: MORAVAN – AEROPLANES, a.s.  
Letiště 1578, 765 81 Otrokovice.
5. Manufacturer: Moravan, n.p.  
Letiště 1578, 765 81 Otrokovice.
6. Application Date: -
7. Certificate Date: 13.10.1959

### II. Certification Basis

1. Certification Basis:
  - Bauvorschriften für Flugzeuge, K5
  - British Civil Airworthiness Requirements, cat D
2. Special Conditions: None.
3. Exemptions: § D2-9.2.1                      Longitudinal trim
4. Equivalent Safety Findings: § D2-9.2.1 – Longitudinal trim is applicable from the speed 135 km/h (IAS) instead of 85 km/h (IAS). The forces affecting controls upon this configuration are inconsiderable, so there is no influence on airplane's handling by the excursion mentioned above
5. Environmental Standards: None.

### III. Technical Characteristics and Operational Limitations

1. Type Design Definition: The specification card of Aircraft Z – 326 has name “Aircraft Z – 326” and the drawing number is “Z326-000”.
2. Description: The Z – 326 aircraft is two-seat, low wing, single-engine, and monoplane.
3. Equipment: Approved equipment list is stated in “Description of aircraft Z – 326 and direction for its operation, chapter IX.”
4. Dimensions:

Span:	10.596 m (10.845 m with external fuel tanks)
Length:	7.820 m
Height:	2.060 m
Wing Area:	15.451 m <sup>2</sup>
5. Engine:
  - 5.1. Model: Walter Minor 6-III
  - 5.2. Type Certificate: No. 132/2-L/6A-a.i.-1947 Ministry of Transportation CZ
  - 5.3. Limitations:

Max. Continuous power	
Max. Power	160 HP
Max. Engine speed	2 500 RPM
Max. Consumption	53 l/h
Max. Cruising power	
Max. Power	125 HP
Max. Engine speed	2 300 RPM
Max. Consumption	38 l/h
6. Propeller:
  - 6.1.1. Model: Z-326.641
  - 6.1.2. Type Certificate: -
  - 6.1.3. Number of blades: 2
  - 6.1.4. Diameter: 2 000 mm
  - 6.1.5. Sense of Rotation: Left, in flight direction.  
  
or
  - 6.2.1. Model: Z-326.641.1
  - 6.2.2. Type Certificate: -
  - 6.2.3. Number of blades: 2
  - 6.2.4. Diameter: 2 000 mm
  - 6.2.5. Sense of Rotation: Left, in flight direction.

or

- 6.3.1. Model: Z 226.640
- 6.3.2. Type Certificate: -
- 6.3.3. Number of blades: 2
- 6.3.4. Diametr: 2 050 mm
- 6.3.5. Sense of Rotation: Left, in flight direction.
7. Fuel: Not-ethylated aviation gasoline, with min. 72 octanes. Application of ethylated fuels is only permitted in case the T.E.L. content does not exceed the value of 0.06% vol.
- LBZ 72
- LBZ 78
- LBE 80
- LBE 87
- Shell 80
- ESSO 80
- AVGAS 100 LL  
(DEFENCE STANDARD 91/90, ASTM D910)
8. Oil: For engine operation are recommended mineral oils with min. kinematic viscosity of 20 cSt at 100°C, whose percentual carbon residue does not exceed the value of 0.4.
- MS 20
- Aeroshell W100
- Aeroshell W120 (in tropical climates)
9. Air Speeds:
- Never exceed speed limit  $v_{NE}$   
category A, U, N 286 km/h IAS
- Maximum speed limit near the ground  $v_H$   
category A, U, N 243 km/h IAS
- Maximum landing gear operating speed  $v_{LO}$   
category A, U, N 140 km/h IAS
- Maximum open landing gear speed  $v_{LE}$   
category A, U, N 286 km/h IAS
- Maximum flaps extended speed limit  $v_{FE}$   
category A, U, N 130 km/h IAS
10. Load factors: For category Acrobatic (A) +6.0 g, -3.0 g  
For category Utility (U) +4.5 g, -1.8 g  
For category Normal (N) +3.5 g, -1.0 g
11. Maximum Operating Altitude: 4 750 m

