# TYPE-CERTIFICATE

# DATA SHEET

**No.EASA.A.445**

**for**

**Z–37 - Series**

**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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## SECTION A1: GENERAL, Z - 37 Type Design

### A.I. General

| | | |
|---|---|---|
| 1. | a)Type:<br>b) Variant: | Z – 37<br>--- |
| 2. | Airworthiness Category: | Restricted Category (see Note 1) |
| 3. | Type Certificate Holder: | AGROAIR, spol. s.r.o..<br>Štěpánkova 86<br>537 01 Chrudim<br>CZECH REPUBLIC<br>(see Note 4 ) |
| 4. | Manufacturer: | From S/N 00-01 to S/N 27-19<br>LET, n.p.<br>686 04 Kunovice 1177<br>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)<br><br>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.<br><br>D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN<br><br>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 $v_{so}$

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 | $v_{NE}$ | 270 km/h IAS | |
| | Maximum speed for normal manoeuvers | $v_{NO}$ | 175 km/h IAS | |
| | Design manoeuvring speed | $v_A$ | 170 km/h IAS | |
| | Maximum flaps extended speed | $v_{FE}$ | 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 | 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: | Aerial works | | + 3.5 g - 1.4 g |
| | Cargo | | + 3.8 g - 1.52 g |

## A.IV. Operating and Service Instructions

1. Flight manual:

| | |
|---|---|
| -In Czech language: | Letová příručka pro letoun Z – 37<br>Do-Z37-1010.0 |

2. Maintenance manual:

| | |
|---|---|
| -In Czech language: | Technický popis letounu Z – 37<br>Do-Z37-1023.0 |
| -In Czech language: | Příručka pro obsluhu a údržbu letounu Z – 37<br>Do-Z37-1031.0 |
| -In Czech language: | Technický popis a návod k obsluze násypného zařízení LN 2-00<br>Do-Z37-1042.0 |
| -In Czech language: | Popis a návod k obsluze nádrže mechanického náhonu<br>Do-Z37-1045.0 |
| -In Czech language: | Popis a návod k obsluze rozmetacího a poprašovacího zařízení<br>Do-Z37-1040.0 |
| -In Czech language: | Popis a návod k obsluze postřikovacího zařízení, vodní trysky, olejové trysky<br>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:<br>b) Variant: | Z – 37<br>Z - 37 – 2 |
| 2. | Airworthiness Category: | Restricted (see Note 1) |
| 3. | Type Certificate Holder: | AGROAIR, spol. s.r.o.<br>Štěpánkova 86<br>537 01 Chrudim<br>CZECH REPUBLIC<br>(see Note 4 ) |
| 4. | Manufacturer: | From S/N 00-10<br>LET, n.p.<br>686 04 Kunovice 1177<br>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)<br><br>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.<br><br>D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN<br><br>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 $v_{so}$

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

**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 | 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 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/h IAS |
| Maximum speed for normal manoeuvers | $v_{NO}$ | 175 km/h IAS |
| Design manoeuvring speed | $v_A$ | 170 km/h IAS |
| Maximum flaps extended speed | $v_{FE}$ | 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<br>with tyre 556 x 163 mm Model 2<br><br>Rear landing gear wheel K 290-00-7<br>with tyre 290 x 110 mm Ant shimmy | | |
| 21. | Control surface deflections: | Ailerons | up<br>down | +26° ±1°<br>–18,5° ±1° |
| | | Elevator | up<br>down | +35° –0° +2°<br>–20° - 0°+2° |
| | | Rudder | | +26° + 2°–1° |
| | | Inner flaps | retracted<br>take-off<br>landing | 8.5°<br>18.5°<br>53.5° |
| | | Outer flaps | retracted<br>take-off<br>landing | 5°<br>15°<br>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<br>Do-Z37-1010.0 |
| -In Czech language: | Doplněk k letové příručce pro letoun Z - 37 – 2<br>Do-Z37-3022.0 |

2. Maintenance manual:

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

### C.I. General

| | | |
|---|---|---|
| 1. | a) Type:<br>b) Variant: | Z – 37<br>Z - 37A |
| 2. | Airworthiness Category: | Restricted Category (see Note 1) |
| 3. | Type Certificate Holder: | AGROAIR, spol. s.r.o.<br>Štěpánkova 86<br>537 01 Chrudim<br>CZECH REPUBLIC<br>(see Note 4 ) |
| 4. | Manufacturer: | From S/N 01-05 to S/N 25-38<br>LET, n.p.<br>686 04 Kunovice 1177<br>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)<br>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.<br>D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN<br>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 $v_{so}$ |
| 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 |

| | | |
|---|---|---|
| | 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 |

