EASA
European Union Aviation Safety Agency

TYPE-CERTIFICATE DATA SHEET

No. E.082

for
Limbach L 1700 series engines

Type Certificate Holder
Limbach Flugmotoren GmbH

Kotthausener Str. 5
D-53639 Königswinter
APDOA EASA.AP509

For Models:

L 1700 E0
L 1700 EA
L 1700 EB
L 1700 EC
L 1700 ED

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I. General

1. Type/ Model
Muster/Baureihe:

L 1700 / L 1700 E0, EA, EB, EC, ED

2. Type Certificate Holder
Halter der Musterzulassung:

Limbach Flugmotoren GmbH
Kotthausener Str. 5
D-53639 Königswinter
APDOA EASA.AP509

3. Manufacturer
Hersteller:

Limbach Flugmotoren GmbH

4. Date of Application
Datum des Antrages für EASA-Musterzulassung:

L 1700 E0	L 1700 EA	L 1700 EB	L 1700 EC	L 1700 ED	
6 Dec. 1971	6 Dec. 1971	11 Dec. 1972	15 Aug. 1972	30 Jan. 1981	

Note: Application for L 1700 E0, EA, EB, EC, ED was made to LBA before EASA has been established.

Bemerkung: Der Antrag für L 1700 E0, EA, EB, EC, ED wurde an das LBA gestellt bevor die EASA eingerichtet war.

5. EASA Type Certification Date
Datum der EASA-Musterzulassung:

L 1700 E0	L 1700 EA	L 1700 EB	L 1700 EC	L 1700 ED	
25 May 1972	25 May 1972	05 Sept. 1973	30 March 1973	23 June 1981	

Note: L 1700 E0, EA, EB, EC, ED had been certified by LBA Germany (TC/TCDS 4582).
This TCDS replaces LBA TCDS No 4582.
Transfer date to EASA Type Certificate: 04 August 2006

Bemerkung: L 1700 E0, EA, EB, EC, ED wurden vom LBA zugelassen (Musterzulassungsschein/Kennblatt Nr. 4582).
Dieses Kennblatt ersetzt das LBA Kennblatt Nr. 4582.
Überführung in die EASA Musterzulassung: 04. August 2006

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II. Certification Basis

Zulassungsbasis

1. EASA Certification Basis

1.1. Airworthiness Standards

Lufttüchtigkeitsforderungen:

L 1700 E0 up to S/N 1446, L 1700 EA up to S/N 1855, L 1700 EB up to S/N 1060,
L 1700 EC up to S/N 1082, L 1700 ED up to S/N 1020:
bis Seriennr. LBA Mitteilung zu Bau- und Prüfvorschriften Nr. 10.05

L 1700 E0 from S/N 1447 onwards, L 1700 EA from S/N 1856 onwards,
L 1700 EB from S/N 1061 onwards, L 1700 EC from S/N 1083 onwards,
L 1700 ED from S/N 1021 onwards: JAR-22 H, Change 5, dated 28 October 1995
von Seriennr. .... . an aufwärts

1.2. Special Conditions (SC)

Sonderforderungen:

none

1.3. Equivalent Safety Findings

Nachweise gleichwertiger Sicherheit

none

1.4. Deviations

Abweichungen

none

1.5. Environmental Protection

Umweltschutzforderungen

None (not required for piston engines)
(nicht gefordert für Kolbentriebwerke)

III. Technical Characteristics

Technische Merkmale

1. Type Design Definition

Musterdefinition

As defined by the parts list "Strukturstückliste" of the particular model.
Durch die Strukturstückliste der jeweiligen Variante definiert.

2. Description

Beschreibung

The L 1700 engine is a four cylinder, four stroke spark ignited air cooled flat piston engine equipped with one carburettor (L 1700 EB: two carburettors) and a single magneto.
Der L 1700 ist ein luftgekühlter Vierzylinder-Viertakt-Boxer-Ottomotor, ausgerüstet mit einem Vergaser (L 1700 EB: zwei Vergaser) und einer Einzelmagnetzündung.

Displacement:	1.680 dm^3 (L 1700 E0, EA, EC, ED)
Hubraum:	1.800 dm^3 (L 1700 EB)
Bore x stroke:	88 mm x 69 mm (L 1700 E0, EA, EC, ED)
Bohrung x Hub:	88 mm x 74 mm (L 1700 EB)
Compression ratio:	8 : 1
Verdichtungsverhältnis:	
Gear ratio:	N/A
Übersetzungsverhältnis:	

3. Equipment

Ausrüstung

See Operation and Maintenance Manual
Siehe Betriebs- und Wartungshandbuch

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4. Dimensions
Abmessungen:

Model		L 1700 E0, EC	L 1700 EA	L 1700 EB	L 1700 ED
Overall Length Gesamtlänge	mm	627	600	672	595
Overall Height Gesamthöhe	mm	415	463	373	450
Width Breite	mm	775			

5. Dry Weight
Trockenmasse:

Model		L 1700 E0, EA, EC, ED	L 1700 EB	
Mass Masse	kg	73	74	

6. Ratings:
Leistungen:

Rating		L 1700 E0, EC	L 1700 EA	L 1700 EB	L 1700 ED
Power	Take-off Startleistung	50 kW at 3600 rpm	44 kW at 3550 rpm	53 kW at 3600 rpm	41 kW at 3550 rpm
	Max. Continuous Max. Dauerleistung	44 kW at 3200 rpm	41 kW at 3300 rpm	48 kW at 3200 rpm	39 kW at 3300 rpm

Note : The performance values specified above correspond to minimum values defined under the conditions of ICAO or ARDC standard atmosphere.
Bemerkung: Die Leistungsangaben entsprechen den Minimalwerten, die unter den Bedingungen der ICAO oder ARDC Standardatmosphäre ermittelt wurden.