12. Weights:	<p>Max. Take-off and Landing weight:</p> <ul style="list-style-type: none"> <li>- For category Acrobatic (A) 910 kg</li> <li>- For category Utility (U) 935 kg</li> <li>- For category Normal (N) 975 kg</li> </ul> <p>Max. Variable Load:</p> <ul style="list-style-type: none"> <li>- For category Acrobatic (A) 260 kg</li> <li>- For category Utility (U) 285 kg</li> <li>- For category Normal (N) 316 kg</li> </ul> <p>Standard empty weight with propeller:</p> <ul style="list-style-type: none"> <li>- For category (A), (U) 650 kg <math>\pm</math> 3 %</li> <li>- For category Normal (N) 659 kg <math>\pm</math> 3 %</li> </ul>																																				
13. Centre of Gravity Range:	18.0 % – 30.0 % MAC																																				
14. Datum:	Datum goes through the tubing that supports forward part of airplane body. It is perpendicular to longitudinal axis of the plane.																																				
15. Mean Aerodynamic Cord (MAC):	1 545 mm (distance between beginning of MAC and datum is 601 mm)																																				
16. Leveling Means:	It is identical with axis of upper tube of airplane's body frame.																																				
17. Minimum Flight Crew:	1																																				
18. Number of seats:	2, (pilot seat inclusive).																																				
19. Baggage/Cargo Compartments:	-																																				
20. Control surface deflections:	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Elevator deflection</td> <td style="width: 30%;">up</td> <td style="width: 40%;">25° <math>\pm</math> 1°</td> </tr> <tr> <td></td> <td>down</td> <td>20° <math>\pm</math> 1°</td> </tr> <tr> <td>Elevator trim tab</td> <td>up</td> <td>25° <math>\pm</math> 2°</td> </tr> <tr> <td></td> <td>down</td> <td>40° <math>\pm</math> 2°</td> </tr> <tr> <td>Rudder deflection</td> <td>right and left</td> <td>28° <math>\pm</math> 2°</td> </tr> <tr> <td>Rudder trim tab</td> <td>left</td> <td>5° <math>\pm</math> 1°</td> </tr> <tr> <td></td> <td>right</td> <td>30° <math>\pm</math> 2°</td> </tr> <tr> <td>Ailerons deflection</td> <td>up</td> <td>19° <math>\pm</math> 1° (108 + 5/- 3 mm)</td> </tr> <tr> <td></td> <td>down</td> <td>17° <math>\pm</math> 1° (98 + 5/- 3 mm)</td> </tr> <tr> <td>Wing flaps positions</td> <td>retracted</td> <td>0°</td> </tr> <tr> <td></td> <td>take-off</td> <td>15°</td> </tr> <tr> <td></td> <td>landing</td> <td>40° + 5°/- 3°</td> </tr> </table>	Elevator deflection	up	25° $\pm$ 1°		down	20° $\pm$ 1°	Elevator trim tab	up	25° $\pm$ 2°		down	40° $\pm$ 2°	Rudder deflection	right and left	28° $\pm$ 2°	Rudder trim tab	left	5° $\pm$ 1°		right	30° $\pm$ 2°	Ailerons deflection	up	19° $\pm$ 1° (108 + 5/- 3 mm)		down	17° $\pm$ 1° (98 + 5/- 3 mm)	Wing flaps positions	retracted	0°		take-off	15°		landing	40° + 5°/- 3°
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Wing flaps positions	retracted	0°																																			
	take-off	15°																																			
	landing	40° + 5°/- 3°																																			
21. Wheels and Tyres:	<p>Wheels of main gear landing</p> <p style="padding-left: 40px;">K 12-0100.00 with tyre Barum 420 x 150 model 2</p> <p>or     with tyre Mitas 420 x 150 model 2.</p> <p>Tail wheel</p> <p style="padding-left: 40px;">K 13-0000.00 with tyre Barum 260 x 85</p> <p>or     with tyre Mitas 260 x 85.</p>																																				
22. Other Limitations:	The aircraft is approved for Day VFR flights.																																				

