Civil Aviation Authority Czech Republic

L 60

CAA CZ

TYPE-CERTIFICATE DATA SHEET

L 60

Type Certificate Holder:

EVEKTOR, spol. s r. o.

Letecká 1008 686 04 Kunovice **CZECH REPUBLIC**

Manufacturer:

ORLIČAN n. p.

Choceň **CZECH REPUBLIC**

AEROTECHNIK podnik UV Svazarmu

686 04 Kunovice **CZECH REPUBLIC**

AEROTECHNIK a. s.

Letecká 1384 686 04 Kunovice **CZECH REPUBLIC**

For variants: L 60

> L 60 S L 60 SF

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List of effective Pages:

Page	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Issue	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Page	17															
Issue	7															

CONTENT

SECTION A1: GENERAL, L 60 Type Design

- Al. General
- All. Certification Basis
- AIII. Technical Characteristics and Operational Limitations
- AIV. Operating and Service Instructions
- AV. Notes

SECTION A2: Reserved

SECTION B1: GENERAL, L 60 S Type Design

- Bl. General
- BII. Certification Basis
- BIII. Technical Characteristics and Operational Limitations
- BIV. Operating and Service Instructions
- BV. Notes

SECTION B2: Reserved

SECTION C1: GENERAL, L 60 SF Type Design

- CI. General
- CII. Certification Basis
- CIII. Technical Characteristics and Operational Limitations
- CIV. Operating and Service Instructions
- CV. Notes

SECTION C2: Reserved

SECTION A1: GENERAL, L 60 Type Design

Al. General

1. a) Type: L 60 b) Variant: L 60

2. Airworthiness Category: Normal

3. Type Certificate Holder: EVEKTOR, spol. s r. o.

Letecká 1008 686 04 Kunovice CZECH REPUBLIC

4. Manufacturer: ORLIČAN n. p.

Choceň

CZECH REPUBLIC

5. Certification Application Date: 1955

6. CAA CZ Certification Date: 17.7.1958

All. Certification Basis

1. Reference Date for determining

the applicable requirements 1955

2. Certification Basis: ---

3. Airworthiness Requirements: Airworthiness directive BVF dated 1936 and

BCAR dated 1951.

4. Requirements elected to comply: None

5. Special Conditions: None

6. Exemptions: None

7. Equivalent Safety Findings: None

8. Environmental Standards: None

AIII. Technical Characteristics and Operational Limitations

1. Type Design Definition: ---

2. Description: L-60 is a single-engined, high-wing

monoplane of a compound structure with a conventional arrangement of tail surfaces and a fixed landing gear with oleo-pneumatic

absorbers and a tail skid.

3. Equipment: Minimum equipment list is attached to the

document: "Letová příručka a provozní návod

letadla L-60" ref. no. 3029/58.

Magnetic compass
Turn and bank indicator

Air speed indicator Vertical speed indicator

Altimeter

Oil and fuel temperature meter and pressure

gauge Tachometer V-A meter

Flap position indicator

4. Dimensions:

 Span
 13.96 m

 Length
 8.54 m

 Height
 2.72 m

 Wing Area
 24.3 m²

5. Engine:

5.1 Model: Praga M 208 B

5.2 Type Certificate: Č. j. 301 59-1958

5.3 Limitations: Max. Take-off Power 160 kW

6. Propeller:

6.1 Model: V411

6.2 Type Certificate: č. j. 808/58 Supplement no.1, č. j. 3542/60,

26.8.1958

6.3 Number of Blades: 2

6.4 Diameter: 2 750 mm

6.5 Sense of Rotation: right

7. Fluids:

7.1 Fuel: 200 litres

Aviation petrol 67-80 oct.

7.2 Oil: 16 litres (min. 6 litres)

Aviation mineral oil, refer to the document "Letová příručka a provozní návod letadla

L-60".

