Type Certificate Holder:

AGROAIR, spol.s.r.o.
Štěpánkova 86,
537 01 Chrudim
CZECH REPUBLIC

Manufacturer:

LET, n.p.
686 04 Kunovice 1177
CZECH REPUBLIC

Type: Z – 37, and
Variants: Z - 37 - 2
Z - 37A
Z - 37A - 2

Issue 02: 22-May-2024

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| Issue| 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  | 2  | 2  | 1  |
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   II. Certification Basis
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SECTION D2: Reserved

CHANGE RECORD
SECTION A1: GENERAL, Z - 37 Type Design

A.I. General

1. a) Type: Z – 37
   b) Variant: ---

2. Airworthiness Category: Restricted Category (see Note 1)

3. Type Certificate Holder: AGROAIR, spol. s.r.o..
   Štěpánkova 86
   537 01 Chrudim
   CZECH REPUBLIC
   (see Note 4)

4. Manufacturer: From S/N 00-01 to S/N 27-19
   LET, n.p.
   686 04 Kunovice 1177
   CZECH REPUBLIC

5. Certification Application Date: --

6. The CAA CZ Certificate Date: 25.07.1966

7. EASA Type Certificate Date: 22-May-2024 (Transfer of Certificate)
   27-Mar-2007 (reissue, EASA)

EASA Type Certificate replaces Czech Type Certificate No. 66-05

A.II. Certification Basis

1. Reference Date for determining the applicable requirements: --

2. Certification Basis: --

3. Airworthiness Requirements: British Civil Airworthiness Requirements BCAR, Section D, valid to 01.12.1963

4. Requirements elected to comply: None

5. EASA Special Conditions: None

6. EASA Exemptions:

   D2-7 5.1 The side component of the wind at which the directional controllability at taxiing complies with regulation is not determined.

   D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN

   D2-9 2.1.3 Non-compliance with requirement for control force balancing at aft position of center of gravity, maximum continuous power of the engine and maximum take-off weight at 0.9 VNO
D2-9 2.1.6 Non-compliance with requirement for control force balancing at forward position of center of gravity at descent flight with engine idle in the speed range from 1.2 to 1.4 \( v_{\text{so}} \).

D5-5 3.3 Supplement - not installed emergency heating of suction air for carburetor

D5-8 7 Fuel and oil piping in the engine space is not fire-resistant

D5-8 2.1. Oil tank, its installation and attachment is not fireproof

D6-1 4.2.1 e) Not installed flight indicator of oil quantity that is required with regard to the engine oil usage for the setting of propeller blades

D6-7 8.1 Non-compliant color of position lights

D6-7 5.2 Non-compliant intensity of position lights

D6-7 5.3 Non-compliant intensity of position lights

7. EASA Equivalent Safety Findings: None

8. EASA Environmental Standards: None

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Specification Sheet, drawing No. Z37.0000-00/1

2. Description: Z-37 aircraft is single-engine, low-wing aircraft of compound design with usage of metal and fabric materials.

3. Equipment:

Flight and navigation instruments:
- Magnetic compass LUN 1221
- Altimeter LUN 1121
- Airspeed indicator with over-pulling indication LUN 1107
- Vertical speed indicator LUN 1147
- Turn indicator LUN 1213
- Stall warning indication light CHS – 39

Engine instruments:
- RPM indicator LUN 1341
- Blower pressure gauge LUN 1401
- Quadruplicate indicator of engine parameters LUN 1527
- Thermometer of cylinder heads LUN 1380
- Volt-ammeter LUN 2715
- Warning light of engine fire SLC - 51
- Inlet air temperature indicator TUE – 48
Airframe and systems instruments:
- Pneumatic system pressure gauge: MA-100
- Earlier: MV-80-100
- Chemical pressure gauge: AP-6
- Chemical weight indicator: AP-6
- Dual fuel quantity indicator: LUN 1626
- Warning remaining fuel light: SLC - 51

4. Dimensions:
- Wing Span: 12.224 m
- Length: 8.550 m
- Height: 2.898 m
- Wing Area: 23.8 sq.m

5. Engine:
5.1 Model: M 462 R F
5.2 Type Certificate: EASA approved (CAA CZ TC No. 66-04) (see Note 2)
5.3 Limitations:
- Maximum take-off power:
  - Power: 315 HP
  - Speed: 2450 RPM
- Maximum continuous (nominal) power:
  - Power: 280 HP
  - Speed: 2200 RPM
- Maximum cruise power:
  - Power: 195 HP
  - Speed: 1900-1950 RPM

6. Propeller:
6.1 Model: V 520 /7/
6.2 Type Certificate: EASA approved (CAA CZ TC No. 66-01) (see Note 3)
6.3 Number of blades: 2
6.4 Sense of Rotation: Anticlockwise in the view of the flight direction
6.5 Diameter: 2700 mm

7. Fluids
7.1 Fuel: Jet fuel ESSO ICP 80
- SHELL Avgas 80
- SHELL Avgas 100 LL
- BP 100 L
- BL 78 according to ČSN 65 6510