#### IV. Operating and Service Instructions

1. Flight manual
  - In Czech language  
Letová příručka letounu Z – 326, date of issue 1964
  - In English language  
Instruction for Pilot on the use and Handling of the Z – 326 aircraft
2. Maintenance manual
  - In English language  
Description of aircraft Z – 326 and direction for its operation
3. Overhaul manual
  - In Czech language  
Příručka pro generální opravu letounu Z – 326, date of issue 1961
  - In English language  
Instruction Manual for Major Overhaul of Z – 326 Aircraft
4. List of spare parts
  - In Czech, German, English and Russian language  
Seznam náhradních součástí Z – 326  
Katalog der Ersatzteile Z – 326  
Catalogue of Spare Parts Z – 326

#### V. Notes

1. EASA TC No. EASA.A.353 was issued for model Z 326 aircraft on 28.3.2007.

## Model Z – 526

### I. General

1. Data Sheet No.: 2417/59
2. Model: Z – 526
3. Airworthiness category: Normal (N)  
Aerobatic (A)
4. Type Certificate Holder: MORAVAN – AEROPLANES, a.s.  
Letiště 1578, 765 81 Otrokovice.
5. Manufacturer: Moravan, n.p.  
Letiště 1578, 765 81 Otrokovice.
6. Application Date: -
7. Certificate Date: 26.04.1966

### II. Certification Basis

1. Certification Basis:
  - Bauvorschriften für Flugzeuge, K5
  - British Civil Airworthiness Requirements, cat D, AIR 2052
2. Special Conditions: None.
3. Exemptions: § D2-9.2.1                      Longitudinal trim
4. Equivalent Safety Findings: § D2-9.2.1 – Longitudinal trim is applicable from the speed 135 km/h (IAS) instead of 85 km/h (IAS). The forces affecting controls upon this configuration are inconsiderable, so there is no influence on airplane handling by the excursion mentioned above
5. Environmental Standards: None.

### III. Technical Characteristics and Operational Limitations

1. Type Design Definition: The specification card of Aircraft Z – 526 has name “Aircraft Z – 526” and the drawing number is “Z526-000”.
2. Description: The Z – 526 aircraft is two-seat, low wing, single-engine, and monoplane.
3. Equipment: Approved equipment list is stated in “Technical Description, Operation Instructions for Z 526 – Z 526 A Aircraft, chapter IX.”
4. Dimensions:

Span:	10.596 m (10.845 m with external fuel tanks)
Length:	8.00 m
Height:	2.060 m
Wing Area:	15.451 m <sup>2</sup>
5. Engine:
  - 5.1. Model: Walter Minor 6-III
  - 5.2. Type Certificate: No. 132/2-L/6A-a.i.-1947 Ministry of Transportation CZ
  - 5.3. Limitations:

Max. Continuous power	
Max. Power	160 HP
Max. Engine speed	2 500 RPM
Max. Consumption	53 l/h
Max. Cruising power	
Max. Power	125 HP
Max. Engine speed	2 300 RPM
Max. Consumption	38 l/h
6. Propeller:
  - 6.1.1. Model: V 503
  - 6.1.2. Type Certificate: 64 002, issued by Czech CAA
  - 6.1.3. Number of blades: 2
  - 6.1.4. Diameter: 1 950 mm
  - 6.1.5. Sense of Rotation: Left, in flight direction.  
  
or
  - 6.2.1. Model: V 503 A
  - 6.2.2. Type Certificate: 69-02, issued by Czech CAA
  - 6.2.3. Number of blades: 2
  - 6.2.4. Diameter: 2 000 mm
  - 6.2.5. Sense of Rotation: Left, in flight direction.