8. Air Speeds:

 $\begin{array}{lll} \mbox{Never Exceed Speed V_{NE}} & 270 \mbox{ km/h IAS} \\ \mbox{Rough Air Speed V_{RA}} & 140 \mbox{km/h IAS} \\ \mbox{Max. Flap Extended Speed V_{FE}} & 135 \mbox{km/h IAS} \\ \end{array}$

9. Max. operating ceiling: 4200 m

10. Operational Capability: Day and night VFR

11. Maximum Weights:

Maximum Take-off Weight: 1557/1551/1560 kg (see note 1)

Maximum Take-off Weight:1320 kg (see note 2)Maximum Take-off Weight:1320 kg (see note 3)Maximum Take-off Weight:1437 kg (see note 4)Maximum Take-off Weight:1458 kg (see note 5)Maximum Take-off Weight:1455 kg (see note 6)

Empty Weight: $1000 \text{ kg} \pm 3\%$ Maximum Baggage Weight: 20 kg (see note 6)

12. Centre of Gravity Range: Forward limit 20% MAC for G=1100kg

Rear limit 35% MAC for Gmax

13. Datum: Firewall

14. Levelling Means: Longitude axis: leveling points 1L and 2L

Transverse axis: leveling points 1L and 1P

15. Minimum Flight Crew: 1 (Pilot)

16. Maximum Passenger Seating Capacity: 3

17. Lifetime limitations: see the document: "Příručka pro údržbu"

18. Other limitations: Load factors: +2,55G

-1,00G

19. Deflection angles of control surfaces: Aileron up 30°± 2°

 $\begin{array}{ccc} & \text{down} & 20^\circ \pm 2^\circ \\ \text{Elevator} & \text{up} & 40^\circ \pm 2^\circ \\ \text{down} & 20^\circ \pm 2^\circ \\ \text{Rudder to both sides} & 27^\circ \pm 2^\circ \\ \text{Flaps} & 50^\circ \end{array}$

Trim tab up $12^{\circ} \pm 1^{\circ}$ down $35^{\circ} \pm 1^{\circ}$

20. Wheels and Tyres: Main landing gear Aero 500x180

Tail-wheel unit 260x85

AIV. Operating and Service Instructions

1. Flight manual:

In Czech language Letová příručka a provozní návod letadla L 60,

approved by the State Aviation Administration ref. No. 3029/58, or later revisions approved by the CAA.

2. Operating and Maintenance Manual

Aircraft (In Czech language) Letová příručka a provozní návod letadla L 60,

approved by the State Aviation Administration ref. No. 3029/58, or later revisions approved by the CAA.

Engine (In Czech language)
 Letadlový motor DORIS B - popis

obsluha -

udržování

Engine (In Czech language)
 Doplněk pro motor Praga DORIS M-208BI

Propeller (In Czech language)
 Technický popis a provozní instrukce vrtule V 415

(V 411B)

AV. Notes

- 1. The given data applies to the version L 60 B. This version is designed for oil and water spraying and dusting with chemical substances for agricultural works. A reservoir for 340 or 420 litres is located in the cockpit behind the pilot seat. It can be refilled from the outside of the airplane. The pilot controls the pump or the sprayer which is attached to the neck of the reservoir below the fuselage. Weight during dusting and sowing: 1557 kg / oil spraying 1551 kg / water spraying 1560 kg.
- 2. The given data applies to the version L 60 C. This version is dedicated for sports purposes.
- 3. The given data applies to the version L 60 D. This version is designed for towing of one, two, or three gliders. It is equipped with a winch with 65 m long nylon rope. The rope is wound onto the drum in the fuselage after the glider is released. Two gliders are towed on a double rope which is attached to the lock at the end of the fuselage. The lock is controlled by the switch on the cockpit floor. The third glider is attached to the rope connected to the winch. Max. weight of the towed gliders for double and triple towing is 1100 kg while the force exerted on the lock on the towing airplane must not exceed 835 kg during taxiing.
- 4. The given data applies to the version L 60 E. This version is designed for transport of two wounded persons and one accompanying person and it is also equipped with sanitary equipment. The stretchers are located one above the other on the right side of the cockpit. The paramedic sits behind the pilot on a special seat. The rear part of the cockpit is hinged so that the wounded persons can be boarded.
- 5. The given data applies to the version L 60 F. This version is designed for parachute flights. The cockpit is equipped with a seat for the parachutist before the jump (this seat is located next to the pilot and it is turned against the direction of flight) and a seat for the second parachutist and the instructor in the rear part of the cockpit. The speed for parachute jumps is 100-120 km/h with flaps extended to 15°.
- 6. The given data applies to the version L 60 G. This four-seat version is designed for transport of passengers. It is equipped with two upholstered front seats for the pilot and one passenger and an upholstered rear seat for two passengers. The baggage compartment is located behind this seat.