7.2 Oil: AEROSHELL Oil W 100, 120
- ELF Aviation AD 100
- MOBIL Aero D 100
- BP Aero Oil 100
- CASTROL Aero AD 100
- TOTAL Aero D 100
7.3 Coolant

None

8. Fluid capacities

8.1. Fuel:

Total:
- Main Fuel Tank 127 liters
- Auxiliary Fuel Tank 127 liters

Usable:
- Main Fuel Tank 126.5 liters
- Auxiliary Fuel Tank 126.5 liters

8.2. Oil:

17.3 liters

9. Air Speeds:

- Never exceeding speed $v_{na}$ 270 km/h IAS
- Maximum speed for normal maneuvers $v_{ma}$ 175 km/h IAS
- Design manoeuvring speed $v_{s}$ 170 km/h IAS
- Maximum flaps extended speed $v_{m}$ 150 km/h IAS

10. Maximum Operating Altitude:

- Without agricultural equipment 4000 m
- With agricultural equipment 3670 m

11. All-Weather Operation Capability

VFR-Day operations

12. Maximum Weights:

- Maximum take-off weight for aerial works 1850 kg
- Cargo 1725 kg

13. Center of Gravity Range:

23 - 31 % MAC

14. Datum:

Fuselage System frame No. 1 (firewall)

15. Mean Aerodynamic Cord (MAC):

2.0 m

16. Leveling Means:

Identical with the basic fuselage level – see the Aircraft Maintenance Manual

17. Minimum Flight Crew:

1

18. Number of seats:

2 including the pilot seat, category for aerial works only

19. Baggage/Cargo Compartments:

- for aerial works, (in chemical tank, 650 l volume) 600 kg
- for cargo 490 kg

20. Wheels and Tyres:

- Main landing gear wheel K 560.3-00-7 with tyre 556 x 163 mm Model 2
- Rear landing gear wheel K 290-00-7 with tyre 290 x 110 mm Ant shimmy
21. Control surface deflections:

Ailerons

<table>
<thead>
<tr>
<th>Direction</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up</td>
<td>+26° ±1°</td>
</tr>
<tr>
<td>Down</td>
<td>-18.5° ±1°</td>
</tr>
</tbody>
</table>

Elevator

<table>
<thead>
<tr>
<th>Direction</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up</td>
<td>+35° -0° +2°</td>
</tr>
<tr>
<td>Down</td>
<td>-20° -0+2°</td>
</tr>
</tbody>
</table>

Rudder

<table>
<thead>
<tr>
<th></th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±26° + 2°–1°</td>
</tr>
</tbody>
</table>

Inner flaps

<table>
<thead>
<tr>
<th>State</th>
<th>Deflection</th>
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</thead>
<tbody>
<tr>
<td>Retracted</td>
<td>8.5°</td>
</tr>
<tr>
<td>Take-off</td>
<td>18.5°</td>
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<tr>
<td>Landing</td>
<td>53.5°</td>
</tr>
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</table>

Outer flaps

<table>
<thead>
<tr>
<th>State</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retracted</td>
<td>5°</td>
</tr>
<tr>
<td>Take-off</td>
<td>15°</td>
</tr>
<tr>
<td>Landing</td>
<td>50°</td>
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22. Load factors:

Aerial works

<table>
<thead>
<tr>
<th></th>
<th>Load Factor</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>+ 3.5 g</td>
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<tr>
<td></td>
<td>- 1.4 g</td>
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</tbody>
</table>

Cargo

<table>
<thead>
<tr>
<th></th>
<th>Load Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ 3.8 g</td>
</tr>
<tr>
<td></td>
<td>- 1.52 g</td>
</tr>
</tbody>
</table>
A.IV. Operating and Service Instructions

1. Flight manual:
   - In Czech language: Letová příručka pro letoun Z – 37
     Do-Z37-1010.0

2. Maintenance manual:
   - In Czech language: Technický popis letounu Z – 37
     Do-Z37-1023.0
   - In Czech language: Příručka pro obsluhu a údržbu letounu Z – 37
     Do-Z37-1031.0
   - In Czech language: Technický popis a návod k obsluze násypného zařízení LN 2-00
     Do-Z37-1042.0
   - In Czech language: Popis a návod k obsluze nádrže mechanického náhonu
     Do-Z37-1045.0
   - In Czech language: Popis a návod k obsluze rozmetacího a poprašovacího zařízení
     Do-Z37-1040.0
   - In Czech language: Popis a návod k obsluze postříkovacího zařízení, vodní trysky, olejové trysky
     Do-Z37-1041.0

3. Operational manuals for engine and propeller:
   - In Czech language: Příručka: Letecký motor M 462 RF - technický popis a návod k obsluze
   - In Czech language: Technický popis a provozní instrukce vrtule V 520
A.V. Notes

Note 1: No general restrictions applicable. Any restrictions necessary for a single airplane to be listed in the Certificate of Airworthiness of the affected airplane.

Note 2: The EASA type certification standard includes that of CAA Cz TC No. 66-04 based on individual EU member state acceptance or certification of this standard prior to 28 September 2003. Other standards confirming to TC/TCDS standards certificated by individual EU member state prior to 28 September 2003 are also acceptable.