7. Fuel: Not-ethylated aviation gasoline, with min. 72 octanes. Application of ethylated fuels is only permitted in case the T.E.L. content does not exceed the value of 0.06% vol.
- LBZ 72  
 LBZ 78  
 LBE 80  
 LBE 87  
 Shell 80  
 ESSO 80  
 AVGAS 100 LL  
 (DEFENCE STANDARD 91/90, ASTM D910)
8. Oil: For engine operation are recommended mineral oils with min. kinematic viscosity of 20 cSt at 100°C, whose percentual carbon residue does not exceed the value of 0.4.
- MS 20  
 Aeroshell W100  
 Aeroshell W120 (in tropical climates)
9. Air Speeds:
- |  |              |
|--|--------------|
| Never exceed speed limit $v_{NE}$<br>category A, N             | 292 km/h IAS |
| Maximum speed limit near the ground $v_H$<br>category A, N     | 238 km/h IAS |
| Maximum landing gear operating speed $v_{LO}$<br>category A, N | 140 km/h IAS |
| Maximum open landing gear speed $v_{LE}$<br>category A, N      | 292 km/h IAS |
| Maximum flaps extended speed limit $v_{FE}$<br>category A, N   | 140 km/h IAS |
10. Load factors:
- |                            |                |
|----------------------------|----------------|
| For category Acrobatic (A) | +6.0 g, -3.0 g |
| For category Normal (N)    | +3.5 g, -1.0 g |
11. Maximum Operating Altitude: 5 000 m
12. Weights:
- |                                       |                  |
|---------------------------------------|------------------|
| Max. Take-off and Landing weight:     |                  |
| - For category Acrobatic (A)          | 940 kg           |
| - For category Normal (N)             | 975 kg           |
| Max. Variable Load:                   |                  |
| - For category Acrobatic (A)          | 275 kg           |
| - For category Normal (N)             | 301 kg           |
| Standard empty weight with propeller: |                  |
| - For category (A)                    | 665 kg $\pm$ 3 % |
| - For category Normal (N)             | 674 kg $\pm$ 3 % |
13. Centre of Gravity Range: 17.0 % – 27.4 % MAC

14. Datum:	Level of braces of the first body bulkhead, in horizontal position of aircraft.		
15. Mean Aerodynamic Cord (MAC):	1 545 mm (distance between beginning of MAC and datum is 601 mm)		
16. Leveling Means:	It is 850 mm under basic level defined by levelling points 3 and 4.		
17. Minimum Flight Crew:	1		
18. Number of seats:	2, (pilot's seat inclusive).		
19. Baggage/Cargo Compartments:	Maximum 17 kg in Normal category.		
20. Control surface deflections:	Elevator deflection	up	$25^{\circ} \pm 1^{\circ}$
		down	$20^{\circ} \pm 1^{\circ}$
	Elevator trim tab	up	$25^{\circ} \pm 2^{\circ}$
		down	$40^{\circ} \pm 2^{\circ}$
	Rudder deflection	right and left	$28^{\circ} \pm 2^{\circ}$
	Rudder trim tab	left	$5^{\circ} \pm 1^{\circ}$
		right	$30^{\circ} \pm 2^{\circ}$
	Ailerons deflection	up	$108 + 5/- 3$ mm
		down	$98 + 5/- 3$ mm
	Wing flaps positions	retracted	$0^{\circ}$
	take-off	$15^{\circ}$	
	landing	$40^{\circ} + 5^{\circ}/- 3^{\circ}$	
21. Wheels and Tyres:	Wheels of main gear landing		
	K 12-0100.00 with tyre Barum 420 x 150 model 2 or with tyre Mitas 420 x 150 model 2.		
	Tail wheel		
	K 13-0000.00 with tyre Barum 260 x 85 or with tyre Mitas 260 x 85.		
22. Other Limitations:	The aircraft is approved for Day VFR flights.		

#### IV. Operating and Service Instructions

1. Flight manual
  - In Czech language  
Letová příručka školního a akrobatického letounu Z – 526
  - In English language  
Instruction for Pilot on the Use and Handling of the Training and Acrobatic Z – 526 and Z – 526 A Aircraft
2. Maintenance manual
  - In Czech language  
Technický popis a návod k obsluze letounu Z – 526 a Z – 526 A
  - In English language  
Technical Description, Operation Instructions for Z 526 – Z 526 A Aircraft
3. Overhaul Manual
  - In English language  
Major Overhaul of Z – 526, Z – 526 A Aircraft
4. List of spare parts
  - In Czech, German, English, Spanish and Russian language  
Seznam náhradních součástí Z – 526  
Katalog der Ersatzteile Z – 526  
Catalogue of Spare Parts Z – 526  
List de piezas de repuesto Z – 526