SECTION A2: Reserved

SECTION B1: GENERAL, L 60 S

Bl. Všeobecně

1. a) Type: L 60 b) Variant: L 60 S

2. Airworthiness Category: Normal

3. Type Certificate Holder: EVEKTOR, spol. s r. o.

Letecká 1008 686 04 Kunovice CZECH REPUBLIC

4. Manufacturer: AEROTECHNIK, podnik UV Svazarmu.

Uherské Hradiště-Kunovice

CZECH REPUBLIC

5. Certification Application Date: 1976

6. CAA CZ Certification Date: 17.07.1976

BII. Certification Basis

1. Reference Date for determining 1955 the applicable requirements:

2. Certification Basis: ---

3. Airworthiness Requirements: Airworthiness directive BVF dated 1936 and

BCAR dated 1951.

4. Requirements elected to comply: None

5. Special Conditions: None

6. Exemptions: None

7. Equivalent Safety Findings: None

8. Environmental Standards: None

BIII. Technical Characteristics and Operational Limitations

1. Type Design Definition: ---

2. Description: L-60 S is a single-engined, high-wing

monoplane of a compound structure with a conventional arrangement of tail surfaces and a fixed landing gear with oleo-pneumatic

absorbers and a tail skid.

3. Equipment: Minimum equipment list is attached to the

document: "Letová příručka letounu L-60 S"

ref. No. 3927/1171/76 Magnetic compass

Turn and bank indicator Air speed indicator Vertical speed indicator

Altimeter

Oil and fuel temperature meter and pressure

gauge Tachometer V-A meter

Flap position indicator

4. Dimensions:

 Span
 13.96 m

 Length
 8.54 m

 Height
 2.72 m

 Wing Area
 24.3 m²

5. Engine:

5.1 Model: Al-14 RA

5.2 Type Certificate CB-125 dated 26.6.1976

5.3 Limitations: Max. Take-off Power 190 kW Max. Continuous Power 160 kW

Max. Engine RPM2 350 ot/minMax. Continuous RPM2 050 ot/minMax. Cylinder Head Temperature 210℃

Max. Oil Temperature 115℃
Min. Oil Temperature 40℃

6. Propeller:

6.1.1 Model: US-122 000(W-530-D11/N)

6.1.2 Type Certificate: DB-118 dated 23.3.1978

6.1.3 Number of Blades: 2

6.1.4 Diameter: 2 650 (2 750 mm)

6.1.5 Sense of Rotation: left

or

6.2.1 Model: L 60S.607.00

6.2.2 Type Certificate: Č.81-01 dated 7.10.1981

6.2.3 Number of Blades: 2

6.2.4 Diameter: 2 650

6.2.5 Sense of Rotation: left

7. Fluids:

7.1. Fuel: 200 litres

Aviation petrol MIN. 71 oct.

7.2 Oil: 16 litres (min. 6 litres)

Aviation mineral oil, refer to the document "Letová příručka a provozní návod letadla

L-60 S".

8. Air Speeds:

 $\begin{array}{lll} \mbox{Never Exceed Speed V_{NE}} & \mbox{160 km/h IAS} \\ \mbox{Rough Air Speed V_{RA}} & \mbox{140km/h IAS} \\ \mbox{Max. Flap Extended Speed V_{FE}} & \mbox{140km/h IAS} \\ \end{array}$

9. Max. operating ceiling: 3500 m

10. Operational Capability: Day and night VFR

11. Weights:

Maximum Take-off Weight: 1560 kg
Empty Weight: 1030 kg ± 3%

Maximum Baggage Weight: 20 kg

12. Centre of Gravity Range: Forward limit 23% MAC for G=1100kg

Rear limit 32,5% MAC for Gmax

Forward limit 24,5% MAC for G=1100kg
Rear limit 34% MAC for Gmax

(see note 1)