Note 3: The EASA type certification standard includes that of CAA Cz TC No. 66-01 based on individual EU member state acceptance or certification of this standard prior to 28 September 2003. Other standards confirming to TC/TCDS standards certificated by individual EU member state prior to 28 September 2003 are also acceptable.

Note 4: Transfer of the TCDS EASA.A.445 from Aircraft Industries, a.s. (former name: LET, n.p.) to Agroair, spol.s.r.o.

SECTION A2: Reserved
SECTION B1: GENERAL, Z - 37 - 2 Type Design

B.I. General

1. a) Type: Z – 37  
   b) Variant: Z - 37 – 2

2. Airworthiness Category: Restricted (see Note 1)

3. Type Certificate Holder: AGROAIR, spol. s.r.o.  
   Stěpánkova 86  
   537 01 Chrudim  
   CZECH REPUBLIC  
   (see Note 4)

4. Manufacturer: From S/N 00-10  
   LET, n.p.  
   686 04 Kunovice 1177  
   CZECH REPUBLIC

5. Certification Application Date: --

6. The CAA CZ Certificate Date: 07.05.1967

7. EASA Type Certificate Date 22-May-2024 (Transfer of Certificate)  
   27-Mar-2007 (reissue, EASA)

EASA Type Certificate replaces Czech Type Certificate No. 66-05

B.II. Certification Basis

1. Reference Date for determining the applicable requirements --

2. Certification Basis --

3. Airworthiness Requirements: British Civil Airworthiness Requirements BCAR, Section D,  
   valid to date 01.12.1963

4. Requirements elected to comply: None

5. EASA Special Conditions: None

6. EASA Exemptions:  
   D2-7 5.1 The side component of the wind at which the directional controllability at taxiing complies with regulation is not determined.
   D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN
   D2-9 2.1.3 Non-compliance with requirement for control force balancing at aft position of center of gravity, maximum continuous power of the engine and maximum take-off weight at 0.9 v_NO

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Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.
D2-9  2.1.6  Non-compliance with requirement for control force balancing at forward position of center of gravity at descent flight with engine idle in the speed range from 1.2 to 1.4 $v_{mo}$. 

D5-5  3.3  Supplement - not installed emergency heating of suction air for carburetor

D5-8  7  Fuel and oil piping in the engine space is not fire-resistant

D5-8  2.1.2  Oil tank, its installation and attachment is not fireproof

D6-1  4.2.1  e) Not installed flight indicator of oil quantity that is required with regard to the engine oil usage for the setting of propeller blades

D6-7  8.1  Non-compliant color of position lights

D6-7  5.2  Non-compliant intensity of position lights

D6-7  5.3  Non-compliant intensity of position lights

7. EASA Equivalent Safety Findings: None

8. EASA Environmental Standards: None

B. III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Specification Sheet, drawing No. Z37.0000-00/1

2. Description: Z-37 aircraft is two-seat, single-engine, low-wing aircraft of compound design using metal and fabric materials and with dual control system.

3. Equipment: Standard equipment of the forward cockpit:

   - Flight and navigation instruments:
     - Magnetic compass: LUN 1221
     - Altimeter: LUN 1121
     - Airspeed indicator with over-pulling indication: LUN 1107
     - Vertical speed indicator: LUN 1147
     - Turn indicator: LUN 1213
     - Stall warning indication light: CHS – 39

   - Engine instruments:
     - RPM indicator: LUN 1312
     - Blower pressure gauge: LUN 1401
     - Quadruplicate indicator of engine parameters: LUN 1527
Cylinder heads thermometer LUN 1380
Volt-ammeter LUN 2715 from 3-rd series
or VA 240 to 2-nd series
Warning light of engine fire SLC - 51
Inlet air temperature indicator TUE - 48
Dynamo warning light SLC – 51

Airframe and systems instruments:
Pneumatic system thermometer MV-80
Fuel indicator LUN 1626
Remaining fuel warning light SLC – 51

Standard equipment of the rear cockpit:
Flight and navigation instruments:
Altimeter LUN 1121
Airspeed indicator LUN 1106
Vertical speed indicator LUN 1147
Turn indicator LUN 1213

Engine instruments:
RPM indicator LUN 1312
Blower pressure gauge LUN 1401
Quadruple indicator of engine parameters
Warning light of engine fire SLC - 51
Inlet air temperature indicator TUE - 48
Dynamo warning light SLC - 51
Push-button for over-switching of indicators A 09-9430-64

Airframe and systems instruments:
Fuel cock position warning light SLC - 51
Mechanical indicator of the elevator trim tab position Z37.4411-00
Mechanical indicator of the oil cooler flap position Z237.8230-00
Mechanical indicator of the sun-blind position Z237.7360-00

4. Dimensions:
Wing Span: 12.224 m
Length: 8.550 m
Height: 2.898 m
Wing Area 23.8 sq.m

5. Engine:

5.1 Model: M 462 R F

5.2 Type Certificate: EASA approved (CAA CZ TC No. 66-04) (see Note 2)

5.3 Limitations:
Maximum take-off power
Power 315 HP
Speed 2450 RPM

Maximum continuous power
Power 280 HP
Speed 2200 RPM
6. **Propeller:**

   6.1 **Model:** V 520 /7/

   6.2 **Type Certificate:** EASA approved (CAA Cz TC No. 66-01) (see Note 3)