#### V. Notes

1. EASA TC No. EASA.A.353 was issued for model Z 526 aircraft on 28.3.2007.

## Model Z 326 M

### I. General

1. Data Sheet No.: 2417/59
2. Model: Z 326 M
3. Airworthiness category: Normal (N)  
Utility (U)
4. Type Certificate Holder: MORAVAN – AEROPLANES, a.s.  
Letiště 1578, 765 81 Otrokovice.
5. Manufacturer: Moravan, n.p.  
Letiště 1578, 765 81 Otrokovice.
6. Application Date: -
7. Certificate Date: 05.02.1976

### II. Certification Basis

1. Certification Basis:
  - Bauvorschriften für Flugzeuge, K5
  - British Civil Airworthiness Requirements, cat D
2. Special Conditions: None.
3. Exemptions: § D2-9.2.1                      Longitudinal trim
4. Equivalent Safety Findings: § D2-9.2.1 – Longitudinal trim is applicable from the speed 135 km/h (IAS) instead of 85 km/h (IAS). The forces affecting controls upon this configuration are inconsiderable, so there is no influence on airplane's handling by the excursion mentioned above
5. Environmental Standards: None.

### III. Technical Characteristics and Operational Limitations

1. Type Design Definition: The specification card of Aircraft Z 326 M has name “Conversion from Z 326 to Z 326 M aircraft” and the drawing number is “M 326.000”.
2. Description: The Z 326 M aircraft is two-seat, low wing, single-engine, and monoplane.
3. Equipment: Approved equipment list is stated in “Popis – obsluha – údržba Z 326 M, MS kapitola 11.”
4. Dimensions:

Span:	10.596 m (10.845 m with external fuel tanks)
Length:	7.800 m
Height:	2.060 m
Wing Area:	15.451 m <sup>2</sup>
5. Engine:
  - 5.1. Model: M 137 A
  - 5.2. Type Certificate: 69-01, issued by Czech CAA
  - 5.3. Limitations:

Max. Take-off power	
Max. Power	132 kW, (180 k)
Max. Engine speed	2 750 RPM
Max. Consumption	59 l/h
Max. Manifold pressure	103 kPa
Max. Continuous power	
Max. Power	118 kW, (160 k)
Max. Engine speed	2 680 RPM
Max. Consumption	52 l/h
Max. Manifold pressure	98 kPa
Max. Cruising power	
Max. Power	103 kW, (140 k)
Max. Engine speed	2 580 RPM
Max. Consumption	44 l/h
Max. Manifold pressure	90 kPa
6. Propeller:
  - 6.1.1. Model: Z – 42.6411
  - 6.1.2. Type Certificate: č. 70-06, issued by Czech CAA
  - 6.1.3. Number of blades: 2
  - 6.1.4. Diameter: 2 050 mm
  - 6.1.5. Sense of Rotation: Left, in flight direction.  
or

- 6.2.1. Model: Z-326.641.1
- 6.2.2. Type Certificate: -
- 6.2.3. Number of blades: 2
- 6.2.4. Diametr: 2 000 mm
- 6.2.5. Sense of Rotation: Left, in flight direction.
7. Fuel: Not-ethylated aviation gasoline, with min. 72 octanes. Application of ethylated fuels is only permitted in case the T.E.L. content does not exceed the value of 0.06% vol.
- LBZ 72
- LBZ 78
- SHELL 80
- ESSO 80 (TEO max. 0.06 % objemu)
- Grade 100/130 (TEO max. 0.06% objemu)
- AVGAS 100 LL  
(DEFENCE STANDARD 91/90ASTM D910).
- AVGAS 100 L
- AVGAS 80
8. Oil: For engine operation are recommended mineral oils with min. kinematic viscosity of 20 cSt at 100°C, whose percentual carbon residue does not exceed the value of 0.4.
- AEROSHELL Oil W 100
- AEROSHELL Oil W 120
- ELF Aviation AD 100
- MOBIL Aero Oil 100
- BP Aero D 100
- CASTROL Aero AD 100
- TOTAL Aero D 100
9. Air Speeds:
- |   |              |
|---|--------------|
| Never exceed speed limit $v_{NE}$<br>category U           | 286 km/h IAS |
| Normal operating speed limit $v_{NO}$<br>category U       | 222 km/h IAS |
| Design manoeuvring speed limit $v_A$<br>category U        | 222 km/h IAS |
| Maximum flaps extended speed limit $v_{FE}$<br>category U | 140 km/h IAS |
| Maximum open landing gear speed $v_{LE}$<br>category U    | 308 km/h IAS |

