



TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.026

for
L-410

Type Certificate Holder
Aircraft Industries, a.s.

**Na Záhonech 1177
686 04 Kunovice
CZECH REPUBLIC**

For models: L-410 M Turbolet
L-410 UVP – Turbolet
L-410 UVP-E
L 410 UVP-E9
L 410 UVP-LW
L 410 UVP-E-LW
L 410 UVP-E20
L 410 UVP-E20 CARGO
L-420
L 410 NG



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SECTION A: L-410 M TURBOLET

A.I. General

1. Type/ Model/ Variant

- | | |
|--------------|---|
| 1.1 Type: | L-410 |
| 1.2 Model: | L-410 M Turbolet |
| 1.3 Variant: | L-410 MA (see note 4) L-410 MU (see note 4) |

2. Airworthiness Category

Commuter

3. Manufacturer

LET, n.p.
686 04 Kunovice 1177
CZECHOSLOVAKIA

4. State of Design Authority Type Certificate Date

August 28, 1975

5. State of Design Authority Type Certificate Data Sheet

CAA CZ, 71-04

6. EASA Type Certification Date

March 28, 2007

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

N/A

2. Airworthiness Requirements

British Civil Airworthiness Requirements, BCAR Section K, Issue 5, 16.10.1972
British Civil Airworthiness Requirements, BCAR Section R, Issue 4, 10.04.1974
British Civil Airworthiness Requirements, BCAR Section J, Issue 3, 15.09.1966

3. Special Conditions

None

4. Exemptions

1. List of BCAR requirements for which exemptions were approved:

- | | |
|-----------------------------------|--|
| - K2-4, 2.4 | Final take-off climb |
| - K2-9, 2.1.3(a) | Ability to trim |
| - K2-10, 5.1 | Static lateral stability |
| - K4-3, 6.1.2 | Use of flame resistant materials |
| - K4-8, 2.2.3(d) | Indication of trim tab position |
| - K-1, 8.5 | Assembly of non-return valves in |
| - K5-4, 1.1 to 4.2.5 | Powerplant installation |
| - K5-5, 2.2.2 | De-icing and anti-icing precautions |
| - K5-5, 2.2.3 | Continuous and heavy icing |
| - K5-8, 1.1, 7.2, 8, 9.1, 9.2, 11 | Fire precautions |
| - K6-1, 2.1 | Equipment installation |
| - K6-1, 2.2 | Equipment approval |
| - R1-1, 3.2 | MESIT equipment stability |
| - R1-1, 4.1 | Flammability of radio equipment components |
| - J2-3, 4.3.3 | Types of circuit breakers used |
| - J3-2, 5.1 | Types of cables |



5. Deviations

None

6. Equivalent Safety Findings

For those exemptions specified in item 4 above appropriate measures were accepted showing, as a minimum, the same level of safety. These measures form parts of the certification data.

7. Environmental Protection

L16/I, Part II, Chapter 5

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Specification sheet B 001 001 N - L-410 M Turbolet

2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.

4. Dimensions

Wingspan	17.478	m
Length	13.605	m
Height	5.646	m
Wing Area	32.865	m ²

5. Engines

2

5.1. Model M601D installed with service bulletin L410MA/52b

5.2 Type Certificate EASA.E.070 (replacing 90-04, CAA CZ issued)

5.3 Limitations

Maximum take-off for 5 minutes power rating:

Gas generator speed	101.5	%
Propeller speed	2080	rpm
Maximum torque	100	%
Equivalent power	544	kW

Intermediate contingency power rating:

Gas generator speed	100.5	%
Propeller speed	1950 - 2080	rpm
Maximum torque	100	%
Equivalent power	507.5	kW

Maximum continuous power rating:

Gas generator speed	99	%
Propeller speed	1800 - 2080	rpm
Maximum torque	100	%
Equivalent power	478	kW



6. Load factors

Maximum positive limit load factor

-with wing flaps extended	2.0
-with wing flaps retracted	3.16

Maximum negative limit load factor

-1.26

7. Propeller

2

7.1 Model

V 508B

7.1.1 Type Certificate

EASA.P.028 (replacing 91-01, CAA CZ issued)

7.1.2 Number of blades

3

7.1.3 Diameter

2500 mm

7.1.4 Sense of Rotation

Clockwise in view of flight direction

or

7.2 Model

V 508D

7.2.1 Type Certificate

EASA.P.028 (replacing 91-01, CAA CZ issued)

7.2.2 Number of blades

3

7.2.3 Diameter

2500 mm

7.2.4 Sense of Rotation

Clockwise in view of flight direction

8. Fluids

8.1 Fuel

See AIRPLANE FLIGHT MANUAL

8.2 Oil

See applicable engine Operation Manual

9. Fluid capacities

9.1 Fuel Standard tank

Total	1020	kg
Usable	986	kg

9.2 Oil In one engine

Maximum	11	litre
Minimum	5.5	litre

10. Air Speeds

Never exceeding speed	V _{NE}	405	km/h IAS
Normal operating limit speed	V _{NO}	350	km/h IAS
Design manoeuvring speed	V _A	255	km/h IAS
Wing-flap extended speed	V _{FE}	230	km/h IAS
Landing gear extended speed	V _{LE}	250	km/h IAS
Maximum speed at gusts of 15 m/s		350	km/h IAS
Minimum control speed, take-off climb Flight Envelope	V _{MCA}	153	km/h IAS

11. Maximum Operating Altitude

6000 m

12. Approved Operations Capability

The aircraft is approved for Day and Night VFR and IFR flights.

Flights in icing conditions, with leading edge deicing system continuously ON, are permitted.

13. Maximum Weight

Maximum take-off weight	5700	kg
Maximum landing weight	5500	kg
Maximum zero-fuel weight	5290	kg



14. Centre of Gravity Range

Forward c.g. limit	17	% MAC
Aft c.g. limit	30	% MAC
Aft c.g. limit for MA and MU variants	28.5	% MAC

15. Datum

Datum point is the levelling point No. 2 on the fuselage, located 2.730 m aft of the fuselage nose tip.

16. Control surface deflections

Elevator	up	26°±1°
	down	26°30'±1°
Rudder	left and right	20°±1°
Aileron	up	27°±1°
	down	14°±1°
Wing flap inner	take-off position	18°(informative)
	landing position	41° +30'(informative)
Wing flap outer	take-off position	15°±1°
	landing position	41°30' -30'
Left aileron trim tab	up	20°±2°
	down	20°±2°
Elevator trim tab	up	10°±1°
	down	16°±1°
Rudder trim tab	left	20°±1°
	right	20°±1°

17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19L and 19P.

18. Minimum Flight Crew

2

19. Maximum Passenger Seating Capacity

17

20. Baggage/ Cargo Compartments

Maximum baggage load - front baggage compartment	140	kg
Maximum baggage load - rear baggage compartment	150	kg

21. Wheels and Tyres

Nose wheel K21-6000-7, tyre 9.00-6(550 x 225) M4
Main wheel K20-6100-7, tyre 12.50-10(720 x 310) M4

A.IV. Operating and Service Instructions

1. Flight Manual

Do-L410.1018.2	Letová příručka pro letoun L - 410 M Turbolet
Do-L410.1018.3	Letová příručka pro letoun L - 410 M Turbolet
Do-L410.1018.4	Letová příručka pro letoun L - 410 MA Turbolet
Do-L410.1018.6	Letová příručka pro letoun L - 410 MA Turbolet
Do-L410.1018.7	Letová příručka pro letoun L - 410 MA Turbolet



Do-L410.1018.5

Letová příručka pro letoun L - 410 MU

2. Maintenance Manual

2.1 Maintenance Schedule:

Do-L410.1052.1

Předpis pro údržbu letounu L 410 M

Do-L410.1052.4

Předpis pro údržbu letounu L 410 MA v experimentálním provozu bez generální opravy

2.2 Maintenance Manual:

Do-L410.1037.1

Technická příručka letounu L - 410 M Turbolet

Do-L410.1039.1

Technická příručka letounu L 410 MA

2.3 Album of Production, Operation and Repair Tolerances:

Do-L410.2030.0

Album výrobních a přípustných provozních tolerancí letounů L 410 A, L 410 AS, L 410 M, L 410 MA TURBOLET

2.4 Aging aircraft program:

Do-L410-1229.2

Aging aircraft program for the L 410 M aeroplane, L 410 UVP aeroplane, L 410 UVP-E aeroplane, L 410 UVP-E9 aeroplane, L 410 UVP-E20 aeroplane, L-420 aeroplane

Do-L410-1229.0

Příručka pro kontrolu letounů starších 20 let pro typy L 410 M, L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420

3. Structural Repair Manual

Do-L410-2021.1

Příručka pro opravu draku letounu L-410 v polních podmínkách

4. Illustrated Parts Catalogue

Do-L410.1043.1

Kusovník letounu L 410 M

5. Other

5.1 Wiring manual:

Do-L410.1062.1

Album elektroschemat letounu L 410 M

Do-L410.1069.1

Album elektroschemat letounu L - 410 MA

Do-L410.1068.1

Album elektroschemat letounu L 410 MU

A.V. Notes

1. This model was originally approved by CAA Czech under Type Certificate No. 75-04 on August 28, 1975.
2. The permission for continuous operation of those aircraft within EU member states after 1 July 2010 will be granted based on condition that essential safety modifications are carried out on the aircraft in accordance with the Service Bulletin L410M/095b, as mandated by EASA Airworthiness Directive 2008-0102. Aircraft that comply with Part A and Part B of Service Bulletin L410M/095b will be without any additional operation limitations. Aircraft that only comply with Part B of Service Bulletin L410M/095b will be restricted to transport of maximum 9 passengers or to Para trooping purposes.
3. Duly performance of the Service Bulletin L410M/246a (recorded to the Aircraft Log Book) converts the L-410 M model to the L-410 MA variant.
Duly performance of the Service Bulletin L410MU/291a (recorded to the Aircraft Log Book) of the L-410 M and L-410 MA to the L-410 MU variant.
4. Eligible Serial Numbers:
730206, 730207, 750401 through 750405, 750410, 750501 through 750515, 760601, 760602, 770603, 770605, 770606, 770609, 770610, 770701 through 770715, 770801 through 770815, 780901 through 780910, 781001 through 781020, 781101 through 781120.



SECTION B: L-410 UVP TURBOLET

B.I. General

1. Type/ Model/ Variant

- | | |
|--------------|---|
| 1.1 Type: | L-410 |
| 1.2 Model: | L-410 UVP-Turbolet
L-410 UVP-LW (see note 8) |
| 1.3 Variant: | L-410 FG (see note 9) |

2. Airworthiness Category

Commuter

3. Manufacturer

LET, n.p.
686 04 Kunovice 1177
CZECHOSLOVAKIA

4. State of Design Authority Type Certificate Date

July 10, 1979

5. State of Design Authority Type Certificate Data Sheet

CAA CZ, 71-04

6. EASA Type Certification Date

March 28, 2007

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

N/A

2. Airworthiness Requirements

NLGS-2 Regulations, Issue 2, 1974, Chapters 2, 3, 4, 5 and 7, including Changes 1 to 6
L8/C dated 29.03.1973
L8/R dated 10.04.1974
L8/J dated 01.01.1974
L/16 dated 05.01.1972

3. Special Conditions

None

4. Exemptions

List of NLGS-2 requirements for which exemptions have been approved:

- 3.1.5., 3.1.8., 3.18.2., 3.4.3.6, 3.4.3.7., 3.4.3.8, 3.4.3.9 3.4.3.10, 3.4.3.11, 3.6.3.9, 3.6.3.10, 3.4.1.2, 3.4.1.11, 3.4.2.3, 3.6.1.1, 3.6.1.13, 3.6.3.5 Various conditions of runway surface
- 3.4.3.5, 3.6.3.8, 3.7.4.5 Aeroplane movement at cross wind
- 3.6.1.5, 3.6.3.1 Landing distance from a height of 15 m
- 3.7.3 Wheel control forces
- 3.7.3.7 Ability to trim the aeroplane longitudinally
- 3.7.4.2 Spiral motion of the aeroplane
- 3.7.5.5 Flight performance in icing conditions
- 4.2.6, 3.1.2 Windshield strength
- 5.4.6, 5.4.8 Brake control system
- 5.1.11 Cabin noise
- 5.4.17 Brake system warning indication