   6.3 **Number of blades:** 2

   6.4 **Sense of Rotation:** Anticlockwise in the view of the flight direction

   6.5 **Diameter:** 2700 mm

7. **Fluids**

   7.1 **Fuel:** Jet fuel ESSO ICP 80
   SHELL Avgas 80
   SHELL Avgas 100 LL
   BP 100 L
   BL 78 according to ČSN 65 6510

   7.2 **Oil:** AEROSHELL Oil W 100, 120
   ELF Aviation AD 100
   MOBIL Aero D 100
   BP Aero Oil 100
   CASTROL Aero AD 100
   TOTAL Aero D 100

8. **Fluid capacities**

   8.1 **Fuel:**
   Total: Main Fuel Tank 127 liters
   Auxiliary Fuel Tank 127 liters
   Usable: Main Fuel Tank 126.5 liters
   Auxiliary Fuel Tank 126.5 liters

   8.2 **Oil:** 17.3 litres

9. **Air Speeds:**

   Never exceeding speed \( v_{\text{NE}} \) 270 km/h IAS

   Maximum speed for normal manoeuvres \( v_{\text{mo}} \) 175 km/h IAS

   Design manoeuvring speed \( v_{\alpha} \) 170 km/h IAS

   Maximum flaps extended speed \( v_{\alpha} \) 150 km/h IAS

10. **Maximum Operating Altitude:** 3785 m
    (only without agricultural equipment)

11. **All-weather Operational Capability** VFR-Day operations

12. **Maximum Weights:** Maximum take-off weight 1600 kg
13. Center of Gravity Range: 23 - 31 % MAC
14. Datum: Fuselage System frame No. 1 (firewall)
15. Mean Aerodynamic Chord (MAC): 2.0 m
16. Levelling Means: Identical with the basic fuselage level – see the Aircraft Maintenance Manual
17. Minimum Flight Crew: 1
18. Number of seats: 2 including the pilot seat
19. Baggage/Cargo Compartments: 38 kg
20. Wheels and Tyres: Main landing gear wheel K 560.3-00-7 with tyre 556 x 163 mm Model 2
Rear landing gear wheel K 290-00-7 with tyre 290 x 110 mm Ant shimmy
21. Control surface deflections: Ailerons
   up +26° ±1°
   down −18.5° ±1°
Elevator
   up +35° –0° +2°
   down −20° – 0 ±2°
Rudder +26° + 2°–1°
Inner flaps
   retracted 8.5°
   take-off 18.5°
   landing 53.5°
Outer flaps
   retracted 5°
   take-off 15°
   landing 50°
22. Load factors: Limit load factor + 3.8 g - 1.4 g
B.IV. Operating and Service Instructions

1. Flight manual:
   - In Czech language: Letová příručka pro letoun Z – 37
     Do-Z37-1010.0
   - In Czech language: Doplněk k letové příručce pro letoun Z - 37 – 2
     Do-Z37-3022.0

2. Maintenance manual:
   - In Czech language: Technický popis letounu Z – 37
     Do-Z37-1023.0
   - In Czech language: Doplněk k technickému popisu pro letoun Z-37-2
     Do-Z37-3022.0
   - In Czech language: Příručka pro obsluhu a údržbu letounu Z – 37
     Do-Z37-1031.0
   - In Czech language: Doplněk k příručce pro obsluhu a údržbu letounu Z - 37 – 2
     Do-Z37-3022.0
   - In Czech language: Palubní a elektrické přístroje použité na letounu Z – 37
     Do-Z37-3311.0

3. Operational manuals for engine and propeller:
   - In Czech language: Příručka: Letecký motor M 462 RF - technický popis a návod k obsluze
   - In Czech language: Technický popis a provozní instrukce vrtule V 520
B.V. Notes

Note 1: No general restrictions applicable. Any restrictions necessary for a single airplane to be listed in the Certificate of Airworthiness of the affected airplane

Note 2: The EASA type certification standard includes that of CAA Cz TC No. 66-04 based on individual EU member state acceptance or certification of this standard prior to 28 September 2003. Other standards confirming to TC/TCDS standards certificated by individual EU member state prior to 28 September 2003 are also acceptable.

Note 3: The EASA type certification standard includes that of CAA Cz TC No. 66-01 based on individual EU member state acceptance or certification of this standard prior to 28 September 2003. Other standards confirming to TC/TCDS standards certificated by individual EU member state prior to 28 September 2003 are also acceptable.

Note 4: Transfer of the TCDS EASA.A.445 from Aircraft Industries, a.s. (former name: LET, n.p.) to Agroair, spol.s.r.o.