	Maximum landing gear operating speed $v_{LO}$ category U	140 km/h IAS
	Maximum permissible Snap Maneuver Speed	160 km/h IAS
10. Load factors:	For category Utility (U) For category Normal (N)	+5.5 g, -3.0 g +3.5 g, -1.0 g
11. Maximum Operating Altitude:	4 750 m	
12. Weights:	Max. Take-off and Landing weight:	
	- For category Utility (U)	910 kg
	- For category Normal (N)	975 kg
	Max. Variable Load:	
	- For category Utility (U)	245 kg
	- For category Normal (N)	300 kg
	Standard empty weight with propeller:	
	- For category Utility (U)	665 kg $\pm$ 3 %
	- For category Normal (N)	675 kg $\pm$ 3 %
13. Centre of Gravity Range:	18.0 % – 30.0 % MAC	
14. Datum:	Datum goes through the tubing that supports forward part of airplane body. It is perpendicular to longitudinal axis of the plane.	
15. Mean Aerodynamic Cord (MAC):	1 545 mm (distance between beginning of MAC and datum is 601 mm)	
16. Leveling Means:	It is identical with axis of upper tube of airplane's body frame.	
17. Minimum Flight Crew:	1	
18. Number of seats:	2, (pilot seat inclusive).	
19. Baggage/Cargo Compartments:	-	
20. Control surface deflections:	Elevator deflection	up $25^\circ \pm 1^\circ$ down $20^\circ \pm 1^\circ$
	Elevator trim tab	up $25^\circ \pm 2^\circ$ down $40^\circ \pm 2^\circ$
	Rudder deflection	right and left $28^\circ \pm 2^\circ$
	Rudder trim tab	left $5^\circ \pm 1^\circ$ right $30^\circ \pm 2^\circ$
	Ailerons deflection	up $19^\circ \pm 1^\circ$ (108 + 5/- 3 mm) down $17^\circ \pm 1^\circ$ (98 + 5/- 3 mm)
	Wing flaps positions	retracted $0^\circ$ take-off $15^\circ$ landing $40^\circ + 5^\circ/- 3^\circ$

21. Wheels and Tyres:

Wheels of main gear landing

K 12-0100.00 with tyre Barum 420 x 150 model 2  
or with tyre Mitas 420 x 150 model 2.

Tail wheel

K 13-0000.00 with tyre Barum 260 x 85  
or with tyre Mitas 260 x 85.

22. Other Limitations:

The aircraft is approved for Day VFR flights.



#### IV. Operating and Service Instructions

1. Flight manual
  - In Czech language  
Letová příručka letounu Z – 326, date of issue 1964  
Dodatek č.1 k Letové příručce Z – 326 pro letoun Z 326 M, datum vydání 1976
  - In English language  
Instruction for Pilot on the use and Handling of the Z – 326 aircraft
2. Maintenance manual
  - In English language  
Description of aircraft Z – 326 and direction for its operation
3. Overhaul manual
  - In Czech language  
Příručka pro generální opravu letounu Z – 326, date of issue 1961
  - In English language  
Instruction Manual for Major Overhaul of Z – 326 Aircraft
4. List of spare parts
  - In Czech, German, English and Russian language  
Seznam náhradních součástí Z – 326  
Katalog der Ersatzteile Z – 326  
Catalogue of Spare Parts Z – 326