- 5.5.5 Use of non-combustible hydraulic fluid
- 5.5.9 Hydraulic system backup
- 5.6.11, 5.11.12.5, 5.11.12.6, 7.5.3.1.2a, 7.5.1.2.2 Incombustibility of padding materials
- 5.7.2 Heating in pilot and passenger compartments
- 5.7.6 Air temperature in pilot compartment
- 5.7.8 Air-conditioning system
- 5.7.24 Automatic temperature control in pilot and passenger compartments
- 5.7.28 Maximum temperature of mixed air
- 5.7.32 Hot air temperature measurement
- 5.7.33 Air-conditioning system mode indication
- 5.9.6 Engine air intake icing indication
- 5.10.1.1, 5.10.3, 8.4.1.2, 8.4.2.1, 8.4.3.3, 8.4.3.5 Cockpit noise recorder
- 5.10.1.2 Flight data recorder
- 5.10.2.2 Flight data recording duration
- 5.11.8.2 Windows in emergency exits
- 5.11.10.1 Minimum width of aisle
- 5.12.6 Single-point fuelling
- 6.6.4 Clearance between propeller blade tips and airframe parts
- 7.1.1.11 Fuel transfer
- 7.1.2.9 Continuous fuelling
- 7.1.3.9 Impossibility of install. of non-return valves in reverse sense
- 7.1.3.11 Fuel system markings
- 7.17.1, 7.2.2.12, 7.2.6.1, 8.2.3.1, 7.1.7.2 Fuel flowmeter
- 7.1.7.3, 7.1.8.8.1 Fuel quantity measurement accuracy
- 7.1.8.8.3 Calibration of fuel level indicator
- 7.2.1.5 Overfilling of engine with oil
- 7.2.3.2 Oil system marking
- 7.5.1.3 Fire resistance of cable bundles
- 7.5.1.3.5 Fire warning sensors
- 7.5.1.4.6, 7.5.1.4.8, 7.5.1.2.7, 7.5.4.3.2 Automatic operation of fire extinguishing system
- 7.5.1.4.7 Inadvertent actuation of fire extinguishing system
- 7.5.1.4.11 Fire extinguishing system marking
- 7.5.2.1.7 Compressor air bleed
- 7.5.2.3.2 Fire extinguishing in engine inside cavities
- 7.5.3.2.3 Front baggage compartment fire warning system
- 8.1.2.14 Electromagnetic compatibility of equipment
- 8.2.2.1.1.b Limit angle of bank warning Autopilot
- 8.2.2.1.7, 8.2.2.1.9 Warning of pitch-angle, bank-angle and heading indication malfunction
- 8.3.2.1, 8.3.3.4, 2.2.2, 2.2.21 ATC transponder
- 8.4.1.2, 8.4.3.3 Passenger address system
- 8.4.2.1, 8.4.3.6, 2.2.21, 2.2.2 Emergency locator transmitter
- 8.5.3.1, 8.5.3.2, 8.5.4.9 Power supply of category 1 and 2 electrical services
- 8.5.4.2, 8.5.8.1 Generator characteristics
- 8.5.4.4, 8.5.8.1, 8.1.2.9 Auxiliary power supply characteristics
- 8.5.5.5, 8.5.8.1 Standby power supply characteristics
- 8.5.5.11, 8.5.8.1 Characteristics of ground power supply connectors
- 8.5.6.1, 8.5.8.2, 8.1.2.9 Characteristics of electrical loads
- 8.5.7.1 Self-extinguishing properties of electrical conductors
- 8.5.7.2 Location, attachment, binding, and protection of cable bundles
- 8.5.7.7 Security of cable attachment in connectors
- 8.6.2.17 Flash frequency of anti-collision beacon
- 8.7.1.9 Cockpit control knobs



5. Deviations

None

6. Equivalent Safety Findings

For those exemptions specified in item 4 above appropriate measures were accepted showing, as a minimum, the same level of safety. These measures form parts of the certification data.

7. Environmental Protection

L16/I, Part II, Chapter 5

B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Specification sheet B 001 101 N - L-410 UVP-Turbolet

2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.

4. Dimensions

Wingspan	19.479	m
Length	4.467	m
Height	5.829	m
Wing Area	35.18	m ²

5. Engines

2

5.1. Model

M601D

5.2 Type Certificate

EASA.E.070 (replacing 90-04, CAA CZ issued)

5.3 Limitations

Standard L 410 UVP-Turbolet aircraft

Maximum continuous power rating:

Maximum power	515	kW
Max. gas generator speed	99	%
Max. propeller speed	2080	rpm
Max. ITT	690	°C

Take-off power rating:

Maximum power	515	kW
Max. gas generator speed	101.5	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Take-off power rating with water injection:

Maximum power	515	kW
Max. gas generator speed	101.5	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

L 410 UVP - Turbolet aircraft after Bull. IB L410UVP/084b performance - maximum take-off weight increase to 6000 kg:

Maximum continuous power rating:



Maximum power	515	kW
Max. gas generator speed	99	%
Max. propeller speed	2080	rpm
Max. ITT	690	°C

Take-off power rating:

Maximum power	540	kW
Max. gas generator speed	101.5	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Take-off power rating with water injection:

Maximum power	540	kW
Max. gas generator speed	101.5	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

6. Load factors

Maximum positive limit load factor

-with wing flaps extended	2.0
-with wing flaps retracted	3.3

Maximum negative limit load factor

-1.0

7. Propeller

2

7.1 Model

V 508B

7.1.1 Type Certificate

EASA.P.028 (replacing 91-01, CAA CZ issued)

7.1.2 Number of blades

3

7.1.3 Diameter

2500 mm

7.1.4 Sense of Rotation

Clockwise in view of flight direction

7.2 Model

V 508D

7.2.1 Type Certificate

EASA.P.028 (replacing 91-01, CAA CZ issued)

7.2.2 Number of blades

3

7.2.3 Diameter

2500 mm max, 2498 mm min

7.2.4 Sense of Rotation

Clockwise in view of flight direction

8. Fluids

8.1 Fuel

See AIRPLANE FLIGHT MANUAL, Section II LIMITATIONS and Section VII HANDLING, SERVICING & MAINTENANCE

8.2 Oil

See applicable engine Operation Manual

9. Fluid capacities

9.1 Fuel	Standard tank	Total	1000	kg
		Usable	991	kg
9.2 Oil	In one engine	Maximum	11	litre
		Minimum	5.5	litre

10. Air Speeds

Maximum speed	V _D	410	km/h IAS
Maximum operating speed	V _{MO}	355	km/h IAS
Maximum flaps extended speed, take-off configuration 15°	V _{FE15°}	250	km/h IAS



Maximum flaps extended speed, landing configuration 35°	V _{FE35°}	205	km/h IAS
Maximum landing gear operating speed	V _{LO}	250	km/h IAS
Maximum landing gear extended speed	V _{LE}	250	km/h IAS
Maximum spoiler operating speed			
-for MTOW 5700 kg (see note 4)	V _{SP(5700)}	230	km/h IAS
-for MTOW 5800 kg (see note 7)	V _{SP(5800)}	180	km/h IAS
Minimum control speed on ground	v _{min ER}	125	km/h IAS
Minimum control speed, take-off	v _{min EV}	130	km/h IAS
Minimum control speed, balked landing	v _{min EK}	120	km/h IAS
Minimum control speed, landing	v _{min EP}	110	km/h IAS

11. Maximum Operating Altitude

4200 m

12. Approved Operations Capability

The aircraft is approved for Day and Night VFR and IFR flights.

13. Maximum Weight

Maximum take-off weight, (v _{SP} = 230 km/h)	(see note 5)	5700	kg
Maximum take-off weight, (v _{SP} = 180 km/h)	(see note 6)	5800	kg
Maximum take-off weight,	(see note 8)	6000	kg
Maximum take-off weight for L 410 UVP-LW	(see note 9)	5700	kg
Maximum landing weight		5500	kg
Maximum zero-fuel weight		5300	kg

14. Centre of Gravity Range

Forward c.g. limit	17	% MAC
Aft c.g. limit	28	% MAC

15. Datum

Datum point is the levelling point No. 2 on the fuselage, located 2.730 m aft of the fuselage nose tip.

16. Control surface deflections

Elevator	up	30°±1°
	down	14°+1°
Rudder	left and right	17°-30'
Aileron	up	27°±1°
	down	14°±1°
Wing flap inner	landing position	43°±1°
Wing flap outer	take-off position	15°±1°
	landing position	35°±1°
Left aileron trim tab	up	20°±2°
	down	20°±2°
Elevator trim tab	up	10°±1°
	down	16°±1°
Rudder trim tab	left	10°-1°
	right	10°-1°
Maximum spoiler deflection, up		72°30'±2°
Maximum ABC tab deflection, up		55°±2°



17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19L and 19P.

18. Minimum Flight Crew

2

19. Maximum Passenger Seating Capacity

15

20. Baggage/ Cargo Compartments

Maximum baggage load - front baggage compartment	140	kg
Maximum baggage load - rear baggage compartment	150	kg

21. Wheels and Tyres

Nose wheel K21-6000-7, tyre 9.00-6(550 x 225) M4	or	9.00-6/906 TO6 Good Year
Main wheel K20-6100-7, tyre 12.50-10(720 x 310) M4	or	29x11,0-10/11OTO1-1 GoodYear

B.IV. Operating and Service Instructions

1. Flight Manual

Do-L410.1019.2	Airplane Flight Manual for the L 410 UVP
Do-L410.1019.2	Letová příručka pro letoun L 410 UVP
Do-L410.1019.7	Letová příručka letounu L410 FG

2. Maintenance Manual

2.1 Maintenance Schedule:

For aircraft in overhaul-free maintenance system:

For airplanes whose system of maintenance has been changed to maintenance without overhaul in accordance with the I.B. L 410 UVP/096b or I.B. L410 UVP/126b

Do-L410-1053.6	Maintenance Schedule for the L 410 UVP Aeroplane without overhaul
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Do-L410-1053.4	Předpis pro údržbu letounu L-410 UVP bez GO
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Do-L410-1059.2	Předpis pro údržbu letounu L-410 FG bez GO
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For aircraft in overhaul maintenance system:

Do-L410-1053.2	Předpis pro údržbu letounu L-410 UVP
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Do-L410-1059.1	Předpis pro údržbu letounu L-410 FG
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2.2 Maintenance Manual:

Do-L410-1131.0	Maintenance Manual for the L 410 UVP Aeroplane
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Do-L410-1131.1	Provozně technická příručka pro letouny L-410 UVP
----------------	---

Do-L410-1131.6	Provozně technická příručka letounu L-410 FG
----------------	--

2.3 Album of Production, Operation and Repair Tolerances:

Do-L410-2032.2	Album of the Production, Operation and Repair Tolerances of the L 410 UVP Aeroplane
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Do-L410-2032.0	Album výrobních a přípustných provozních tolerancí
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2.4 Aging aircraft program:

Do-L410-1229.2	Aging aircraft program for the L 410 M aeroplane, L 410 UVP aeroplane, L 410 UVP-E aeroplane, L 410 UVP-E9 aeroplane, L 410 UVP-E20 aeroplane, L-420 aeroplane
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Do-L410-1229.0	Příručka pro kontrolu letounů starších 20 let pro typy L 410 M, L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420
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3. Structural Repair Manual

Do-L410-2021.2 Airframe Repair Manual for the L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420 Airplane

4. Illustrated Parts Catalogue

Do-L410-2052.2 Illustrated Parts Catalogue for the L 410 UVP Aeroplane

Do-L410-1044.1 Katalog dílů a montážních jednotek letounu L-410 UVP

Do-L410-1044.1 Doplněk katalogu dílů a montážních jednotek letounu L 410 UVP platný pro letoun L 410 FG

5. Other

5.1 Wiring manual:

Do-L410-1064.0 Wiring Manual for the L 410 UVP Aeroplane

Do-L410-1064.1 Album elektroschemat pro letouny L-410 UVP

Do-L410-1064.7 Album elektroschemat letounu L-410 FG

5.2 Inspection manual:

Do-L410-2012.2 Inspection Manual for the L 410 UVP Aeroplane (L 410 FG)

Do-L410-2012.0 Příručka pro revizi letounu L 410 UVP (L 410 FG)

B.V. Notes

1. This model was originally approved by CAA Czech under Type Certificate No. 79- 02 on July 10, 1979.
2. Previous maximum spoiler operating speed was provided by TC 79-02.
3. Previous maximum take-off weight was provided by TC 79-02.
4. Realisation of Service Bulletin L-410 UVP/052a provides increasing of MTOW to 5800 kg.
5. Service Bulletin L-410 UVP/052a provides reducing of max. spoiler operating speed to 180 km/h IAS.
6. Realisation of Service Bulletin L-410 UVP/084b provides increasing of MTOW to 6000 kg.
7. Duly performance of the L410UVP/140b Service Bulletin (recorded to the Aircraft Log Book) converts the L-410 UVP–Turbolet model to the L-410 UVP-LW model with lower MTOW 5700 kg.
8. L 410 FG variant is designed for photogrammetric works only.
9. The permission for continuous operation of each listed S/N aircraft within EU member states after 1 July 2010 will be granted based on condition that essential safety modifications are carried out on the aircraft in accordance with the Service Bulletin L410 UVP/149b as mandated by EASA Airworthiness Directive No. 2008-0103. Aircraft that comply with Part A and Part B of Service Bulletin L410 UVP/149b will be without any additional operation limitations. Aircraft that only comply with Part B of Service Bulletin L410 UVP/149b will be restricted to transport of maximum 9 passengers or to Para trooping purposes.
10. Eligible Serial Numbers:
L410 UVP: 770001, 770003, 770101, 770102, 770103, 790201 through 790220, 790301 through 790325, 800326 through 800330, 800401 through 800430, 800501 through 800530, 810601 through 810640, 810701 through 810732, 820733 through 820740, 820801 through 820840, 820901 through 820925, 830921, 830922, 830935 through 830940, 831001 through 831040, 831101 through 831125, 831135 through 831138, 841139, 841140, 841201 through 841240, 841301 through 841322, 841325, 841327 through 841333, 841338, 851335 through 851340, 851401 through 851427, 851431 through 851440, 851501 through 851520, 851527.
L 410 FG: 851521 through 851526, 851528



SECTION C: L-410 UVP-E

C.I. General

1. Type/ Model/ Variant

- | | |
|--------------|-----------------------------|
| 1.1 Type: | L-410 |
| 1.2 Model: | L-410 UVP-E |
| | L-410 UVP-E-LW (see note 4) |
| 1.3 Variant: | ---- |

2. Airworthiness Category

Commuter

3. Manufacturer

LET, n.p.	LET, a.s.
686 04 Kunovice 1177	686 04 Kunovice 1177
CZECHOSLOVAKIA	CZECHOSLOVAKIA /
	CZECH REPUBLIC

4. State of Design Authority Type Certificate Date

January 30, 1986

5. State of Design Authority Type Certificate Data Sheet

CAA CZ, 71-04

6. EASA Type Certification Date

March 28, 2007

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

N/A

2. Airworthiness Requirements

NLGS-2, Issue 2, 1974, Chapters 2, 3, 4, 5, 6, 7, 8 including Changes 1 to 21, temporary changes applicable to airplanes having a weight of less than 10 000 kg, and select requirements of ENLGS. Refer to C.V Notes for list of NLGS-2 requirements having been replaced by the requirements of ENLGS.