SECTION B2: Reserved
SECTION C1: GENERAL, Z - 37A Type Design

1. a) Type: Z – 37
   b) Variant: Z - 37A

2. Airworthiness Category: Restricted Category (see Note 1)

3. Type Certificate Holder: AGROAIR, spol. s.r.o.
   Štěpánkova 86
   537 01 Chrudim
   CZECH REPUBLIC
   (see Note 4)

4. Manufacturer: From S/N 01-05 to S/N 25-38
   LET, n.p.
   686 04 Kunovice 1177
   CZECH REPUBLIC

5. Certification Application Date: --

6. The CAA CZ Certificate Date: 03.01.1971

7. EASA Type Certificate Date
   22-May-2024 (Transfer of Certificate)
   27-Mar-2007 (reissue EASA)

EASA Type Certificate replaces Czech Type Certificate No. 66-05

C.II. Certification Basis

1. Reference Date for determining the applicable requirements --

2. Certification Basis --

3. Airworthiness Requirements: British Civil Airworthiness Requirements BCAR, Section D, valid to date 01.12.1963

4. Requirements elected to comply: None

5. EASA Special Conditions: None

6. EASA Exemptions:
   D2-7 5.1 The side component of the wind at which the directional controllability at taxiing complies with regulation is not determined.
   
   D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN
   
   D2-9 2.1.3 Non-compliance with requirement for control force balancing at aft position of center of gravity, maximum continuous power of the engine and maximum take-off weight at 0.9 v_no
D2-9 2.1.6 Non-compliance with requirement for control force balancing at forward position of center of gravity at decent flight with engine idle in the speed range from 1.2 to 1.4 \( \text{v}_{\text{so}} \).

D5-5 3.3 Supplement - not installed emergency heating of suction air for carburetor.

D5-8 7 Fuel and oil piping in the engine space is not fire-resistant.

D5-8 2.1.2 Oil tank, its installation and attachment is not fireproof.

D6-1 4.2.1 e) Not installed flight indicator of oil quantity that is required with regard to the engine oil usage for the setting of propeller blades.

D6-7 8.1 Non-compliant color of position lights.

D6-7 5.2 Non-compliant intensity of position lights.

D6-7 5.3 Non-compliant intensity of position lights.

7. EASA Equivalent Safety Findings: None

8. EASA Environmental Standards: None

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Specification Sheet, drawing No. Z37.0000-00/1

2. Description: Z - 37 aircraft is single-engine, low-wing aircraft of compound design with usage of metal and fabric materials.

3. Equipment: Aircraft up to S/N 01-05

   Flight and navigation instruments:
   - Magnetic compass LUN 1221-8
   - Altimeter LUN 1121.02-8
   - Airspeed indicator with over-pulling indication LUN 1107-8
   - Vertical speed indicator LUN 1147.10-8
   - Turn indicator LUN 1213-8
   - Stall warning indication light CHS – 39

   Engine instruments:
   - RPM indicator LUN 1341-48
   - Blower pressure gauge LUN 1401-8
   - Quadruplicate indicator of engine parameters LUN 1527-8
   - Heads temperature thermometer LUN 1380-8
   - Volt-ammeter LUN 2715-8
   - Warning light of engine fire SLC - 51
   - Inlet air temperature indicator TUE – 48
4. Dimensions:
   - Wing Span: 12.224 m
   - Length: 8.550 m
   - Height: 2.898 m
   - Wing Area: 23.8 sq.m

5. Engine
   5.1 Model: M 462 R F
   5.2 Type Certificate: EASA approved (CAA Cz TC No. 66-04) (see Note 2)
   5.3 Limitations:
      - Maximum take-off power:
        - Power: 315 HP
        - Speed: 2450 RPM
      - Maximum continuous power:
        - Power: 280 HP
        - Speed: 2200 RPM
      - Maximum cruise power:
        - Power: 195 HP
        - Speed: 1900-1950 RPM

6. Propeller:
   6.1 Model: V 520 /7/
   6.2 Type Certificate: EASA approved (CAA Cz TC No. 66-01) (see Note 3)
   6.3 Number of blades: 2
   6.4 Sense of Rotation: Anticlockwise in the view of the flight direction
   6.5 Diameter: 2700 mm

7. Fluids:
   7.1 Fuel:
      - Jet fuel ESSO ICP 80
      - SHELL Avgas 80
      - SHELL Avgas 100 LL
      - BP 100 L
      - BL 78 according to ČSN 65 6510
   7.2 Oil:
      - AEROSHELL Oil W 100, 120
      - ELF Aviation AD 100
      - MOBIL Aero D 100
      - BP Aero Oil 100
      - CASTROL Aero AD 100
      - TOTAL Aero D 100

Airframe and systems instruments:
- Pneumatic system thermometer: MA-100
- Chemical pressure gauge: AP-6
- Chemical weight indicator: LUN-1472-8
- Fuelmeter: LUN 1626-8
- Warning light of remaining fuel: SLC – 51
8. Fluid capacities:

8.1. Fuel:

<table>
<thead>
<tr>
<th></th>
<th>Total:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main Fuel Tank</td>
<td>127 liters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auxiliary Fuel Tank</td>
<td>127 liters</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Usable:</th>
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<tbody>
<tr>
<td></td>
<td>Main Fuel Tank</td>
<td>126.5 liters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auxiliary Fuel Tank</td>
<td>126.5 liters</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Oil:

|        | 17.3 litres |

9. Air Speeds:

<table>
<thead>
<tr>
<th></th>
<th>$v_{\text{ms}}$</th>
<th>270 km/hr IAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed for normal maneuvers</td>
<td>$v_{\text{mo}}$</td>
<td>175 km/hr IAS</td>
</tr>
<tr>
<td>Design manoeuvring speed</td>
<td>$v_{\text{a}}$</td>
<td>170 km/hr IAS</td>
</tr>
<tr>
<td>Maximum flaps extended speed</td>
<td>$v_{\text{m}}$</td>
<td>150 km/hr IAS</td>
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</table>

10. Maximum Operating Altitude:

<table>
<thead>
<tr>
<th></th>
<th>Without agricultural equipment</th>
<th>4000 m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With agricultural equipment</td>
<td>3670 m</td>
</tr>
</tbody>
</table>

11. All-weather Operational Capability

|                          | VFR-Day operations |

12. Maximum Weights:

|                          | Maximum take-off weight |
|                          | - for aerial works | 1850 kg |
|                          | - cargo           | 1725 kg |

13. Center of Gravity Range:

|                          | 23 - 31 % MAC |

14. Datum:

|                          | Fuselage System frame No. 1 (firewall) |

15. Mean Aerodynamic Chord (MAC):

|                          | 2.0 m |

16. Leveling Means:

|                          | Identical with the basic fuselage level – see the Aircraft Maintenance Manual |

17. Minimum Flight Crew:

|                          | 1 |

18. Number of seats:

|                          | 2 including the pilot seat, category for aerial works only |

19. Baggage/Cargo Compartments:

|                          | for aerial works, (in chemical tank, 650 l volume) | 600 kg |
|                          | for cargo                                           | 490 kg |

20. Wheels and Tyres:

|                          | Main landing gear wheel K 560.3-00-7 |
|                          | with tyre 556 x 163 mm Model 2 |
|                          | Rear landing gear wheel K 290-00-7 |
|                          | with tyre 290 x 110 mm Ant shimmy |
21. Control surface deflections:

<table>
<thead>
<tr>
<th>Surface</th>
<th>Position</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ailerons</td>
<td>up</td>
<td>+26° ±1°</td>
</tr>
<tr>
<td></td>
<td>down</td>
<td>-18.5° ±1°</td>
</tr>
<tr>
<td>Elevator</td>
<td>up</td>
<td>+35° -0° +2°</td>
</tr>
<tr>
<td></td>
<td>down</td>
<td>-20° -0 +2°</td>
</tr>
<tr>
<td>Rudder</td>
<td></td>
<td>±26° + 2° -1°</td>
</tr>
<tr>
<td>Inner flaps</td>
<td>retracted</td>
<td>8.5°</td>
</tr>
<tr>
<td></td>
<td>take-off</td>
<td>18.5°</td>
</tr>
<tr>
<td></td>
<td>landing</td>
<td>53.5°</td>
</tr>
<tr>
<td>Outer flaps</td>
<td>retracted</td>
<td>5°</td>
</tr>
<tr>
<td></td>
<td>take-off</td>
<td>15°</td>
</tr>
<tr>
<td></td>
<td>landing</td>
<td>50°</td>
</tr>
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</table>

22. Load factors:

<table>
<thead>
<tr>
<th>Category</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>For aerial works</td>
<td>+3.5 g - 1.4 g</td>
</tr>
<tr>
<td>Cargo</td>
<td>+3.8 g - 1.52</td>
</tr>
</tbody>
</table>
C.IV. Operating and Service Instructions

1. Flight manual:
   - In Czech language: Letová příručka pro letoun Z - 37A
     Do-Z37-1011.1

2. Maintenance manual:
   - In Czech language: Technický popis letounu Z - 37A
     Do-Z37-1021.1
   - In Czech language: Příručka pro obsluhu a údržbu letounu Z - 37A
     Do-Z37-1031.0
   - In Czech language: Technický popis a návod k obsluze násypného zařízení LN 2-00
     Do-Z37-1042.0
   - In Czech language: Popis a návod k obsluze nádrže mechanického náhonu
     Do-Z37-1045.0
   - In Czech language: Popis a návod k obsluze rozmetacího a poprašovacího zařízení
     Do-Z37-1040.0
   - In Czech language: Popis a návod k obsluze postřikovacího zařízení, vodní trysky, olejové
     trysky
     Do-Z37-1041.0

3. Operational manuals for engine and propeller:
   - In Czech language: Příručka: Letecký motor M 462 RF - technický popis a návod k obsluze
   - In Czech language: Technický popis a provozní instrukce vrtule V 520
C.V. Notes

Note 1: No general restrictions applicable. Any restrictions necessary for a single airplane to be listed in the Certificate of Airworthiness of the affected airplane

Note 2: The EASA type certification standard includes that of CAA Cz TC No. 66-04 based on individual EU member state acceptance or certification of this standard prior to 28 September 2003. Other standards confirming to TC/TCDS standards certificated by individual EU member state prior to 28 September 2003 are also acceptable.

Note 3: The EASA type certification standard includes that of CAA Cz TC No. 66-01 based on individual EU member state acceptance or certification of this standard prior to 28 September 2003. Other standards confirming to TC/TCDS standards certificated by individual EU member state prior to 28 September 2003 are also acceptable.