13. Datum: Firewall

14. Levelling Means: Longitude axis: leveling points 1L and 2L

Transverse axis: leveling points 1L and 1P

15. Minimum Flight Crew: 1 (Pilot)

16. Maximum Passenger Seating Capacity: 3

17. Lifetime limitations: see "Příručka pro údržbu"

18. Other limitations: Load factors: +2,55G

-1,00G

19. Deflection angles of control surfaces: Aileron up $30^{\circ} \pm 2^{\circ}$

 $\begin{array}{ccc} & & \text{down} & 20^{\circ} \pm 2^{\circ} \\ \text{Elevator} & & \text{up} & 40^{\circ} \pm 2^{\circ} \end{array}$

Elevator up $40^{\circ} \pm 2^{\circ}$ down $20^{\circ} \pm 2^{\circ}$

Rudder to both sides $27^{\circ} \pm 2^{\circ}$ Flaps 30° Trim tab up $13^{\circ} \pm 1^{\circ}$

down 23°±1°

20. Wheels and Tyres: Main landing gear Aero 500x180

Tail-wheel unit 260x85

BIV. Operating and Service Instructions

1. Flight Manual:

- In Czech language Letová příručka letounu L-60 S, approved by

L 60

the State Aviation Administration ref. No. 3927/1171/76, or later revisions approved by

the CAA

- In Czech language Dodatek č. 1 k Letové příručce letounu L-60 S

s vlečnou vrtulí L 60S.607

- In Czech language Dodatek č. 2 Letové příručky L-60 S

In Czech language Letová příručka L-60 S. Dodatek č. 2AT

2. Operating and Maintenance Manual:

- Aircraft (In Czech language) Letová příručka a provozní návod letadla L 60,

approved by the State Aviation Administration ref. No. 3029/58, or later revisions approved

by the CAA.

- Aircraft (In Czech language) Technický popis a návod k obsluze letounu

L-60 S (Příručka pro mechanika), issued November 1976 or later approved revision

Aircraft (In Czech language)
 Technický popis L-60 S. Dodatek č. 2AT.

Aircraft (In Czech language)
 Dodatek č. 4 Technického popisu a návodu

k obsluze letounu L-60 S

- Engine (In Czech language) Návod k obsluze a provádění periodických

prací na leteckých motorech Al-14 R 6.serie a Al-14 RA, issued September 12 1966

- Engine (In Czech language) Provozní instrukce pro letecký motor Al-14 RA,

issued January 11 1969

- Propeller (In Czech language) Technický popis, návod k obsluze a návod

k provádění oprav vrtule W-530-D11/N

a US-122 000

- Propeller (In Czech language) Dodatek č. 1 k Příručce pro mechanika L-60 S

s vlečnou vrtulí L 60S.607

BV. Notes

1. Apply for aircraft equipped with the wooden propeller L 60S.607.00.

SECTION B2: Reserved

SECTION C1: GENERAL, L 60 SF

CI. General

1. a) Type: L 60 b) Variant: L 60 SF

2. Airworthiness Category: Normal

3. Type Certificate Holder: EVEKTOR, spol. s r. o.

Letecká 1008 686 04 Kunovice CZECH REPUBLIC

4. Manufacturer: AEROTECHNIK n.p., podnik UV Svazarmu.

Uherské Hradiště- Kunovice

CZECH REPUBLIC

5. Certification Application Date: 1983

6. CAA CZ Certification Date: 17.07.1983

CII. Certification Basis

1. Reference Date for determining 1955

the applicable requirements

2. Certification Basis: ---

3. Airworthiness Requirements: Airworthiness directive BVF dated 1936 and

BCAR dated 1951

4. Requirements elected to comply: None

5. Special Conditions: None

6. Exemptions: None

7. Equivalent Safety Findings: None

8. Environmental Standards None

CIII. <u>Technical Characteristics and Operational Limitations</u>

1. Type Design Definition: ---

2. Description: L–60 SF is a single-engined, high-wing

monoplane of a compound structure with a conventional arrangement of tail surfaces and a fixed landing gear with oleo-pneumatic

absorbers and a tail skid.