7. Control System
Regelsystem

All engines are equipped with one carburettor (except L 1700 EB: two carburettors) and a single magneto ignition system.
Alle Motoren sind mit einem Vergaser (außer L 1700 EB: zwei Vergaser) und einer Einzelmagnetzündanlage ausgerüstet.

8. Fluids (Fuel, Oil, Coolant, Additives)
Betriebsstoffe (Kraftstoff/Öl/Additive):

See Operation and Maintenance Manual for approved fluids.
Siehe Betriebs- und Wartungshandbuch für zugelassene Betriebsstoffe

9. Aircraft Accessory Drives
Hilfsgeräteantriebe:

There are no provisions for customer/aircraft furnished equipment.
Es gibt keine Antriebe für vom Kunden oder Flugzeughersteller beigestellte Ausrüstung.

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IV. Operating Limitations

Betriebsgrenzen

1. Temperature Limits

Temperaturbegrenzungen:

Cylinder head: 250 °C
Zylinderkopf:

Oil inlet: 120 °C
Öleintritt:

2. Speed Limits

Drehzahlbegrenzungen:

Minimum Continuous Speed: 2300 rpm
Mindestdauerdrehzahl:

Maximum Engine Speed: 3550 rpm (L 1700 EA)
Höchstzulässige Drehzahl: 3600 rpm (L 1700 E0, EB, EC, ED)

3. Pressure Limits

Druckbegrenzungen:

Oil Pressure: 1.0...4.0 bar
Öldruck:

V. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

Manuals	in German language in deutscher Sprache	in English language in englischer Sprache
Installation Manual for all models	-	P/N 905.170.010.000
Operating Manual for all models Betriebshandbuch für alle Baureihen	P/N 170.253.900.000	P/N 170.253.905.000

Instructions for Continued Airworthiness (ICA)	in German language in deutscher Sprache	in English language in englischer Sprache
Maintenance Manual Wartungshandbuch	P/N 170.253.900.000	P/N 170.253.905.000
Repair Manual Reparaturhandbuch	-	P/N 905.170.020.000
Service Bulletins Technische Mitteilungen	as required	as required

Note: The ICA do not contain an Airworthiness Limitation Section.
Bemerkung: Die Anweisungen für die Erhaltung der Lufttüchtigkeit enthalten keine Angaben zur Beschränkung der Lufttüchtigkeit.

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VI. Notes

Note 1: Engine model numbers may include a suffix to define minor specification changes.
Die Motorbezeichnung kann einen Suffix zur Kennzeichnung von kleinen Änderungen enthalten.

Engine Designation System:
Motorkennzeichnungssystem:

L	1700	E	B	1	.	x	x
--	------	--	--	--		--	--
1	2	3	4	5		6	7

1. Company Designation
   Firmenbezeichnung

2. Cubic displacement in cm^3
   Hubraum

3. E = Single ignition Einzelzündung
   D = Double ignition Doppelzündung

4. Accessories – Basic configuration
   Konstruktionsmerkmale

   0 = Tractor type engine, carburettor in the back, bottom location, alternator in the back, starter in the back
   Zugschrauber, Vergaser unten hinten, Generator hinten, Anlasser hinten
   A = Tractor type engine, carburettor in the back, top location, alternator in the front, starter in the front
   Zugschrauber, Vergaser oben hinten, Generator vorn, Anlasser vorn
   B = Tractor type engine, 2 carburettors in the back, top location, alternator in the back, starter in the back
   Zugschrauber, 2 Vergaser oben hinten, Generator hinten, Anlasser hinten
   C = Pusher type engine, carburettor in the back, bottom location, alternator in the back, starter in the back
   Druckschrauber, Vergaser unten hinten, Generator hinten, Anlasser hinten
   D = Tractor type engine, carburettor in the back, bottom location, alternator in the front, starter in the front
   Zugschrauber, Vergaser unten hinten, Generator vorne, Anlasser vorne

5. Propeller flange variant
   Propellerflanschausführung

   1 = Propeller flange for variable pitch propeller
   Propellerflansch für Verstellpropeller
   2 = Propeller flange for fixed pitch propeller
   Propellerflansch für Festpropeller
   3 = Propeller flange according to SAE Std. No. 1 for fixed pitch propeller
   Propellerflansch für Festpropeller nach SAE 1

6., 7. Differences regarding installation-related changes
   Unterschiede bezüglich einbaubedingter Änderungen

   X = Engine without certification for experimental purposes
   Experimentalmotor ohne Zulassung

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Note 2: The engine designation has been changed according Service Bulletin no. 17
Die Motorbezeichnung wurde entsprechend Technischer Mitteilung Nr. 17 geändert

Old designation Alte Bezeichnung	New designation Neue Bezeichnung
SL 1700 E	L 1700 E0 2
SL 1700 E I	L 1700 E0 1
SL 1700 EA	L 1700 EA 2
SL 1700 EA I	L 1700 EA 1
L 1700 EA.A	L 1700 ED 2
SL 1700 EB	L 1700 EB 2
SL 1700 EB I	L 1700 EB 1
SL 1700 EC	L 1700 EC 2
SL 1700 EC I	L 1700 EC 1

Note 3: For recommended TBO see Service Bulletin no. 9.
Für die empfohlenen Überholungsintervalle siehe Technische Mitteilung Nr. 9

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SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

n/a

II. Type Certificate Holder Record

Limbach Flugmotoren GmbH & Co. KG (until 17 August 2017)

III. Change Record

Issue	Date	Changes	TC issue
Issue 01	04 August 2006	Initial Issue	Initial Issue, 04 August 2006
Issue 02	17 August 2021	Reformatting, APDOA no. added	17 August 2021

-END-

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