3. Special Conditions

None

4. Exemptions

- List of NLGS-2 requirements having been replaced by ENLGS requirements:
 - NLGS-2 para 3.6.1.5 replaced by ENLGS para 3.6.2.1 Actual landing distances
 - NLGS-2 para 5.2.8.4 replaced by ENLGS para 5.2.8.4 Remote electric control of wing flaps and spoilers
 - NLGS-2 para 5.4.2 replaced by ENLGS para 5.4.2 Brake fluid leakage
 - NLGS-2 para 5.4.6 replaced by ENLGS para 5.4.6 Landing with braked wheels
 - NLGS-2 para 5.4.8 replaced by ENLGS para 5.4.6 Skidding with braked wheels
 - NLGS-2 para 5.5.5 replaced by ENLGS para 5.5.5 Incombustible hydraulic fluid
 - NLGS-2 para 5.5.10 replaced by ENLGS para 5.5.9 Automatic change-over of primary hydraulic systems
 - NLGS-2 para 5.5.13 replaced by ENLGS para 5.5.5 Fire resistance and explosion resistance of hydraulic system
 - NLGS-2 para 5.7.6 replaced by ENLGS para 5.7.4 Control of air temperature in cabin
 - NLGS-2 para 5.11.8.2 replaced by ENLGS para 5.11.7.16 Windows in emergency exits



- NLGS-2 para 7.5.1.2.7 replaced by ENLGS para 7.5.1.2.5 Automatic operation of fire extinguishing system during emergency landing
 - NLGS-2 para 7.5.1.4.8 replaced by ENLGS para 7.5.1.2.5 Actuation of fire extinguishing system during emergency landing
 - NLGS-2 para 8.5.5.11 replaced by ENLGS para 8.5.2.13
2. List of NLGS-2 requirements for which exemptions have been approved:
- 3.6.1.3 Landing distances required
 - 3.7.5.2 Transient process characteristics during critical engine failure
 - 5.4.2 Brake fluid leakage
 - 5.4.17 Brake system warning indication
 - 5.7.2 Independence of air-conditioning system
 - 5.12.6 Single-point fuelling
 - 5.11.10.1 Width of aisle
 - 7.1.1.11 Overfilling of fuel tanks
 - 7.1.7.1 Fuel system instruments
 - 7.1.7.2 Fuel quantity checking
 - 7.1.7.3 Fuel reserve checking error
 - 7.1.8.8.1 Reserve fuel quantity indicator error
 - 7.2.6.1 Oil system instruments
 - 7.5.1.1.1a Fire precautions
 - 7.5.1.4.6 Automatic actuation of fire extinguishing system
 - 7.5.1.4.7 Inadvertent actuation of fire extinguishing system
 - 8.2.2.1.7 Pitch-angle, bank-angle, and heading indication after a failure
 - 8.2.2.1.9 Indication of correct operation of pitch-angle, bank-angle
 - 8.2.3.1 Engine instruments
 - 8.5.4.2 Generator characteristics
 - 8.5.5.5 Characteristics of protective devices
 - 8.5.6.1 Electrical loads-compliance with the requirements of P8.5
 - 8.5.7 Self-extinguishing properties of electrical conductors
 - 8.5.8.1 Electrical loads-compliance with the requirements of P8.5
 - 8.7.1.9 Cockpit control knobs-colour contrast

5. NLGS-2 para 7.1.2.9 replaced by ENLGS para 7.1.2.8 Part only: Fuelling time Deviations

None

6. Equivalent Safety Findings

For those exemptions specified in item 4 above appropriate measures were accepted showing, as a minimum, the same level of safety. These measures form parts of the certification data.

7. Environmental Protection

L16/I, Part II, Chapter 5

8. Operational Suitability Certification Basis

MMEL: CS-MMEL, Initial Issue

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Specification sheet B 500 200 N - L-410 UVP-E

2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.



4. Dimensions

Wingspan	19.980 m	with wing tip tanks
	19.479 m	without wing tip tanks
Length	14.467 m	
Height	5.829 m	
Wing Area	35.18 m ²	with wing tip tanks
	34.86 m ²	without wing tip tanks

5. Engines

2

5.1.1 Model	M601E
5.1.2 Type Certificate	EASA.E.070 (replacing 89-03, CAA CZ issued)

5.1.3 Limitations

Maximum continuous power rating:

Maximum power	560	kW
Max. gas generator speed	100.5	%
Max. propeller speed	2080	rpm
Max. ITT	760	°C

Take-off power rating:

Maximum power	560	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Take-off power rating with water injection:

Maximum power	560	kW
Max. gas generator speed	102	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Contingency power rating:

Maximum power	595	kW
Max. gas generator speed	102	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C

Or

5.1.1 Model	M601E-21
5.1.2 Type Certificate	EASA.E.070 (replacing 89-03, CAA CZ issued)

5.1.3 Limitations

Maximum continuous power rating:

Maximum power	560	kW
Max. gas generator speed	100.5	%
Max. propeller speed	2080	rpm
Max. ITT	760	°C

Take-off power rating:

Maximum power	560	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm



Max. ITT	735	°C
Take-off power rating with water injection:		
Maximum power	560	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C
Contingency power rating:		
Maximum power	595	kW
Max. gas generator speed	102	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C

6. Load factors

Maximum positive limit load factor

-with wing flaps extended	2.0
-with wing flaps retracted	3.1

Maximum negative limit load factor

-1.0

7. Propeller

2

7.1 Model

V 510

7.1.1 Type Certificate

EASA.P.028 (replacing 91-01, CAA CZ issued)

7.1.2 Number of blades

5

7.1.3 Diameter

2300 mm

7.1.4 Sense of Rotation

Clockwise in view of flight direction

8. Fluids

8.1 Fuel

See AIRPLANE FLIGHT MANUAL, Section II LIMITATIONS and Section VII HANDLING, SERVICING & MAINTENANCE

8.2 Oil

See applicable engine Operation Manual

9. Fluid capacities

9.1 Fuel	Standard tank	Total	1000	kg
		Usable	991	kg
	Wing tip tanks	Total	314	kg
		Usable	310	kg
9.2 Oil	In one engine	Maximum	11	litre
		Minimum	5.5	litre

10. Air Speeds

Maximum manouvering speed	V _A	260	km/h IAS
Maximum operating speed	V _{MO}	350	km/h IAS
Maximum flaps extended speed, landing configuration 42°	V _{FE}	220	km/h IAS
Maximum flaps extended speed, take-off configuration 18°	V _{FE}	250	km/h IAS
Maximum landing gear operating speed	V _{LO}	250	km/h IAS
Maximum landing gear extended speed	V _{LE}	250	km/h IAS
Maximum spoiler operating speed	V _{SP}	190	km/h IAS
Minimum control speed on ground	v _{minER}	130	km/h IAS
Minimum control speed, take-off	v _{minEV}	135	km/h IAS



Minimum control speed, balked landing	v_{minEK}	130	km/h IAS
Minimum control speed, landing	v_{minEP}	120	km/h IAS

11. Maximum Operating Altitude

4250 m

12. Approved Operations Capability

The aircraft is approved for Day and Night VFR and IFR flights.

The aircraft is approved for flights in condition of low and mean icing conditions at temperatures not lower than -20 °C.

13. Maximum Weight

Maximum taxiing weight	6420	kg
Maximum take-off weight	6400	kg
Maximum take-off weight for L 410 UVP-E-LW (see note 5)	5700	kg
Maximum landing weight	6200	kg
Maximum landing weight in exceptional cases	6200	kg
Maximum zero-fuel weight	5870	kg

14. Centre of Gravity Range

Forward c.g. limit	17	% MAC
Aft c.g. limit	28	% MAC

15. Datum

Datum point is the levelling point No. 2 on the fuselage, located 2.730 m aft of the fuselage nose tip.

16. Control surface deflections

Elevator	up	$30^{\circ} \pm 1^{\circ}$
	down	$14^{\circ} + 1^{\circ}$
Rudder	left and right	$17^{\circ} - 30'$
Aileron	up	$27^{\circ} \pm 1^{\circ}$
	down	$14^{\circ} \pm 1^{\circ}$
Wing flap inner	take-off position	18°
	landing position	$52^{\circ} \pm 1^{\circ} 30'$
Wing flap outer	take-off position	$18^{\circ} \pm 1^{\circ}$
	landing position	$42^{\circ} \pm 1^{\circ}$
Left aileron trim tab	up	$20^{\circ} \pm 2^{\circ}$
	down	$20^{\circ} \pm 2^{\circ}$
Elevator trim tab	up	$10^{\circ} \pm 1^{\circ}$
	down	$16^{\circ} \pm 1^{\circ}$
Rudder trim tab	left	$10^{\circ} - 1^{\circ}$
	right	$10^{\circ} - 1^{\circ} 30'$
Maximum spoiler deflection, up		$72^{\circ} 30' \pm 2^{\circ}$
Maximum ABC tab deflection, up		$55^{\circ} \pm 2^{\circ}$

17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19L and 19P.

18. Minimum Flight Crew

2



19. Maximum Passenger Seating Capacity

19

20. Baggage/ Cargo Compartments

Maximum baggage load - forward baggage compartment	140	kg
Maximum baggage load - aft baggage compartment	150	kg

21. Wheels and Tyres

Nose wheel K21-6000-7, tyre 9.00-6(550 x 225) M4	or	9.00-6/906 TO6-1 GoodYear
Main wheel K20-6100-7, tyre 12.50-10(720 x 310) M4	or	29x11,0-10/11OTO1-1 GoodYear

C.IV. Operating and Service Instructions

1. Flight Manual

Do-L410.1215.2	Airplane Flight Manual for the L 410 UVP-E
Do-L410.1215.0	Letová příručka pro letoun L410 UVP-E

2. Maintenance Manual

2.1 Maintenance Schedule:

For aircraft in overhaul maintenance system:

Do-L410-1221.1	Maintenance Schedule for the L 410 UVP-E Aeroplane
----------------	--

For aircraft in overhaul-free maintenance system:

Do-L410-1222.1	Maintenance Schedule for the L 410 UVP-E Aeroplane without overhaul
----------------	---

Do-L410-1222.1	Předpis pro údržbu letounu L-410 UVP-E bez GO
----------------	---

Do-L410-1228.2	Maintenance Schedule for the L 410 UVP-E Aeroplane without overhaul with 100 FH check
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2.2 Maintenance Manual:

Do-L410-1232.2	Maintenance Manual for the L 410 UVP-E Aeroplane L-410 UVP-E9 Aeroplane, L410 UVP-E20 Aeroplane
----------------	---

Do-L410-1232.0	Provozně technická příručka pro letoun L410 UVP-E, letoun L410 UVP-E9, letoun L410 UVP-E20
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2.3 Album of Production, Operation and Repair Tolerances:

Do-L410-2031.2	Album of Production, Operation and Repair Tolerances of the L410 UVP-E, -E9, -E20 Airplane
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Do-L410-2031.0	Album výrobních, provozních a opravárenských tolerancí letounu L-410 UVP-E, -E9, -E20
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2.4 Aging aircraft program:

Do-L410-1229.2	Aging aircraft program for the L 410 M aeroplane, L 410 UVP aeroplane, L 410 UVP-E aeroplane, L 410 UVP-E9 aeroplane, L 410 UVP-E20 aeroplane, L-420 aeroplane
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Do-L410-1229.0	Příručka pro kontrolu letounů starších 20 let pro typy L 410 M, L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420
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3. Structural Repair Manual

Do-L410-2021.2	Airframe Repair Manual L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420 Airplane
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4. Illustrated Parts Catalogue

Do-L410-2051.2	E-IPC – Electronic illustrated parts catalog L410 UVP-E, E9, E20
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5. Other

5.1 Wiring manual:

Do-L410-1242.2	Wiring Manual for the L 410 UVP-E Aeroplane, L 410 UVP-E9 Aeroplane, L 410 UVP-E20 Aeroplane
Do-L410-1242.0	Album elektroschemat pro letoun L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20

5.2 Inspection manual:

Do-L410-2011.2	Inspection Manual for the L 410 UVP-E Airplane, L 410 UVP-E9 Airplane, L 410 UVP-E20 Airplane
Do-L410-2011.0	Příručka pro revizi letounu L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20