#### V. Notes

1. EASA TC No. EASA.A.353 was issued for model Z 326 M aircraft on 28.3.2007.

## Model Z 526 M

### I. General

8. Data Sheet No.: 2417/59
9. Model: Z 526 M
10. Airworthiness category: Normal (N)  
Utility (U)
11. Type Certificate Holder: MORAVAN – AEROPLANES, a.s.  
Letiště 1578, 765 81 Otrokovice.
12. Manufacturer: Moravan, n.p.  
Letiště 1578, 765 81 Otrokovice.
13. Application Date: -
14. Certificate Date: 05.02.1976

### II. Certification Basis

1. Certification Basis: – Bauvorschriften für Flugzeuge, K5  
– British Civil Airworthiness Requirements, cat D,  
AIR 2052
2. Special Conditions: None.
3. Exemptions: § D2-9.2.1 Longitudinal trim
4. Equivalent Safety Findings: § D2-9.2.1 – Longitudinal trim is applicable from the speed 135 km/h (IAS) instead of 85 km/h (IAS). The forces affecting controls upon this configuration are inconsiderable, so there is no influence on airplane handling by the excursion mentioned above
5. Environmental Standards: None.

### III. Technical Characteristics and Operational Limitations

1. Type Design Definition: The specification card of Aircraft Z – 526 has name “Conversion from Z 526 to Z 526 M aircraft” and the drawing number is “M 526.000”.
2. Description: The Z 526 M aircraft is two-seat, low wing, single-engine, and monoplane.
3. Equipment: Approved equipment list is stated in “Technical Description, Operation Instructions for Z – 526 and Z – 526 A Aircrafts, chapter IX”; and:

Temperature Transmitter	LUN 1397.1-8
Cylinder Heat Temperature Gauge	LUN 1380.1-8
4. Dimensions:

Span:	10.596 m (10.845 m with external fuel tanks)
Length:	8.000 m
Height:	2.060 m
Wing Area:	15.451 m <sup>2</sup>
5. Engine:
  - 5.1. Model: M 137 A
  - 5.2. Type Certificate: 69-01, issued by Czech CAA
  - 5.3. Limitations:

Max. Take-off power	
Max. Power	132 kW, (180 k)
Max. Engine speed	2 750 RPM
Max. Consumption	59 l/h
Max. Manifold pressure	103 kPa
Max. Continuous power	
Max. Power	118 kW, (160 k)
Max. Engine speed	2 680 RPM
Max. Consumption	52 l/h
Max. Manifold pressure	98 kPa
Max. Cruising power	
Max. Power	103 kW, (140 k)
Max. Engine speed	2 580 RPM
Max. Consumption	44 l/h
Max. Manifold pressure	90 kPa
6. Propeller:
  - 6.1.1. Model: V 503
  - 6.1.2. Type Certificate: 64 002, issued by Czech CAA
  - 6.1.3. Number of blades: 2
  - 6.1.4. Diameter: 1 950 mm
  - 6.1.5. Sense of Rotation: Left, in flight direction.

or

- 6.2.1. Model: V 503 A
- 6.2.2. Type Certificate: 69-02, issued by Czech CAA
- 6.2.3. Number of blades: 2
- 6.2.4. Diametr: 2 000 mm
- 6.2.5. Sense of Rotation: Left, in flight direction.
7. Fuel: Not-ethylated aviation gasoline, with min. 72 octanes. Application of ethylated fuels is only permitted in case the T.E.L. content does not exceed the value of 0.06% vol.
- LBZ 72 LBZ 72
- LBZ 78
- SHELL 80
- ESSO 80 (TEO max. 0.06 % objemu)
- Grade 100/130 (TEO max. 0.06% objemu)
- AVGAS 100 LL  
(DEFENCE STANDARD 91/90ASTM D910).
- AVGAS 100 L
- AVGAS 80
8. Oil: For engine operation are recommended mineral oils with min. kinematic viscosity of 20 cSt at 100°C, whose percentual carbon residue does not exceed the value of 0.4.
- AEROSHELL Oil W 100
- AEROSHELL Oil W 120
- ELF Aviation AD 100
- MOBIL Aero Oil 100
- BP Aero D 100
- CASTROL Aero AD 100
- TOTAL Aero D 100
9. Air Speeds:
- |   |              |
|---|--------------|
| Never exceed speed limit $v_{NE}$<br>category U           | 292 km/h IAS |
| Normal operating speed limit $v_{NO}$<br>category U       | 233 km/h IAS |
| Design manoeuvring speed limit $v_A$<br>category U        | 225 km/h IAS |
| Maximum flaps extended speed limit $v_{FE}$<br>category U | 140 km/h IAS |
| Maximum open landing gear speed $v_{LE}$<br>category U    | 292 km/h IAS |