3. Equipment: Minimum equipment list is attached to the

document: "Letová příručka letounu L-60 SF"

ref.no. 5020/1183/83Ka Magnetic compass

Turn and bank indicator Air speed indicator Vertical speed indicator

Altimeter

Oil and fuel temperature meter and pressure

gauge Tachometer V-A meter

Flap position indicator

4. Dimensions:

 Span
 13.96 m

 Length
 8.54 m

 Height
 2.72 m

 Wing Area
 24.3 m²

5. Engine:

5.1.1 Model: M 462 RF

5.1.2 Type Certificate: 66-04 dated 19.7.1966

5.1.3 Limitations: Max. Take-off Power 190 kW
Max. Continuous Power 140 kW

Max. Engine RPM 2 200 ot/min

6. Propeller:

6.1 Model: V 520 with speed controller LUN 7811-7

6.2 Type Certificate: 66-01 dated 21.3.1966

6.3 Number of Blades: 2

6.4 Diameter: 2 700 mm

6.5 Sense of Rotation: left

7. Fluids:

1.1 Fuel: 200 litres

Aviation petrol 78-100 oct.

7.2 Oil: 16 litres (min. 6 litres)

Letecký olej Aero Shell W 100, Elf.

8. Air Speeds:

 $\begin{array}{lll} \mbox{Never Exceed Speed V_{NE}} & \mbox{160 km/h IAS} \\ \mbox{Never Exceed Speed V_{RA}} & \mbox{140km/h IAS} \\ \mbox{Max. Flap Extended Speed V_{FE}} & \mbox{140km/h IAS} \\ \end{array}$

9. Max. operating ceiling: 3500 m

10. Operational Capability: Day and night VFR

11. Weights:

Maximum Take-off Weight: 1560 kg Empty Weight: 1030 kg ± 3%

Maximum Baggage Weight: 20 kg

19. Wheels and Tyres:

12. Centre of Gravity Range:	Forward limit Rear limit	23% MAC for G=1100kg 32,5% MAC for Gmax				
13. Datum:	Firewall					
21. Levelling Means:	Longitude axis: Transverse axis:	points 1L and 2L points 1L and 1P				
14. Minimum Flight Crew:	1 (Pilot)					
15. Maximum Passenger Seating Capacity:	3					
16. Lifetime limitations:	see "Příručka pro údržbu"					
17. Other limitations:	Load factors:	+2,55G				
		-1,00G				
18. Deflection angles of control surfaces:	Aileron	-1,00G up down	30°±2° 20°±2°			
18. Deflection angles of control surfaces:	Aileron Elevator	up down up	20°± 2° 40°± 2°			
18. Deflection angles of control surfaces:		up down up down	20°± 2°			
18. Deflection angles of control surfaces:	Elevator	up down up down	20°± 2° 40°± 2° 20°± 2°			
18. Deflection angles of control surfaces:	Elevator Rudder to both sid	up down up down	20°± 2° 40°± 2° 20°± 2° 27°± 2°			

Main landing gear Aero 500x180 Tail-wheel unit 260x85

CIV. Operating and Service Instructions

1. Flight manual:

In Czech language Letová příručka L-60 SF, approved by the

State Aviation Inspectorate ref. no.

5020/1183/83/Ka, or later revisions approved

by the CAA.

2. Operating and Maintenance Manual

Aircraft (In Czech language) Letová příručka a provozní návod letadla L 60,

approved by the State Aviation Administration ref. No. 3029/58, or later revisions approved by

the CAA.

- Aircraft (In Czech language) Technický popis a návod k obsluze letounu

L-60 S (Příručka pro mechanika), issued November 1976 or latter approved revision

- Aircraft (In Czech language) Technický popis a návod k obsluze letounu

L-60 S (Příručka pro mechanika) with appendix to L-60 SF, issued November

1976 or latter approved revision

Engine (In Czech language) Letecký motor M 462 RF. Technický popis

a návod k obsluze

Propeller (In Czech language)
 Technický popis a provozní instrukce vrtule

V 520

CV. Notes

None.

Oddíl C2: Reserved