6. Operational Suitability Data

Master Minimum Equipment List (MMEL)

Do-L410-3000.2	Master Minimum Equipment List L410 UVP-E, E9, E20
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C.V. Notes

1. This model was originally approved by CAA CZ under Type Certificate No. 86-01 on January 30, 1986.
2. Duly performance of the Service Bulletin L410UVP-E/192b (recorded to the Aircraft Log Book) converts the L-410 UVP-E model to the L-410 UVP-E-LW model with lower MTOW 5700kg.
3. The permission for continuous operation of each listed S/N aircraft within EU member states after 1 July 2010 will be granted based on condition that essential safety modifications are carried out on the aircraft in accordance with the Service Bulletin L-410 UVP-E/230b as mandated by EASA Airworthiness Directive 2008-0104. Aircraft that comply with Part A and Part B of Service Bulletin L-410 UVP-E/230b will be without any additional operation limitations. Aircraft that only comply with Part B of Service Bulletin L-410 UVP-E/230b will be restricted to transport of maximum 9 passengers or to Para trooping purposes.
4. Eligible Serial Numbers:
851321, 851324, 851334, 851428 through 851430, 861601 through 861620, 861701 through 861730, 861801 through 861810, 861813, 871811 through 871812, 871923, 871924, 872006 through 872038, 882207, 892214 through 892216, 892228, 892229, 892301, 892311 through 892324, 892329, 892334 through 892343, 892401 through 902406, 902414, 902418 through 902440, 902501 through 902521, 902525 through 902527, 912528 through 912540, 912601, 912602, 912605 through 912609, 912612, 912614, 912615, 912616, 912618, 952624 through 952626.
Other Serial Numbers are eligible as L-410 UVP-E model after rebuilding according to Service Bulletin L410UVP-E/108b recorded in an Airplane Log Book.
5. The variants and models designated L410 UVP-E1 through L410 UVP-E19, with the exception of the L410 UVP-E9, are in compliance with the TC for the L410 UVP-E aircraft. The differences in the numerical designations of these models and variants were introduced to distinguish the aircraft's equipment for marketing purposes.



SECTION D: L-410 UVP-E9

D.I. General

1. Type/ Model/ Variant

- 1.1 Type: L-410
1.2 Model: L 410 UVP-E9
1.3 Variant: ----

2. Airworthiness Category

Commuter

3. Manufacturer

LET, n.p. 686 04 Kunovice 1177 CZECHOSLOVAKIA	LET, a.s. 686 04 Kunovice 1177 CZECHOSLOVAKIA / CZECH REPUBLIC	LETECKÉ ZÁVODY, a.s. 686 04 Kunovice, Na Záhonech 1177 CZECH REPUBLIC	Aircraft Industries, a.s. 686 04 Kunovice, Na Záhonech 1177 CZECH REPUBLIC
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4. State of Design Authority Type Certificate Date

March 22, 1988

5. State of Design Authority Type Certificate Data Sheet

CAA CZ, 71-04

6. EASA Type Certification Date

March 28, 2007

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

N/A

2. Airworthiness Requirements

JAR 25, Change 11, dated 17.03.1986

3. Special Conditions

None

4. Exemptions

List of JAR-25 requirements for which exemptions have been approved:

- JAR 25.607 (a) Some removable fasteners in those systems specified in (1) and (2) of this paragraph do not incorporate two separate locking devices. They are secured by means of slotted nuts and split pins.
- JAR 25.672 (a) Only the condition of automatic bank control circuit is enunciated on the central warning display. Drop of pressure in the hydraulic system is indicated by a pressure gauge. Correct function of electrical circuit is checked before take-off by means of a TEST pushbutton.
- JAR 25.677 (b) For the aileron trim tab the neutral position is only enunciated. The Aeroplane Flight Manual requires that the neutral position must be checked before taxiing-out for take-off.
- JAR 25.679 The control surfaces can only be locked on the ground, by means of clamps. These locking devices are conspicuously marked by red flags.
- JAR 25.703 A yellow light on the central warning display annunciates that the wing flaps are not in the take-off position. Parking brake release is indicated by the position of the control lever and a change in pressure gauge reading.
- JAR 25.777 (e) The wing-flap control is located level with the landing gear control.
- JAR 25.777 (f) The landing gear control is not located of the throttles, but aft of the throttles.
- JAR 25.853 (c) The test in compliance with this requirement was not conducted.



- JAR 25.1305 (c) A fuel flow meter indicator is not included in the fuel system for each engine. The engine power setting is sufficiently characterized by the indicated engine parameters.
- JAR 25.1305 (c) (8) There is no indication of proper functioning of the fuel heater. Warm oil passes through the heater continuously.
Note: Fuel heater was removed from type design by TDC ZTN 001, TDC ZKB 53 210 and TDC ZKB 53 689 for the airplanes manufactured after August 12/2009.
- JAR 25.1305 (e) (3) Each propeller blade position below the minimum flight pitch is indicated.
- JAR 25.1326 (a) Operation of the pitot heating system is indicated by a green light. When the system is not operating, for any reason, the green light extinguishes.
- JAR 25.1337 (a) (2) Instrument lines and hoses have 4 mm inner diameter, which reduces the risk of escape of excessive fluid if the line fails.
- JAR 25.1435 (a) (2) A means to indicate hydraulic fluid quantity is not installed. The hydraulic system is a closed circuit, which is not connected with the atmosphere. Hydraulic fluid leakage could only occur in the event of a failure of some system component. In such a case a separate emergency system can be used.

5. Deviations

None

6. Equivalent Safety Findings

For those exemptions specified in item 4 above appropriate measures were accepted showing, as a minimum, the same level of safety. These measures form parts of the certification data.

7. Environmental Protection

L16/I, Part II, Chapter 10

8. Operational Suitability Certification Basis

MMEL: CS-MMEL, Initial Issue

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Specification sheet B 500 202 N – L 410 UVP-E9

2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.

4. Dimensions

Wingspan	19.980 m	with wing tip tanks
	19.479 m	without wing tip tanks
Length	14.467 m	
Height	5.829 m	
Wing Area	35.18 m ²	with wing tip tanks
	34.86 m ²	without wing tip tanks

5. Engines

2

5.1.1 Model	M601E
5.1.2 Type Certificate	EASA.E.070 (replacing 89-03, CAA CZ issued)
5.1.3 Limitations	

Maximum continuous power rating:

Maximum power 560 kW



	Max. gas generator speed	100.5	%
	Max. propeller speed	2080	rpm
	Max. ITT	760	°C
Take-off power rating:			
	Maximum power	560	kW
	Max. gas generator speed	100	%
	Max. propeller speed	2080	rpm
	Max. ITT	735	°C
Take-off power rating with water injection:			
	Maximum power	560	kW
	Max. gas generator speed	100	%
	Max. propeller speed	2080	rpm
	Max. ITT	735	°C
Contingency power rating:			
	Maximum power	595	kW
	Max. gas generator speed	102	%
	Max. propeller speed	2080	rpm
	Max. ITT	780	°C

Or

5.2.1 Model	M601E-21
5.2.2 Type Certificate	EASA.E.070 (replacing 89-03, CAA CZ issued)
5.2.3 Limitations	

Maximum continuous power rating:			
	Maximum power	560	kW
	Max. gas generator speed	100.5	%
	Max. propeller speed	2080	rpm
	Max. ITT	760	°C
Take-off power rating:			
	Maximum power	560	kW
	Max. gas generator speed	100	%
	Max. propeller speed	2080	rpm
	Max. ITT	735	°C
Take-off power rating with water injection:			
	Maximum power	560	kW
	Max. gas generator speed	100	%
	Max. propeller speed	2080	rpm
	Max. ITT	735	°C
Contingency power rating:			
	Maximum power	595	kW
	Max. gas generator speed	102	%
	Max. propeller speed	2080	rpm
	Max. ITT	780	°C

6. Load factors

Maximum positive limit load factor

-with wing flaps extended 2.0



		-with wing flaps retracted	3.1	
	Maximum negative limit load factor		-1.0	
7. Propeller				
		2		
	7.1 Model	V 510		
	7.1.1 Type Certificate	EASA.P.028 (replacing 91-01, CAA CZ issued)		
	7.1.2 Number of blades	5		
	7.1.3 Diameter	2300 mm		
	7.1.4 Sense of Rotation	Clockwise in view of flight direction		
8. Fluids				
	8.1 Fuel	See AIRPLANE FLIGHT MANUAL, Section II LIMITATIONS and Section VII HANDLING, SERVICING & MAINTENANCE		
	8.2 Oil	See applicable engine Operation Manual		
9. Fluid capacities				
9.1 Fuel	Standard tank	Total	1000	kg
		Usable	991	kg
	Wing tip tanks	Total	314	kg
		Usable	310	kg
9.2 Oil	In onew engine	Maximum	11	litre
		Minimum	5.5	litre
10. Air Speeds				
	Maximum operating speed	V _{MO}	335	km/h IAS
	Maximum flaps extended speed, landing configuration 42°	V _{FE}	220	km/h IAS
	Maximum flaps extended speed, take-off configuration 18°	V _{FE}	250	km/h IAS
	Manouvering speed	V _A	260	km/h IAS
	Maximum landing gear operating speed	V _{LO}	250	km/h IAS
	Maximum landing gear extended speed	V _{LE}	250	km/h IAS
	Maximum spoiler operating speed	V _{SP}	190	km/h IAS
	Minimum control speed on ground	V _{MCG}	130	km/h IAS
	Minimum control speed, take-off	V _{MCA}	135	km/h IAS
	Minimum control speed during landing approach	V _{MCL}	135	km/h IAS
11. Maximum Operating Altitude				
		4250	m	
12. Approved Operations Capability				
	The aircraft is approved for Day and Night VFR and IFR flights.			
	The aircraft is approved for flights in condition of low and mean icing conditions at temperatures not lower than -20 °C.			
13. Maximum Weight				
	Maximum taxiing weight		6620	kg
	Maximum take-off weight		6600	kg
	Maximum landing weight		6400	kg
	Maximum landing weight in exceptional cases		6600	kg
	Maximum zero-fuel weight		5870	kg



14. Centre of Gravity Range

Forward c.g. limit	17	% MAC
Aft c.g. limit	30	% MAC

15. Datum

Datum point is the levelling point No. 2 on the fuselage, located 2.730 m aft of the fuselage nose tip.

16. Control surface deflections

Elevator	up	30°±1°
	down	14°+1°
Rudder	left and right	17°-30'
Aileron	up	27°±1°
	down	14°±1°
Wing flap inner	take-off position	18°
	landing position	52°±1°30'
Wing flap outer	take-off position	18°±1°
	landing position	42°±1°
Left aileron trim tab	up	20°±2°
	down	20°±2°
Elevator trim tab	up	10°±1°
	down	16°±1°
Rudder trim tab	left	10°-1°
	right	10°-1°30'
Maximum spoiler deflection, up		72°30'±2°
Maximum ABC tab deflection, up		55°±2°

17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19L and 19P.

18. Minimum Flight Crew

2

19. Maximum Passenger Seating Capacity

19

20. Baggage/ Cargo Compartments

Maximum baggage load - forward baggage compartment	140	kg
Maximum baggage load - aft baggage compartment	150	kg

21. Wheels and Tyres

Nose wheel K21-6000-7, tyre 9.00-6(550 x 225) M4	or	9.00-6/906 TO6 GoodYear
Main wheel K20-6100-7, tyre 12.50-10(720 x 310) M4	or	29x11,0-10/110TO1-1 GoodYear

D.IV. Operating and Service Instructions

1. Flight Manual

Do-L410.1213.2 Airplane Flight Manual for the L 410 UVP-E9 Aeroplane

2. Maintenance Manual

2.1 Maintenance Schedule:

Do-L410-1225.2 Maintenance Schedule for the L 410 UVP-E9 Aeroplane without overhaul



Do-L410-1225.0	Předpis pro údržbu letounu L-410 UVP-E9 bez GO
Do-L410-1227.2	Maintenance Schedule for the L 410 UVP-E9 Aeroplane without overhaul with 100 FH check
2.2 Maintenance Manual:	
Do-L410-1232.2	Maintenance Manual for the L 410 UVP-E Aeroplane L-410 UVP-E9 Aeroplane, L410 UVP-E20 Aeroplane
Do-L410-1232.0	Provozně technická příručka pro letoun L410 UVP-E, letoun L410 UVP-E9, letoun L410 UVP-E20
2.3 Album of Production, Operation and Repair Tolerances:	
Do-L410-2031.2	Album of Production, Operation and Repair Tolerances of the L410 UVP-E, -E9, -E20 Airplane
Do-L410-2031.0	Album výrobních, provozních a opravárenských tolerancí letounu L-410 UVP-E, -E9, -E20
2.4 Aging aircraft program:	
Do-L410-1229.2	Aging aircraft program for the L 410 M aeroplane, L 410 UVP aeroplane, L 410 UVP-E aeroplane, L 410 UVP-E9 aeroplane, L 410 UVP-E20 aeroplane, L-420 aeroplane
Do-L410-1229.0	Příručka pro kontrolu letounů starších 20 let pro typy L 410 M, L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420
3. Structural Repair Manual	
Do-L410-2021.2	Airframe Repair Manual L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20 Aeroplane
4. Illustrated Parts Catalogue	
Do-L410-2051.2	E-IPC – Electronic illustrated parts catalog L410 UVP-E, E9, E20
5. Other	
5.1 Wiring manual:	
Do-L410-1242.2	Wiring Manual for the L 410 UVP-E Aeroplane, L 410 UVP-E9 Aeroplane, L 410 UVP-E20 Aeroplane
Do-L410-1242.0	Album elektroschemat pro letoun L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20
5.2 Inspection manual:	
Do-L410-2011.2	Inspection Manual for the L 410 UVP-E Airplane, L 410 UVP-E9 Airplane, L 410 UVP-E20 Airplane
Do-L410-2011.0	Příručka pro revizi letounu L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20
6. Operational Suitability Data	
Master Minimum Equipment List (MMEL)	
Do-L410-3000.2	Master Minimum Equipment List L410 UVP-E, E9, E20

D.V. Notes

1. This model was originally approved by CAA Czech under Type Certificate No. 88-01 on March 22, 1988.
2. The permission for continuous operation of each listed S/N aircraft within EU member states after 1 July 2010 will be granted based on condition that essential safety modifications are carried out on the aircraft in accordance with the Service Bulletin L-410 UVP-E/231b as mandated by EASA Airworthiness Directive 2008-0105. Aircraft that comply with Part A and Part B of Service Bulletin L-410 UVP-E/231b will be without any additional operation limitations. Aircraft that only comply with Part B of Service



Bulletin L-410 UVP-E/231b will be restricted to transport of maximum 9 passengers or to Para trooping purposes.