Note 4: Transfer of the TCDS EASA.A.445 from Aircraft Industries, a.s. (former name: LET, n.p.) to Agroair, spol.s.r.o.

SECTION C2: Reserved
SECTION D1: GENERAL, Z - 37A - 2 Type Design

D.I.  General

1. a) Type: Z – 37
   b) Variant: Z - 37A – 2

2. Airworthiness Category: Restricted (see Note 1)

3. Type Certificate Holder: AGROAIR, spol.s.r.o., Štěpánkova 86
   537 01 Chrudim
   CZECH REPUBLIC
   (see Note 4)

4. Manufacturer: From S/N 05-17
   LET, n.p.
   686 04 Kunovice 1177
   CZECH REPUBLIC

5. Certification Application Date: --

6. The CAA CZ Certificate Date: 03.01.1971

7. EASA Type Certificate Date: 22-May-2024 (Transfer of Certificate)
   27-Mar-2007 (reissue, EASA)

   EASA Type Certificate replaces Czech Type Certificate No. 66-05

D.II. Certification Basis

1. Reference Date for determining the applicable requirements --

2. Certification Basis --

3. Airworthiness Requirements: British Civil Airworthiness Requirements BCAR, Section D, valid to date 01.12.1963

4. Requirements elected to comply: None

5. EASA Special Conditions: None

6. EASA Exemptions:
   D2-7 5.1  The side component of the wind at which the directional controllability at taxiiing complies with regulation is not determined.
   D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN
   D2-9 2.1.3 Non-compliance with requirement for control force balancing at aft position of center of gravity, maximum continuous power of the engine and maximum take-off weight at 0.9 \( v_{NO} \)
D2-9 2.1.6 Non-compliance with requirement for control force balancing at forward position of center of gravity at descent flight with engine idle in the speed range from 1.2 to 1.4 \(v_e\).

D5-5 3.3 Supplement - not installed emergency heating of suction air for carburetor

D5-8 7 Fuel and oil piping in the engine space is not fire-resistant

D5-8 2.1.2 Oil tank, its installation and attachment is not fireproof

D6-1 4.2.1 e) Not installed flight indicator of oil quantity that is required with regard to the engine oil usage for the setting of propeller blades

D6-7 8.1 Non-compliant color of position lights

D6-7 5.2 Non-compliant intensity of position lights

D6-7 5.3 Non-compliant intensity of position lights

7. EASA Equivalent Safety Findings: None

8. EASA Environmental Standards: None

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition:

Specification Sheet, drawing No. Z37.0000-00/1

2. Description:

Z-37 aircraft is two-seat, single-engine, low-wing aircraft of compound design using metal and fabric materials and equipped with dual control.

3. Equipment:

Standard equipment of the forward cockpit:

<table>
<thead>
<tr>
<th>Flight and navigation instruments:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic compass</td>
<td>LUN 1221</td>
</tr>
<tr>
<td>Altimeter</td>
<td>LUN 1121</td>
</tr>
<tr>
<td>Airspeed indicator with over-pulling indication</td>
<td>LUN 1107</td>
</tr>
<tr>
<td>Vertical speed indicator</td>
<td>LUN 1147</td>
</tr>
<tr>
<td>Turn indicator</td>
<td>LUN 1213</td>
</tr>
<tr>
<td>Stall warning indication light</td>
<td>CHS - 39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engine instruments:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RPM indicator</td>
<td>LUN 1312</td>
</tr>
<tr>
<td>Blower pressure gauge</td>
<td>LUN 1401</td>
</tr>
<tr>
<td>Quadruplicate indicator of engine parameters</td>
<td>LUN 1527</td>
</tr>
<tr>
<td>Cylinder heads thermometer</td>
<td>LUN 1380</td>
</tr>
<tr>
<td>Volt-ammeter</td>
<td>LUN 2715 from 3-rd series or VA 240 to 2-nd series</td>
</tr>
</tbody>
</table>

Warning light of engine fire SLC - 51
Inlet air temperature indicator TUE - 48
Dynamo warning light SLC – 51

Airframe and systems instruments:
Pneumatic system thermometer MV-80
Fuel indicator LUN 1626
Remaining fuel warning light SLC – 51

Standard equipment of the rear cockpit:
Flight and navigation instruments:
Altimeter LUN 1121
Airspeed indicator LUN 1106
Vertical speed indicator LUN 1147
Turn indicator LUN 1213

Engine instruments:
RPM indicator LUN 1312
Fan pressure gauge LUN 1401
Quadruple indicator of engine parameters LUN 1527
Warning light of engine fire SLC - 51
Inlet air temperature indicator TUE - 48
Dynamo warning light SLC - 51
Push-button for over-switching of indicators A 09-9430-64

Airframe and systems instruments:
Fuel cock position warning light SLC - 51
Mechanical indicator of the elevator trim tab position Z37.4411-00
Mechanical indicator of the oil cooler flap position Z237.8230-00
Mechanical indicator of the sun-blind position Z237.7360-00