	Maximum landing gear operating speed $v_{LO}$ category U	140 km/h IAS
	Maximum permissible Snap Maneuver Speed	160 km/h IAS
10. Load factors:	For category Utility (U) For category Normal (N)	+5.5 g, -3.0 g +3.5 g, -1.0 g
11. Maximum Operating Altitude:	5 000 m	
12. Weights:	Max. Take-off and Landing weight:	
	- For category Utility (U)	940 kg
	- For category Normal (N)	975 kg
	Max. Variable Load:	
	- For category Utility (U)	275 kg
	- For category Normal (N)	300 kg
	Standard empty weight with propeller:	
	- For category Utility (U)	665 kg $\pm$ 3 %
	- For category Normal (N)	675 kg $\pm$ 3 %
13. Centre of Gravity Range:	17.0 % – 27.4 % MAC	
14. Datum:	Level of braces of the first body bulkhead, in horizontal position of aircraft.	
15. Mean Aerodynamic Cord (MAC):	1 545 mm (distance between beginning of MAC and datum is 601 mm)	
16. Leveling Means:	It is 850 mm under basic level defined by levelling points 3 and 4.	
17. Minimum Flight Crew:	1	
18. Number of seats:	2, (pilot's seat inclusive).	
19. Baggage/Cargo Compartments:	Maximum 17 kg in Normal category.	
20. Control surface deflections:	Elevator deflection	up $25^\circ \pm 1^\circ$ down $20^\circ \pm 1^\circ$
	Elevator trim tab	up $25^\circ \pm 2^\circ$ down $40^\circ \pm 2^\circ$
	Rudder deflection	right and left $28^\circ \pm 2^\circ$
	Rudder trim tab	left $5^\circ \pm 1^\circ$ right $30^\circ \pm 2^\circ$
	Ailerons deflection	up $108 + 5/- 3$ mm down $98 + 5/- 3$ mm
	Wing flaps positions	retracted $0^\circ$ take-off $15^\circ$ landing $40^\circ + 5^\circ/- 3^\circ$
21. Wheels and Tyres:	Wheels of main gear landing	

K 12 0100 00 with type Datum 420 x 150 model 2

K 12-0100.00 with tyre Barum 420 x 150 model 2  
or with tyre Mitas 420 x 150 model 2.

Tail wheel

K 13-0000.00 with tyre Barum 260 x 85  
or with tyre Mitas 260 x 85.

22. Other Limitations:

The aircraft is approved for Day VFR flights.

#### IV. Operating and Service Instructions

1. Flight manual
  - In Czech language  
Letová příručka školního a akrobatického letounu Z – 526  
Dodatek č.1 k Letové příručce Z – 526 pro letoun Z 526 M, datum vydání 1978
  - In English language  
Instruction for Pilot on the Use and Handling of the Training and Acrobatic Z – 526 and Z – 526 A Aircraft
2. Maintenance manual
  - In Czech language  
Technický popis a návod k obsluze letounu Z – 526 a Z – 526 A
  - In English language  
Technical Description, Operation Instructions for Z – 526 and Z – 526 A Aircrafts
3. Overhaul Manual
  - In English language  
Major Overhaul of Z – 526, Z – 526 A Aircraft
4. List of spare parts
  - In Czech, German, English, Spanish and Russian language  
Seznam náhradních součástí Z – 526  
Katalog der Ersatzteile Z – 526  
Catalogue of Spare Parts Z – 526  
List de piezas de repuesto Z – 526

#### V. Notes

1. EASA TC No. EASA.A.353 was issued for model Z 526 M aircraft on 28.3.2007.