3. Eligible Serial Numbers

882039, 882040, 912619, 912620, 912627, 922701, 922702, 942703, 952623, 962632, 962633, 962704, 962715, 012638, 022634.

Other Serial Numbers are eligible as L 410 UVP-E9 model after rebuilding according to Service Bulletin L410UVP-E/095b recorded in an Airplane Log Book.



SECTION E: L-410 UVP-E20

E.I. General

1. Type/ Model/ Variant

- 1.1 Type: L-410
1.2 Model: L 410 UVP-E20
L 410 UVP-E20 CARGO
1.3 Variant: ----

2. Airworthiness Category

Commuter

3. Manufacturer

LET, n.p.	LET, a.s.	LETECKÉ ZÁVODY, a.s.	Aircraft Industries, a.s.
686 04 Kunovice 1177	686 04 Kunovice 1177	686 04 Kunovice,	686 04 Kunovice,
CZECHOSLOVAKIA	CZECHOSLOVAKIA /	Na Záhonech 1177	Na Záhonech 1177
	CZECH REPUBLIC	CZECH REPUBLIC	CZECH REPUBLIC

4. State of Design Authority Type Certificate Date

October 30, 1990

5. State of Design Authority Type Certificate Data Sheet

CAA CZ, 71-04

6. EASA Type Certification Date

March 28, 2007

E.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

February 1, 1988

2. Airworthiness Requirements

14 CFR Part 23 at Amdt. 34

3. Special Conditions

None

4. Exemptions

List of FAR-23 requirements for which exemptions have been approved:

- FAR 23.677 (a) For the aileron trim tab the neutral position is only enunciated. The Aeroplane Flight Manual requires that the neutral position must be checked before taxiing-out for take-off.
- FAR 23.1305 (v) There is no indication of proper functioning of the fuel heater. The heater operates automatically, there are no pilot-operated controls. A malfunction of the heater will not result in an emergency. A check of correct functioning of the fuel heater is required by the Maintenance Schedule after 300 flight hours.
- Note: Fuel heater was removed from type design by TDC ZTN 001, TDC ZKB 53 210 and TDC ZKB 53 689 for the airplanes manufactured after August 12/2009.
- FAR 23.1307 (b) (1) There is a separate switch for each electrical power source (2 storage batteries, 4 generators). These 6 switches are located next to each other on the overhead panel. This arrangement allows the switches to be switched off almost simultaneously. This arrangement prevents the possibility of a loss of all electrical power sources in the event of one master switch failure. Note: This exemption does not apply for aircraft since s/n 3011 inclusive and for the aircraft with the Master Switch arrangement installed iaw. Aircraft Industries Information Bulletin L410UVP-E/413b.



5. Deviations

None

6. Equivalent Safety Findings

For those exemptions specified in item 4 above appropriate measures were accepted showing, as a minimum, the same level of safety. These measures form parts of the certification data.

7. Environmental Protection

L16/I, Part II, Chapter 10

8. Operational Suitability Certification Basis

MMEL: CS-MMEL, Initial Issue

Flight Crew Data (FCD): CS-FCD, Initial Issue

E.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Specification sheet B 500 245 N – L 410 UVP-E20

2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.

4. Dimensions

Wingspan	19.980 m	with wing tip tanks
	19.479 m	without wing tip tanks
Length	14.467 m	
Height	5.829 m	
Wing Area	35.18 m ²	with wing tip tanks
	34.86 m ²	without wing tip tanks

5. Engines

2

5.1.1 Model

M601E

5.1.2 Type Certificate

EASA.E.070 (replacing 89-03, CAA CZ issued)

5.1.3 Limitations

Maximum continuous power rating:

Maximum power	560	kW
Max. gas generator speed	100.5	%
Max. propeller speed	2080	rpm
Max. ITT	760	°C

Take-off power rating:

Maximum power	560	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Take-off power rating with water injection:

Maximum power	560	kW
Max. gas generator speed	100	%



Max. propeller speed	2080	rpm
Max. ITT	735	°C
Contingency power rating:		
Maximum power	595	kW
Max. gas generator speed	102	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C

Or

5.2.1 Model	M601E-21
5.2.2 Type Certificate	EASA.E.070 (replacing 89-03, CAA CZ issued)
5.2.3 Limitations	

Maximum continuous power rating:		
Maximum power	560	kW
Max. gas generator speed	100.5	%
Max. propeller speed	2080	rpm
Max. ITT	760	°C
Take-off power rating:		
Maximum power	560	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C
Take-off power rating with water injection:		
Maximum power	560	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C
Contingency power rating:		
Maximum power	595	kW
Max. gas generator speed	102	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C

Or

5.3.1 Model	H80-200
5.3.2 Type Certificate	EASA.E.070
5.3.3 Limitations	

Maximum continuous power rating:		
Maximum power	522	kW
Max. gas generator speed	98.4	%
Max. propeller speed	1700-2080	rpm
Max. ITT	720	°C
Take-off power rating:		
Maximum power	597	kW
Max. gas generator speed	101.5	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C



Continuous OEI power rating:

Maximum power	597	kW
Max. gas generator speed	101.5	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C

6. Load factors

Maximum positive limit load factor

-with wing flaps extended	2.0
-with wing flaps retracted	3.1

Maximum negative limit load factor

-1.24

7. Propeller

2

7.1 Model

V 510 (only for M601E and M601E-21 engine)

7.1.1 Type Certificate

EASA.P.028 (replacing 91-01, CAA CZ issued)

7.1.2 Number of blades

5

7.1.3 Diameter

2300 mm

7.1.4 Sense of Rotation

Clockwise in view of flight direction

Or

7.2 Model

AV-725-1 (only for H80-200 engine)

7.2.1 Type Certificate

EASA.P.029 (replacing 89-04, CAA CZ issued)

7.2.2 Number of blades

5

7.2.3 Diameter

2300 mm

7.1.4 Sense of Rotation

Clockwise in view of flight direction

8. Fluids

8.1 Fuel

See AIRPLANE FLIGHT MANUAL, Section II LIMITATIONS and Section VII HANDLING, SERVICING & MAINTENANCE

8.2 Oil

See applicable engine Operation Manual

9. Fluid capacities

9.1 Fuel	Standard tank	Total	2204	lb	(1000	kg)	
		Usable	2184	lb	(991	kg)	
		Wing tip tanks	Total	692	lb	(313.8	kg)
			Usable	684	lb	(310	kg)
9.2 Oil	In one engine	Maximum			11	litre	
		Minimum			5.5	litre	

10. Air Speeds

Airplane with M601E/M601E-21 engines and V-510 propellers:

Maximum operating speed	V_{MO}	181	KIAS	(335	km/h IAS)
Design manoeuvring speed	V_A	143	KIAS	(265	km/h IAS)
Design speed for maximum gust intensity	V_B	143	KIAS	(265	km/h IAS)
Maximum landing gear operating speed	V_{LO}	135	KIAS	(250	km/h IAS)
Maximum landing gear extended speed	V_{LE}	135	KIAS	(250	km/h IAS)
Maximum flaps extended speed / operating speed					
-take-off configuration 18°	$V_{FE/V_{FO}}$	135	KIAS	(250	km/h IAS)
-landing configuration 42°	$V_{FE/V_{FO}}$	119	KIAS	(220	km/h IAS)



Maximum permissible spoiler extension speed	V _{SPOIL}	102	KIAS	(190	km/h IAS)
Minimum control speed					
-for take-off run	V _{MCG}	70	KIAS	(130	km/h IAS)
-for take-off	V _{MCA}	73	KIAS	(135	km/h IAS)
-for landing	V _{MCL}	73	KIAS	(135	km/h IAS)
Minimum take-off safety speed					
-flaps in 0° position	V ₂	94	KIAS	(175	km/h IAS)
-flaps in 18° position	V ₂	84	KIAS	(155	km/h IAS)
Airplane with H80-200 engines and AV-725-1 propellers:					
Maximum operating limit speed	V _{MO}	181	KIAS	(335	km/h IAS)
Operating manouvering speed	V _O	143	KIAS	(265	km/h IAS)
Design speed for maximum gust intensity	V _B	143	KIAS	(265	km/h IAS)
Maximum landing gear operating speed	V _{LO}	135	KIAS	(250	km/h IAS)
Maximum landing gear extended speed	V _{LE}	135	KIAS	(250	km/h IAS)
Maximum flaps extended speed / operating speed					
-take-off configuration 18°	V _{FE/VFO}	135	KIAS	(250	km/h IAS)
-landing configuration 42°	V _{FE/VFO}	119	KIAS	(220	km/h IAS)
Maximum permissible spoiler extension speed	V _{SPOIL}	102	KIAS	(190	km/h IAS)
Minimum control speed					
-for take-off run (flaps 0° or 18°)	V _{MCG}	60	KIAS	(111	km/h IAS)
-for take-off, flaps 18°	V _{MCA}	65	KIAS	(121	km/h IAS)
- for take-off, flaps 0°	V _{MCL}	77	KIAS	(143	km/h IAS)
-for landing	V _{MCL}	65	KIAS	(121	km/h IAS)
Minimum take-off safety speed	V ₂	variable, determine it from appropriate graph in Section 5 of AFM			
Safe, intentional, one-engine-inoperative speed	V _{SSE}	same as v ₂			

11. Maximum Operating Altitude

14000	ft	(4250	m)
20 000	ft	(6100	m) for specific design configuration

12. Approved Operations Capability

The aircraft is approved for Day and Night VFR and IFR flights.
The aircraft is approved for intended flights in icing conditions.

13. Maximum Weight

Maximum ramp weight	14594	lb	(6620	kg)
Maximum take-off weight	14550	lb	(6600	kg)
Maximum landing weight	14109	lb	(6400	kg)
Maximum landing weight in exceptional cases	14550	lb	(6600	kg)
Maximum zero-fuel weight				
-without wing-tip tanks	13227	lb	(6000	kg)
-with wing-tip tanks	13360	lb	(6060	kg)

14. Centre of Gravity Range

Forward c.g. limit	19	% MAC
Aft c.g. limit	30	% MAC



15. Datum

Datum point is the levelling point No. 2 (LP2) on the fuselage, located 2.730 m aft of the fuselage nose tip.

16. Control surface deflections

Elevator	up	30°±1°
	down	14°+1°
Rudder	left and right	17°-30'
	Aileron	up
Wing flap inner	down	14°±1°
	take-off position	18°
Wing flap outer	landing position	52°±1°30'
	take-off position	18°±1°
Left aileron trim tab	landing position	42°±1°
	up	20°±2°
Elevator trim tab	down	20°±2°
	up	10°±1°
Rudder trim tab	down	16°±1°
	left	10°-1°
Maximum spoiler deflection, up	right	10°-1°30'
		72°30'±2°
Maximum ABC tab deflection, up		55°±2°

17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19L and 19P.