4. Dimensions:
Wing Span: 12.224 m
Length: 8.550 m
Height: 2.898 m
Wing Area 23.8 sq.m

5. Engine

5.1 Model: M 462 R F

5.2 Type Certificate: EASA approved (CAA CZ TC No. 66-04) (see Note 2)

5.3 Limitations:
Maximum take-off power:
Power 315 HP
Speed 2450 RPM

Maximum continuous (nominal) power:
Power 280 HP
Speed 2200 RPM

Maximum cruise power
Power 195 HP
Speed 1900-1950 RPM
6. Propeller:

6.1 Model: V 520 /7/

6.2 Type Certificate: EASA approved (CAA CZ TC No. 66-01) (see Note 3)

6.3 Number of blades: 2

6.4 Sense of Rotation: Anticlockwise in the view of the flight direction

6.5 Diameter: 2700 mm

7. Fluids

7.1 Fuel: Jet fuel ESSO ICP 80
SHELL Avgas 80
SHELL Avgas 100 LL
BP 100 L
BL 78 according to ČSN 65 6510

7.2 Oil: AEROSHELL Oil W 100, 120
ELF Aviation AD 100
MOBIL Aero D 100
BP Aero Oil 100
CASTROL Aero AD 100
TOTAL Aero D 100

8. Fluid capacities

8.1 Fuel: Total:
Main Fuel Tank 127 liters
Auxiliary Fuel Tank 127 liters

Usable:
Main Fuel Tank 126.5 liters
Auxiliary Fuel Tank 126.5 liters

8.2 Oil: 17.3 litres

9. Air Speeds:
Never exceeding speed $v_{NE}$ 270 km/hr IAS

Maximum speed for normal manoeuvres $v_{NO}$ 175 km/hr IAS

Design manoeuvring speed $v_{s}$ 170 km/hr IAS

Maximum flaps extended speed $v_{m}$ 150 km/hr IAS

10. Maximum Operating Altitude: Without agricultural equipment 3785 m

11. Operational Capability VFR-Day operations

12. Maximum Weights: Maximum take-off weight 1600 kg

13. Center of Gravity Range: 23 - 31 % MAC

14. Datum: Fuselage System frame No. 1 (firewall)
15. Mean Aerodynamic Chord (MAC): 2.0 m

16. Levelling Means: Identical with the basic fuselage level – see the Aircraft Maintenance Manual

17. Minimum Flight Crew: 1

18. Number of seats: 2 including the pilot seat

19. Baggage/Cargo Compartments: 38 kg

20. Wheels and Tyres: Main landing gear wheel K 560.3-00-7 with tyre 556 x 163 mm Model 2

Rear landing gear wheel K 290-00-7 with tyre 290 x 110 mm Ant shimmy

21. Control surface deflections:

<table>
<thead>
<tr>
<th>Surface</th>
<th>Up</th>
<th>Down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ailerons</td>
<td>+26° ±1°</td>
<td>-18.5° ±1°</td>
</tr>
<tr>
<td>Elevator</td>
<td>+35° –0° +2°</td>
<td>-20° - 0° +2°</td>
</tr>
<tr>
<td>Rudder</td>
<td>±26° + 2° –1°</td>
<td></td>
</tr>
<tr>
<td>Inner flaps</td>
<td>retracted 8.5°</td>
<td>take-off 18.5°</td>
</tr>
<tr>
<td>Outer flaps</td>
<td>retracted 5°</td>
<td>take-off 15°</td>
</tr>
</tbody>
</table>

22. Load factors: + 3.8 g - 1.4 g
D.IV. Operating and Service Instructions

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   - In Czech language: Letová příručka pro letoun Z – 37A
     Do-Z37-1011.1
   - In Czech language: Letová příručka pro letoun Z-37A-Čmelák modifikace C2,C3
     Do-Z37-1012.1

2. Maintenance manual:
   - In Czech language: Technický popis letounu Z – 37A
     Do-Z37-1021.1
   - In Czech language: Doplněk k technickému popisu pro letoun Z-37A-2
     Do-Z37-3022.0
   - In Czech language: Příručka pro obslhu a údržbu letounu Z – 37A
     Do-Z37-1031.0
   - In Czech language: Doplněk k příručce pro obslhu a údržbu letounu Z – 37A – 2
     Do-Z37-3022.0
   - In Czech language: Palubní a elektrické přístroje použité na letounu Z – 37A
     Do-Z37-3311.0

3. Operational manuals for engine and propeller:
   - In Czech language: Příručka: Letecký motor M 462 RF - technický popis a návod k obsluze
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Note 4: Transfer of the TCDS EASA.A.445 from Aircraft Industries, a.s. (former name: LET, n.p.) to Agroair, spol.s.r.o.

SECTION D2: Reserved
## CHANGE RECORD

<table>
<thead>
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<th>Issue</th>
<th>Date</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 1</td>
<td>27-Mar-2007</td>
<td>Transfer of Z-37 Type Design to EASA</td>
</tr>
<tr>
<td>Issue 2</td>
<td>22-May-2024</td>
<td>Transfer of Certificate from Aircraft Industries, a.s. to Agroair,spol. s.r.o.</td>
</tr>
</tbody>
</table>