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

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 maneuvers | $v_{NO}$ | 175 km/hr IAS |
| | Design manoeuvring speed | $v_A$ | 170 km/hr IAS |
| | Maximum flaps extended speed | $v_{FE}$ | 150 km/hr IAS |
| 10. Maximum Operating Altitude: | Without agricultural equipment | | 4000 m |
| | With agricultural equipment | | 3670 m |
| 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: | 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: | For aerial works | | + 3.5 g - 1.4 g |
| | Cargo | | + 3.8 g - 1.52 |

## C.IV. Operating and Service Instructions

1. Flight manual:

| | |
|---|---|
| -In Czech language: | Letová příručka pro letoun Z - 37A<br>Do-Z37-1011.1 |

2. Maintenance manual:

| | |
|---|---|
| -In Czech language: | Technický popis letounu Z - 37A<br>Do-Z37-1021.1 |
| -In Czech language: | Příručka pro obsluhu a údržbu letounu Z - 37A<br>Do-Z37-1031.0 |
| -In Czech language: | Technický popis a návod k obsluze násypného zařízení LN 2-00<br>Do-Z37-1042.0 |
| -In Czech language: | Popis a návod k obsluze nádrže mechanického náhonu<br>Do-Z37-1045.0 |
| -In Czech language: | Popis a návod k obsluze rozmetacího a poprašovacího zařízení<br>Do-Z37-1040.0 |
| -In Czech language: | Popis a návod k obsluze postřikovacího zařízení, vodní trysky, olejové trysky<br>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:<br>b)Variant: | Z – 37<br>Z - 37A – 2 |
| 2. | Airworthiness Category: | Restricted (see Note 1) |
| 3. | Type Certificate Holder: | AGROAIR, spol.s.r.o..<br>Štěpánkova 86<br>537 01 Chrudim<br>CZECH REPUBLIC<br>(see Note 4 ) |
| 4. | Manufacturer: | From S/N 05-17<br>LET, n.p.<br>686 04 Kunovice 1177<br>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)<br>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 taxiing complies with regulation is not determined.<br>D2-8 5.4.1 Longitudinal control forces change caused by concurrent increase of engine power and flaps retraction is 16 to 19 daN<br>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 $v_{so}$ |
| 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

**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:

| | |
|---|---|
| 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 |
| 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<br>SHELL Avgas 80<br>SHELL Avgas 100 LL<br>BP 100 L<br>BL 78 according to ČSN 65 6510 |
| 7.2 Oil: | AEROSHELL Oil W 100, 120<br>ELF Aviation AD 100<br>MOBIL Aero D 100<br>BP Aero Oil 100<br>CASTROL Aero AD 100<br>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 manoeuvers | $v_{NO}$ | 175 km/hr IAS |
| | Design manoeuvring speed | $v_{A}$ | 170 km/hr IAS |
| | Maximum flaps extended speed | $v_{FE}$ | 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:

| | | |
|---|---|---|
| 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: + 3.8 g - 1.4 g

## D.IV. Operating and Service Instructions

1. Flight manual:

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

2. Maintenance manual:

| | |
|---|---|
| -In Czech language: | Technický popis letounu Z – 37A<br>Do-Z37-1021.1 |
| -In Czech language: | Doplněk k technickému popisu pro letoun Z-37A-2<br>Do-Z37-3022.0 |
| -In Czech language: | Příručka pro obsluhu a údržbu letounu Z – 37A<br>Do-Z37-1031.0 |
| -In Czech language: | Doplněk k příručce pro obsluhu a údržbu letounu Z – 37A – 2<br>Do-Z37-3022.0 |
| -In Czech language: | Palubní a elektrické přístroje použité na letounu Z – 37A<br>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 |

**D.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 D2: Reserved

## CHANGE RECORD

| Issue | Date | Changes |
|---|---|---|
| Issue 1 | 27-Mar-2007 | Transfer of Z-37 Type Design to EASA |
| Issue 2 | 22-May-2024 | Transfer of Certificate from Aircraft Industries, a.s. to Agroair,spol. s.r.o. |
| | | |
| | | |