18. Minimum Flight Crew

2

19. Maximum Passenger Seating Capacity

19	L 410 UVP-E20
0	L 410 UVP-E20 CARGO

20. Baggage/ Cargo Compartments

L 410 UVP-E20 with passengers:

Max. load in baggage compartment-rear	330	lb	(150	kg)
Max. load in baggage compartment-front	220	lb	(100	kg)

L 410 UVP-E20 CARGO

Max. baggage load-forward baggage compartment	100	kg
Max. baggage load-aft baggage compartment	150	kg
Cargo compartment	1700	kg

21. Wheels and Tyres

Nose wheel K21-6000-7, tyre 9.00-6(550 x 225) M4	or	9.00-6/906 TO6-1 GoodYear
Main wheel K20-6100-7, tyre 12.50-10(720 x 310) M4	or	29x11,0-10/11OTO1-1 GoodYear

E.IV. Operating and Service Instructions

1. Flight Manual

For aircraft with M601E or M601E-21 engines and V 510 propellers

Do-L410.1214.2

Airplane Flight Manual for the L 410 UVP-E20



Do-L410.1214.0	Letová příručka pro letoun L 410 UVP-E20 For aircraft with H80-200 engines and AV-725 propellers:
Do-L410-1218.2	Airplane Flight Manual for the L-410 UVP-E20 with H80-200 Engines and AV-725 Propellers

2. Maintenance Manual

2.1 Maintenance Schedule:

Do-L410-1223.2	Maintenance Schedule for the L 410 UVP-E20 Aeroplane without overhaul with 100 FH check
Supplement No. 59 to the Maintenance Schedule Do-L410-1223.2 is issued for L 410 UVP-E20 with GE H80-200 engines and AV-725 propellers.	
Do-L410-1223.0	Předpis pro údržbu letounu L 410 UVP-E20 bez GO se 100 hod. prohlídkou

2.2 Maintenance Manual:

Do-L410-1232.2	Maintenance Manual for the L 410 UVP-E Aeroplane L-410 UVP-E9 Aeroplane, L410 UVP-E20 Aeroplane
Supplement No. 210 to the Maintenance Manual for the L-410 UVP-E Aeroplane, L 410 UVP- E9 Aeroplane, L 410 UVP-E20 Aeroplane Do-L410-1232.2 is issued for L 410 UVP-E20 with GE H80-200 engines and AV-725 propellers	
Do-L410-1232.0	Provozně technická příručka pro letoun L410 UVP-E, letoun L410 UVP-E9, letoun L410 UVP-E20

2.3 Album of Production, Operation and Repair Tolerances:

Do-L410-2031.2	Album of Production, Operation and Repair Tolerances of the L410 UVP-E, -E9, -E20 Airplane
Do-L410-2031.0	Album výrobních, provozních a opravárenských tolerancí letounu L-410 UVP-E, -E9, -E20

2.4 Aging aircraft program:

Do-L410-1229.2	Aging aircraft program for the L 410 M aeroplane, L 410 UVP aeroplane, L 410 UVP-E aeroplane, L 410 UVP-E9 aeroplane, L 410 UVP-E20 aeroplane, L-420 aeroplane
Do-L410-1229.0	Příručka pro kontrolu letounů starších 20 let pro typy L 410 M, L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420

3. Structural Repair Manual

Do-L410-2021.2	Airframe Repair Manual L-410 UVP, L-410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420 Airplane
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4. Illustrated Parts Catalogue

Do-L410-2051.2	E-IPC – Electronic illustrated parts catalog L410 UVP-E, E9, E20
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5. Other

5.1 Wiring manual:

Do-L410-1242.2	Wiring Manual for the L-410 UVP-E Aeroplane, L 410 UVP-E9 Aeroplane, L 410 UVP-E20 Aeroplane
The supplement No. 210 to the Wiring Manual for the L 410 UVP-E Aeroplane, L 410 UVP-E9 Aeroplane, L 410 UVP-E20 Aeroplane Do-L410-1242.2 is issued for L 410 UVP-E20 with GE H80-200 engines and AV-725 propellers	
Do-L410-1242.0	Album elektroschemat pro letoun L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20



5.2 Inspection manual:

Do-L410-2011.2	Inspection Manual for the L 410 UVP-E Airplane, L 410 UVP-E9 Airplane, L 410 UVP-E20 Airplane
Do-L410-2011.0	Příručka pro revizi letounu L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20

6. Operational Suitability Data

Master Minimum Equipment List (MMEL)

Do-L410-3000.2 Master Minimum Equipment List L410 UVP-E, E9, E20

Flight Crew Data

L410-FCO Operational Suitability Data, Flight Crew Data
L 410 UVP-E20 and L 410 NG

E.V. Notes

1. This model was originally approved by CAA Czech under Type Certificate No. 90-03 on October 30, 1990.
2. The data in this TCDS where there is no reference to the specific model of the aircraft stated, refer to both L 410 UVP-E20 and L 410 UVP-E20 CARGO.
3. L 410 UVP-E20 model with the "R" included in the Serial number, i.e. RBBNN, where BB is a batch number and NN is a number of an aircraft in the batch, are manufactured in Russian Federation. Those Serial Numbers are not eligible for registration in the EU Member States.
4. Eligible Serial Numbers
912603, 912604, 912611, 912613, 912617, 922710, 922711, 922726, 922728, 942705 through 942707, 952708, 962709, 972730, 972731, 982631, 982727, 992736, 062636, 062637, 072621, 072639, 072640, 082629, 082630, 082712, 082714, 092628, 092610, 092622, 092635, 092713, 092716 through 092718, 2719 through 2725, 2732 through 2734, 2737 through 2740, 2801 through 2819, 2901 through 2920, 3001 and subsequent higher Serial Numbers except S/N in format RBBNN, see note 3.

Other Serial Numbers are eligible for the L410 UVP-E20 model after rebuilding according to Service Bulletin L410UVP-E/094b recorded in an Aircraft Log Book.

Other Serial Numbers are eligible for the L410 UVP-E20 CARGO model after rebuilding according to Service Bulletin L410UVP-E/221b recorded in an Aircraft Log Book



SECTION F: L-420

F.I. General

1. Type/ Model/ Variant

1.1 Type:	L-410
1.2 Model:	L-420
1.3 Variant:	----

2. Airworthiness Category

Commuter

3. Manufacturer

LET, a.s. 686 04 Kunovice 1177 CZECHOSLOVAKIA / CZECH REPUBLIC	LETECKÉ ZÁVODY, a.s. 686 04 Kunovice, Na Záhonech 1177 CZECH REPUBLIC	Aircraft Industries, a.s. 686 04 Kunovice, Na Záhonech 1177 CZECH REPUBLIC
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4. State of Design Authority Type Certificate Date

March 11, 1998

5. State of Design Authority Type Certificate Data Sheet

CAA CZ, 71-04

6. EASA Type Certification Date

August 19, 2005

F.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

N/A

2. Airworthiness Requirements

14 CFR Part 23 at Amdt. 41

3. Special Conditions

None

4. Exemptions

None

5. Deviations

None

6. Equivalent Safety Findings

None

7. Environmental Protection

L16/I, Part II, Chapter 10 FAR Part 36

F.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Specification sheet B 500 300 N – L-420



2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.

4. Dimensions

Wingspan	19.980 m	with wing tip tanks
	19.479 m	without wing tip tanks
Length	14.424 m	
Height	5.829 m	
Wing Area	35.18 m ²	with wing tip tanks
	34.86 m ²	without wing tip tanks

5. Engines

2

5.1.1 Model M601F

5.1.2 Type Certificate EASA.E.070 (replacing 89-03, CAA CZ issued)

5.1.3 Limitations

Maximum continuous power rating:

Maximum power	580	kW
Max. gas generator speed	100.5	%
Max. propeller speed	2080	rpm
Max. ITT	760	°C

Take-off power rating:

Maximum power	580	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Take-off power rating with water injection:

Maximum power	580	kW
Max. gas generator speed	100	%
Max. propeller speed	2080	rpm
Max. ITT	735	°C

Maximum take-off power rating:

Maximum power	595	kW
Max. gas generator speed	102	%
Max. propeller speed	2080	rpm
Max. ITT	780	°C

6. Load factors

Maximum positive limit load factor

-with wing flaps extended	2.0
-with wing flaps retracted	3.1

Maximum negative limit load factor -1.24



7. Propeller

	2
Model	V 510
	Propeller designation system: V 510/90A/C
Type Certificate	EASA.P.028 (replacing 91-01, CAA CZ issued)
Number of blades	5
Diameter	2300 mm
Sense of Rotation	Clockwise in view of flight direction

8. Fluids

8.1 Fuel See AIRPLANE FLIGHT MANUAL, Section II LIMITATIONS and Section VII HANDLING, SERVICING & MAINTENANCE

8.2 Oil See applicable engine Operation Manual

9. Fluid capacities

9.1 Fuel	Standard tank	Total	1000	kg
		Usable	991	kg
	Wing tip tanks	Total	313.8	kg
		Usable	305.8	kg
9.2 Oil	In one engine	Maximum	11	litre
		Minimum	5.5	litre

10. Air Speeds

Maximum operating speed	V_{MO}	375	km/h IAS
Maximum flaps extended speed, landing configuration 42°	V_{FE}	210	km/h IAS
Maximum flaps extended speed, take-off configuration 18°	V_{FE}	297	km/h IAS
Design manoeuvring speed	V_A	273	km/h IAS
Maximum landing gear operating speed	V_{LO}	297	km/h IAS
Maximum landing gear extended speed	V_{LE}	297	km/h IAS

11. Maximum Operating Altitude

20000 ft (6100 m)

12. Approved Operations Capability

The aircraft is approved for Day and Night VFR and IFR flights.

The aircraft is approved for intended flights in icing conditions.

13. Maximum Weight

Maximum ramp weight	6620	kg
Maximum take-off weight	6600	kg
Maximum landing weight	6400	kg

14. Centre of Gravity Range

Forward c.g. limit	19	% MAC
Aft c.g. limit	30	% MAC

15. Datum

Datum point is the levelling point No. 2 (LP2) on the fuselage, located 2.730 m aft of the fuselage nose tip.



16. Control surface deflections

Elevator	up	30°±1°
	down	14°+1°
Rudder	left and right	17°-30'
Aileron	up	27°±1°
	down	14°±1°
Wing flap inner	take-off position	18°
	landing position	52°±1°30'
Wing flap outer	take-off position	18°±1°
	landing position	42°±1°
Left aileron trim tab	up	20°±2°
	down	20°±2°
Elevator trim tab	up	10°±1°
	down	16°±1°
Rudder trim tab	left	10°-1°
	right	10°-1°30'
Maximum spoiler deflection, up		72°30'±2°
Maximum ABC tab deflection, up		55°±2°

17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19L and 19P.

18. Minimum Flight Crew

2

19. Maximum Passenger Seating Capacity

19

20. Baggage/ Cargo Compartments

Maximum baggage load - forward baggage compartment	140	kg
Maximum baggage load - aft baggage compartment	150	kg

21. Wheels and Tyres

Nose wheel K21-6000-7, tyre 9.00-6(550 x 225) M4	or	9.00-6/906 TO6-1 GoodYear
Main wheel K20-6100-7, tyre 12.50-10(720 x 310) M4	or	29x11,0-10/11OTO1-1 GoodYear

F.IV. Operating and Service Instructions

1. Flight Manual

Do-L410.1311.2	Airplane Flight Manual for the Airplane Model L-420
Do-L410-1311.0	Letová příručka pro letoun L 420

2. Maintenance Manual

2.1 Maintenance Schedule:

Do-L420-1224.2	Maintenance Schedule for the L-420 Aeroplane
Do-L420-1224.0	Předpis pro údržbu letounu L-420

2.2 Maintenance Manual:

Do-L410-1233.2	Maintenance Manual for the L-420 Aeroplane
Do-L410-1233.0	Provozně technická příručka pro letoun L-420



2.3 Album of Production, Operation and Repair Tolerances:

Do-L420-1231.2	Album of Production, Operation and Repair Tolerances of the L 420 Aeroplane
Do-L420-1231.0	Album výrobních, provozních a opravárenských tolerancí L-420

2.4 Aging aircraft program:

Do-L410-1229.2	Aging aircraft program for the L 410 M aeroplane, L 410 UVP aeroplane, L 410 UVP-E aeroplane, L 410 UVP-E9 aeroplane, L 410 UVP-E20 aeroplane, L-420 aeroplane
Do-L410-1229.0	Příručka pro kontrolu letounů starších 20 let pro typy L 410 M, L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420

3. Structural Repair Manual

Do-L410-2021.2	Airframe Repair Manual L 410 UVP, L 410 UVP-E, L 410 UVP-E9, L 410 UVP-E20, L-420 Airplane
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4. Illustrated Parts Catalogue

Do-L410-2052.2	Illustrated Parts Catalogue for the L-420 Aeroplane
Do-L410-2052.0	Katalog dílů a montážních jednotek pro letoun L-420

5. Other

5.1 Wiring manual:

Do-L410-1243.2	Wiring Manual for the L-420 Aeroplane
Do-L410-1243.0	Album elektroschemat pro letoun L-420

6. Operational Suitability Data

Master Minimum Equipment List (MMEL)	
Do-L410-1312.2	Master Minimum Equipment List and Configuration Deviation List for the Airplane Model L-420

F.V. Notes

1. This model was originally approved by CAA Czech under Type Certificate No. 98-01 on March 11, 1998.
2. Eligible Serial Numbers:
922729A, 012735A



SECTION G: L 410 NG

G.I. General

1. Type/ Model/ Variant

- 1.1 Type: L-410
1.2 Model: L 410 NG
1.3 Variant: ----

2. Airworthiness Category

Commuter

3. Manufacturer

Aircraft Industries, a.s.
686 04 Kunovice, Na Záhonech 1177
CZECH REPUBLIC

4. State of Design Authority Type Certificate Date

N/A

5. State of Design Authority Type Certificate Data Sheet

N/A

6. EASA Type Certification Date

EASA, 19. December 2017

G.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

30 December 2014

2. Airworthiness Requirements

CS-23, incl. Amdt. 4 and FAR-23, incl. Amdt. 41
CS-ACNS, Initial Issue

Requirements elected to comply: CS-MCSD-001, Certification Memoranda, Issue 01

The L 410 NG model is a derivative of the L 410 UVP-E20 model at FAR 23 Amdt. 41 as a baseline product.

L 410 NG type design certification basis as is stated in CRI A-01 consists of:

- CS 23, Amendment 4 has been used for changed areas by significant change to type design according to 21.A.101(a) or Secondary change according to 21.A.101(b)(3) or Supplementary change according to 21.A.101(b)(1), with the exceptions listed below. See NOTE 3 for more detailed description.
 - FAR-23, Amendment 41: 23.1, 23.29, 23.143, 23.171, 23.173, 23.231, 23.303, 23.307, 23.333, 23.345, 23.363, 23.367, 23.391, 23.395, 23.397, 23.399, 23.405, 23.407, 23.409, 23.457, 23.459, 23.471, 23.481, 23.483, 23.493, 23.507, 23.509, 23.601, 23.603, 23.605, 23.609, 23.619, 23.625, 23.627, 23.641, 23.651, 23.671, 23.681, 23.683, 23.685, 23.693, 23.699, 23.726, 23.727, 23.771, 23.954, 23.969, 23.994, 23.995, 23.1093, 23.1111, 23.1149, 23.1182, 23.1327, 23.1335, 23.1367, 23.1381, 23.1419, 23.1501, 23.1513, 23.1519, 23.1523, 23.1524, 23.1529, 23.1541, 23.1547.
 - FAR-23, Amendment 42: 23.331, 23.351, 23.421, 23.423, 23.425, 23.427, 23.939.
 - FAR-23, Amendment 43: 23.937, 23.943, 23.951, 23.953, 23.957, 23.961, 23.967, 23.971, 23.977, 23.991, 23.993, 23.997, 23.999, 23.1011, 23.1189, 23.1322, 23.1357.



- FAR-23, Amendment 45: 23.23, 23.141, 23.305, 23.321, 23.361, 23.479, 23.485, 23.613, 23.655, 23.672, 23.731, 23.733, 23.773, 23.851, 23.1507, 23.1525, 23.1527, 23.1549, 23.1557.
- FAR-23, Amendment 48: 23.301, 23.335, 23.337, 23.341, 23.343, 23.347, 23.349, 23.371, 23.393, 23.415, 23.441, 23.443, 23.455, 23.473, 23.499, 23.572, 23.573, 23.574, 23.575, 23.607, 23.611, 23.657, 23.725, 23.865.
- FAR-23, Amendment 49: 23.677, 23.723, 23.729, 23.745, 23.787, 23.791, 23.855, 23.867, 23.1307, 23.1321, 23.1326, 23.1329, 23.1351, 23.1359, 23.1361, 23.1365, 23.1435.
- FAR-23, Amendment 50: 23.25, 23.69, 23.75, 23.145, 23.147, 23.149, 23.153, 23.155, 23.157, 23.161, 23.175, 23.207, 23.233, 23.235, 23.1325, 23.1511, 23.1521, 23.1543, 23.1553, 23.1581, 23.1589
- FAR-23, Amendment 51: 23.779, 23.925, 23.929, 23.933, 23.955, 23.959, 23.963, 23.965, 23.973, 23.975, 23.979, 23.1041, 23.1043, 23.1045, 23.1141, 23.1143, 23.1191, 23.1337
- FAR-23, Amendment 52: 23.1305
- FAR-23, Amendment 53: 23.901
- FAR-23, Amendment 57: 23.1308
- FAR-23, Amendment 58: 23.1457, 23.1459
- FAR-23, Amendment 59: 23.905, 23.907
- FAR-23, Amendment 61: 23.1306
- FAR-23, Amendment 41 has been used for not significant areas of the change to type design according to 21.A.101(b)(1) and not affected areas by the change according to 21.A.101(b)(2).
- FAR-23, Amendment 41 has been used for following not affected FAR-23 sections: 23.21, 23.33, 23.373, 23.445, 23.477, 23.623, 23.659, 23.673, 23.675, 23.689, 23.697, 23.701, 23.721, 23.775, 23.781, 23.803, 23.813, 23.815, 23.831, 23.863, 23.871, 23.1013, 23.1015, 23.1017, 23.1019, 23.1021, 23.1023, 23.1027, 23.1091, 23.1103, 23.1105, 23.1121, 23.1123, 23.1145, 23.1153, 23.1155, 23.1163, 23.1165, 23.1183, 23.1193, 23.1195, 23.1197, 23.1199, 23.1201, 23.1203, 23.1383, 23.1384, 23.1387, 23.1389, 23.1391, 23.1393, 23.1395, 23.1397, 23.1401, 23.1411, 23.1415, 23.1437, 23.1438, 23.1449, 23.1461, 23.1551, 23.1561.
- FAR-23, Amendment 43 has been used for following not affected FAR-23 sections: 23.1147, 23.1141.
- FAR-23, Amendment 45 has been used for following not affected FAR-23 sections: 23.655, 23.679, 23.851.
- FAR-23, Amendment 46 has been used for following not affected FAR-23 sections: 23.811.
- FAR-23, Amendment 49 has been used for following not affected FAR-23 sections: 23.783, 23.785.
- FAR-23, Amendment 62 has been used for following not affected FAR-23 sections: 23.807, 23.856.

Changed areas by significant change to type design according to 21.A.101(a)

ATA 08 LEVELING AND WEIGHING

08-10 WEIGHING AND BALANCING

- Increase of MTOM.

ATA 11 PLACARDS AND MARKINGS

11-20 INTERIOR PLACARDS

- Redesigned cockpit.

ATA 21 AIR CONDITIONING

21-60 TEMPERATURE CONTROL

- Installation of automatic temperature control system.
- Installation of new mechanically control shut-off flap and installation of modified temperature transmitters.
- Installation of electromechanical regulation valve.
- Modification of air condition control panel.



ATA 22 AUTO FLIGHT

22-10 AUTOPILOT

- Installation of GFC 700.

ATA 24 ELECTRICAL POWER

24-50 AC ELECTRICAL LOAD DISTRIBUTION

- Removal of 3x36V/400Hz inverters, installation of 1x36V/400 Hz inverter.

24-60 DC ELECTRICAL LOAD DISTRIBUTION

- Modification of output part of electrical energy generating and distribution system.

ATA 25 EQUIPMENT / FURNISHING

25-10 FLIGHT COMPARTMENT

- Installation of modified instrument and control panels and installation of LED lights for lighting of cockpit.

25-60 EMERGENCY

- ELT.

ATA 26 FIRE PROTECTION

26-10 DETECTION

26-20 EXTINGUISHING

- Modification of fire detection and fire extinguishing systems in front baggage compartment.

ATA 27 FLIGHT CONTROLS

27-10 AILERON AND TAB

- Upgraded electromechanical trim actuator with doubled push-pull rods and with internal deflection sensor.

27-20 RUDDER AND TAB

- Upgraded electromechanical trim actuator with doubled push-pull rods and with internal deflection sensor.

27-30 ELEVATOR AND TAB

- Doubled control rods for each RH and LH trim tab.

27-60 SPOILER, DRAG DEVICES AND VARIABLE AERODYNAMIC FAIRINGS

- Ground spoiler can be activated by both members of flight crew.

ATA 28 FUEL

28-10 STORAGE

- Integral fuel tanks.
- Increase of fuel capacity of wing tip tanks.

28-20 DISTRIBUTION

- A completely new distribution system.

28-40 INDICATING

- New fuel quantity measuring system connected to G3000.

ATA 29 HYDRAULIC POWER

29-10 MAIN

- Relocation of hydraulic aggregates on the wing structure and optimization of tubing track.
- Upgrade of hydraulic equipment (ATA 27-Automatic bank control tab actuator, Ground spoiler actuator, Wing flap actuator, ATA 29-Hydraulic tank, Hydraulic accumulator, Hydraulic brake accumulator, Pressure relief valve, emergency / fire valve, Capacitance level gauge, Capacitive level sensor, Hydraulic fluid level indicator, ATA 32-Hydraulic parking brake accumulator, Lock release cylinder, Emergency actuator of the lock, Main landing gear jack-LH/RH, Nose landing



gear jack, Nose wheel steering servo, Pressure transmitter (2500 psi), Pressure transmitter (1000psi)).

29-30 INDICATING

- Quantity of hydraulic fluid in hydraulic tank.
- New pressure sensors for EIS.

ATA 30 ICE AND RAIN PROTECTION

30-10 AIRFOIL

- Modernization of control box.

30-30 PITOT AND STATIC

- Modernization of control and indicating box.

30-30 WINDOWS, WINDSHIELDS, AND DOORS

- Modernization of cockpit windshields heating.

30-80 DETECTION

- Adding RH side static ice detector and ice inspection lights.

ATA 31 INDICATING / RECORDING SYSTEM

31-20 INDEPENDENT / STANDBY INSTRUMENTS

31-30 CENTRAL WARNING / CREW ALERTING

31-40 INTEGRATED DISPLAY SYSTEMS

31-50 CENTRAL WARNING SYSTEMS

31-60 ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)

- Installation of GARMIN G3000 and connected systems (ATA 22–AUTOPILOT, ATA 23–COM(VHF, HF, SATCOM, WiFi, AUDIO), ATA 34-NAV (AHRS/ADC/FMS, GPS, VOR/LOC/GS, MRKR, DME, XPDR, WX, TCAS, TAWS, R-ALT), ATA 77-EIS).
- Installation of standby EFIS.
- CVR/FDR.
- Upgrading of system of measurement of electrical parameters of electrical sources to ensure theirs displaying on EIS.
- Replacement of sensors of engine parameter (ATA 28-Fuel pressure transmitter, ATA 61-Pressure switch of automatic feathering, ATA 76-Torque limiter pressure switch, ATA 77–Torque transmitter, Signalization of pressure oil losing, Integrated speed transmitter of propellers and generators, Compensation line, ATA 79-Oil pressure transmitter, Minimum oil pressure switch).

ATA 32 LANDING GEAR

32-10 MAIN GEAR AND DOORS

- Modified Main landing gear–left/right, modified Main landing gear shock absorber.

32-40 WHEELS AND BRAKES

- Modified Nose landing gear wheel.
- Modified Main landing gear wheel.
- Modified Brake.
- Modified Nose landing gear wheel tire.
- Modified Main landing gear wheel tire.

ATA 34 NAVIGATION

34-10 AIR DATA SYSTEM

- Relocation of static pressure ports and modified installation of pitot tubes.

ATA 53 FUSELAGE

53-10 MAIN FRAME



- Nose part between frames No. 1 to No. 4 is redesigned by extension of nose part about 600mm.

No changes between FR.8 and FR.18, expect of:

- Reinforcement of fuselage rear part by additional stringers. Stringers starts on the frame No. 18 and ended between frames No. 21 and No. 25. Remaining rear part of fuselage is identical with the model L 410 UVP-E20.
- Reinforcement of stringers under floor grids in fuselage middle part.

53-40 ATTACH FITTINGS

- Modification of frames No. 12 and No. 14 in the area of hinges for attachment of the wing.

ATA 55 STABILIZER

55-20 ELEVATOR

- Increase of maximum deflection of elevator trim tab.

ATA 57 WINGS

57-00 GENERAL

- New integral wing design and associated changes (fuel system in wing, electrical wiring routing in wing, piping of de-icing system, aileron control system routing, flap control system routing, ground spoilers control system routing, hydraulic tank relocation and hydraulic pipelines routing).
- Modification of Automatic Bank Control system.

ATA 61 PROPELLERS

61-10 PROPELLER ASSEMBLY

- Modified Propeller.

61-20 CONTROLLING

- Modified Propeller governor.
- Modified Feathering pump.

ATA 71 POWER PLANT

71-20 MOUNTS

- Engine mount material replacement and slight modification.

ATA 72 ENGINE

72-00 GENERAL

- Installation of turboprop engine model H85-200 BC04.

ATA 73 ENGINE – FUEL AND CONTROL

73-20 CONTROLLING - GOVERNING

- Modified Electronic limiter unit (ELU) SALM 601.
- Replacement of current engine and propeller cable control systems by Teleflex.

3. Special Conditions

SC 23.0901-01, issue 2: Rate of Water Ingestion

4. Exemptions

None

5. Deviations

None

6. Equivalent Safety Findings

ELOS-CS23.0777-01-Iss. 1:	Cockpit Controls
ELOS-CS23.0777-02-Iss. 1:	Landing Gear Control Handle Position
ELOS-CS23.1545-01-Iss. 1:	Airspeed Indicator



ELOS-CS23.1305-01-Iss. 1: Powerplant instruments
ELOS-CS23.1303-01-Iss. 1: Magnetic compass

7. Environmental Protection

CS-36, Amendment 3
CS-34, Amendment 1

8. Operational Suitability Certification Basis:

MMEL: CS-MMEL, Initial Issue
Flight Crew Data (FCD)
Flight Crew Data (CS-FCD Initial Issue 31 January 2014).

G.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Refer to TDC-150-E20-CRI-A-05-TR-01
L 410 NG Type design - top drawing No. Y005000N,
The Top Drawing number specifies a configuration of the L 410 NG aircraft produced through Y00xxxxN, where xxxx is the Serial Number of the particular aircraft produced starting with 5001.

2. Description

Self-supporting, upper-wing, all-metal design. Powered by two turboprop engines. Control system is performed for two pilots. Landing gear consists of main and nose landing gear.

3. Equipment

The list of approved equipment is shown in the Maintenance Manual.

4. Dimensions

Wingspan	19.980 m	with wing tip tanks
	19.479 m	without wing tip tanks
Length	15.074 m	
Height	5.969 m	
Wing Area	35.18 m ²	with wing tip tanks
	34.86 m ²	without wing tip tanks

5. Engines

2

5.1.1 Model H85-200 BC04
5.1.2 Type Certificate EASA.E.070
5.1.3 Limitations

Take-off power rating:

Maximum power	634	kW
Max. gas generator speed	101.5	%
Max. propeller speed	1950	rpm
Max. ITT	780	°C

Maximum continuous power rating:

Maximum power	634	kW
Max. gas generator speed	101.2	%
Max. propeller speed	1050	rpm
Max. ITT	770	°C



6. Load factors

Maximum positive limit load factor

-with wing flaps extended	2.0
-with wing flaps retracted	3.0

Maximum negative limit load factor

-with wing flaps extended	0.0
-with wing flaps retracted	-1.2

7. Propeller

	2
Model	AV-725-1
	Propeller designation system: AV-725-1-E-C-F-R(W)-A/CFR230-433
Type Certificate	EASA.P.031
Number of blades	5
Diameter	2300 mm
Sense of Rotation	Clockwise in view of flight direction

8. Fluids

8.1 Fuel	See AIRPLANE FLIGHT MANUAL, Section II LIMITATIONS and Section VII HANDLING, SERVICING & MAINTENANCE
8.2 Oil	See applicable engine Operation Manual

9. Fluid capacities

9.1 Fuel	Standard tank	Total	1870	kg
		Usable	1854	kg
	Wing tip tanks	Total	394	kg
		Usable	390	kg
9.2 Oil	In one engine	Maximum	11	litre
		Minimum	5.5	litre

10. Air Speeds

Maximum operating speed	V _{MO}	210	KIAS	(375	km/h IAS)
Operating manoeuvring speed (7000 kg)	V _O	154	KIAS	(285	km/h IAS)
Maximum speed in turbulence (7000 kg)	V _B	157	KIAS	(292	km/h IAS)
Maximum landing gear operating speed	V _{LO}	164	KIAS	(304	km/h IAS)
Maximum landing gear extended speed	V _{LE}	164	KIAS	(304	km/h IAS)
Maximum flaps extended speed / operating speed					
-take-off configuration 18°	V _{FE/VFO}	150	KIAS	(278	km/h IAS)
-landing configuration 42°	V _{FE/VFO}	124	KIAS	(230	km/h IAS)
Maximum spoiler extended speed	V _{SPOIL}	102	KIAS	(201	km/h IAS)
Minimum control speed					
-for take-off run (flaps 0° or 18°)	V _{MCG}	66	KIAS	(122	km/h IAS)
-for take-off, flaps 18°	V _{MCA}	77	KIAS	(143	km/h IAS)
-for take-off, flaps 0°	V _{MCL}	87	KIAS	(161	km/h IAS)
-for landing	V _{MCL}	73	KIAS	(134	km/h IAS)

11. Maximum Operating Altitude

20000 ft (6100 m)

12. Approved Operations Capability



The aircraft is approved for Day and Night VFR and IFR flights.

The aircraft is approved for intended flights in icing conditions.

13. Maximum Weight

Maximum ramp weight	15476	lb	(7020	kg)
Maximum take-off weight	15432	lb	(7000	kg)
Maximum landing weight	14991	lb	(6800	kg)
Maximum zero fuel weight – without wingtip tanks	14550	lb	(6600	kg)
Maximum zero fuel weight – with wingtip tanks	14683	lb	(6660	kg)

14. Centre of Gravity Range

Forward c.g. limit	19	% MAC
Aft c.g. limit	30	% MAC

15. Datum

Datum point is the levelling point No. 2 (LP2) on the fuselage, located 2.280 m from the frame No.1.

16. Control surface deflections

Elevator	up	30°±1°
	down	14°±1°
Rudder	left and right	25°+1°
Aileron	up	27°±1°
	down	14°±1°
Wing flap outer	take-off position	18°±1°
	landing position	42°±1°
Left aileron trim tab	up	20°±2°
	down	20°±2°
Elevator trim tab	up	10°±1°
	down	20°±1°
Rudder trim tab	left and right	28°+0°/-1.5°
Maximum spoiler deflection, up		72°30'±2°
Maximum ABC tab deflection, up		55°±2°

17. Levelling Means

In longitudinal direction, the levelling plane is defined by levelling points No. 3, 5, 6, in lateral direction by levelling points No. 19LH and 19PH.

18. Minimum Flight Crew

2

19. Maximum Passenger Seating Capacity

19

20. Baggage/ Cargo Compartments

Max. baggage load-front baggage compartment	661	lb	(300	kg)
Max. baggage load-rear baggage compartment	331	lb	(150	kg)

21. Wheels and Tyres

Nose wheels and tyres:	550x225 Model 5 Tubeless
Main wheels and tyres	720x310 Model 5 Tubeless

G.IV. Operating and Service Instructions

1. Flight Manual



Do-L410NG-1210.2

Airplane Flight Manual for the L 410 NG

2. Maintenance Manual

2.1 Maintenance Schedule:

Do-L410NG-1220.2

Maintenance Schedule for the L 410 NG Airplane

2.2 Maintenance Manual:

Do-L410NG-1230.2

Maintenance Manual for the L 410 NG Airplane

2.3 Album of Production, Operation and Repair Tolerances:

Do-L410NG-2030.2

Album of Production, Operation and Repair Tolerances of the L 410 NG Airplane

3. Structural Repair Manual

Do-L410NG-2020.2

Airframe Repair Manual for the L 410 NG Airplane

4. Illustrated Parts Catalogue

Do-L410NG-1250.2

E-IPC - Electronic illustrated parts catalog L 410 NG

5. Other

6.1 Wiring manual:

Do-L410NG-1240.2

Wiring Manual for the L 410 NG Airplane

6.2 Inspection manual:

Do-L410NG-2010.2

Inspection Manual for the L 410 NG Aeroplane

6. Operational Suitability Data

Master Minimum Equipment List (MMEL)

Do-L410NG-3000.2

Master Minimum Equipment List (MMEL)

Flight Crew Data

L410-FCD

Operational Suitability Data, Flight Crew Data
L 410 UVP-E20 and L 410 NG

G.V. Notes

Eligible Serial Numbers:
5002 and subsequent.



SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

N/A

II. Type Certificate Holder Record

LET, n.p. 686 04 Kunovice 1177 CZECHOSLOVAKIA	LET, a.s. 686 04 Kunovice 1177 CZECHOSLOVAKIA / CZECH REPUBLIC	LETECKÉ ZÁVODY, a.s. 686 04 Kunovice, Na Záhonech 1177 CZECH REPUBLIC	Aircraft Industries, a.s. 686 04 Kunovice, Na Záhonech 1177 CZECH REPUBLIC
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III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue	dd month yyyy	Initial Issue	Initial Issue, dd month yyyy
1	04 FEB 2005	Initial Issue.	
2	19 AUG 2005	Editorial changes.	
3	SEPT 2005	Editorial changes.	
4	24 OCT 2005	Editorial changes.	
5	17 MAY 2006	Change in address of TC holder.	
6	22 FEB 2007	Incorporation of L 410 UVP-E20 CARGO.	
7	28 MAR 2007	Addition of L – 410 M Turbolet, L – 410 UVP – Turbolet, L – 410 UVP-E, L 410 UVP-E9, L 410 UVP-LW, L 410 UVP-E-LW.	
8	22 JUN 2007	Clarification of approved type design for L-410 M Turbolet, L-410 UVP Turbolet, L – 410 UVP-E, L 410 UVP-E9, L 410 UVP-LW and L 410 UVP-E-LW by reference to Serial number and date.	
9	23 NOV 2007	Removal of L – 410 UVP-LW – 810726; 810727 from SECTION B V. Notes, Paragraph 11, these aircraft being declared as government aircraft under Commission Regulation (EC) 1592/2002 Article 1.2.	
10	30 MAY2008	Updated requirements concerning safety modifications of the L-410 M Turbolet, L-410 UVP-Turbolet, L- 410 UVP-E , L 410 UVP-E9, L-410 UVP-LW and L 410 UVP-E-LW models.	
11	07 MAY 2009	Addition of Notes about Installation Approval of Universal EFI-890R Dual Electronic Flight Displays and Madras FA 2200 Flight Data Recorder on L 410 UVP-E20 and L 420 aircraft models.	
12	08 JUN 2010	Addition of L410 UVP-E s/n 902507 to list of aircraft meeting the TCDS design standard. Removal of table of effective pages and repetition of issue Numbers.	
13	28 JUN 2010	Addition of L410 UVP-E s/n 902506 to list of aircraft meeting the TCDS design standard. Reformatting in new standard EASA TCDS style.	
14	01 MAR 2011	Addition of ageing aircraft programme details.	



Issue	Date	Changes	TC Issue No. & Date
15	12 SEP 2012	Correction of the marking error of nose and main wheel. Addition of Sport Parachuting kit. Removal of fuel heater from type design of the airplane L410UVP-E20 and L-420 manufactured after August 12/09. Addition of Aging aircraft program in Czech and Russian language. Addition of L410 UVP-E20 Flight Manual with Russian marking and placards.	
16	05 JUN 2013	Addition of the GE H80-200 engine with AV-725 propeller for L410UVP-E20 airplane; Addition of Ambulance kit. Editorial changes.	
17	12 MAY 2014	Certification Basis of Major Changes added in E.V.5, S/N updated in all sections.	
18	13 MAY 2015	Refer to sections ()III.5. and ()III.6: References to EASA Engine Type Certificate Data Sheets corrected. TDC-199-E20 and appropriate document Numbers added.	
19	22 OCT 2015	Range of Serial Numbers in section E IV. Updated.	
20	18 DEC 2015	OSD (MMEL) data added to Sections C, D, E; renumbering.	
21	07 FEB 2017	Addition of L410 UVP-E20 s/n 882101 to list of aircraft meeting the TCDS design standard (Section E IV. Point 11).	
22	11 AUG 2017	Eligible s/n updated, Service Bulletins for aircraft conversion listed, List of manuals updated. Section E. IV point 3 deleted, Editorial changes.	
23	26 SEP 2017	Editorial changes; Production outside EU (Russia) mentioned in Section E VI.	
24	19 DEC 2017	Model L 410 NG added in section G. Note to eligible Serial Numbers for L 410 UVP-E20 was added.	
25	07 MAY 2018	Eligible s/n updated in Section E. IV point 11	
26	22 AUG 2018	Editorial changes in sections B V.6, B V.8, E VI., G II.6 and G VI.	
27	25 FEB 2019	Editorial changes, correction of typos in sections A V., B V., C IV, V, D IV., E IV, VI, G IV., V.	
28	25 MAY 2019	Editorial change in section G VI, item 3.	
29	15 JUL 2019	Information added to L410 UVP E20 Section E. Section 3.Equipment for all aircraft updated to read "The list of approved equipment is shown in the Maintenance Manual".	
30	25 SEP 2019	Section G.VI note 3 text revised.	
31	28 AUG 2020	EIII Section 2, VIP and Pax cargo quick change added GIII Section 2 L 410 NG with Sport Parachuting kit L 410 NG with Ambulance kit. L 410 NG with Cargo kit L 410 NG with the rear VIP saloon. L 410 NG with passenger to cargo quick change. Standard – without wing tip tanks. Optional – with wing tip tanks. Are added. G.VI Notes note 3 e) added.	
32	24 SEP 2020	OSD – FCD certification basis and FCD syllabuses for L 410 UVP-E20 and L 410 NG added	
33	19 NOV 2020	Page 17 item 1 eligible Serial numbers Serial 811240 corrected to 841240 in line 5	
34	24 NOV 2022	1. Add new fuel type (No. 3 Jet Fuel) for L 410 UVP-E20 and L 410 NG. 2. Manuals in Operating and Service Instructions sections were divided to ICA and others manuals for all models. 3. Editorial corrections.	



Issue	Date	Changes	TC Issue No. & Date
35	18 May 2026	<ol style="list-style-type: none"> 1. Transferred to the new EASA template TE.CERT.00048-002 2. A more detailed table of contents has been introduced. 3. Addition of Section N.III.6 Load factors for all models. 4. Change, Section N.III.8 Fluids, all models. Instead of specifying the fuels and oils used, a reference to the operating manuals where the specifications are contained has been published. 5. Additions to Section N.III.16, Control Surface Deflections, for all models, or corrections to errors in previously published data. 6. Updated the list of Operating and Service Instructions in all Sections N.IV to reflect the current status, removing errors and invalid documents. 7. The list of Eligible Serial Numbers has been relocated to Section N.V. Notes for all models. 8. The Walter M 601 A engine has been removed from Section A III.5. Information regarding its replacement with the Walter M 601 D engine, as per the service bulletin L410MA/52b, has been added. 9. The Walter M 601 B engine has been removed from Section B III.5. 10. Change in Section E.III.9, Fluid Capacities: Replace the fuel volume in liters with the fuel weight in pounds and kilograms. 11. The description of the Certification Basis for Type Design Change in Section E.VI has been removed. 12. List of EASA approved Flight Manual Supplements for kits in Section G VI has been removed. 13. A detailed description of the L 410 NG certification basis has been added to Chapter G.II. 14. Other editorial changes and corrections not listed above. 	

-END-

