European Aviation Safety Agency

EASA
TYPE-CERTIFICATE
DATA SHEET

EASA.IM.A.341
BE-103

Type Certificate Holder:

Beriev Aircraft Company
1, Aviatorov square
Taganrog, 347923
RUSSIA

For models: Be-103

Issue 02: 01-Mar-2013

CONTENT

Section A: Be-103

A.I. General

1.	a) Type: b) Model: c) Variant:	Be-103 Be-103 ---
2.	Airworthiness Category:	Normal Category
3.	Type Certificate Holder:	Beriev Aircraft Company 1, Aviatorov square Taganrog, 347923 Russia
4.	Manufacturer:	KnAAPO 1, Sovetskaya street Komsomolsk-on-Amur, 681018 Russia
5.	Application Date at country of origine:	14-Sep-2001
6.	EASA Certification Application Date:	26-Sep-2005
7.	EASA Type Certification Date:	23-Dec-2008

A.II. Certification Basis

1.	Reference Date for determining the applicable requirements:	14-Sep-2001
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	As defined in CRI A-01, Release 2, Revision 1, dated 19-Dec-2008, or later Revision
5.	Airworthiness Requirements:	JAR-23, Amendment 1, issued 01 February 2001 JAR-1, Change 5, issued 15 July 1996
6.	Requirements elected to comply:	None
7.	EASA Special Conditions:	CRI F-52, Protection from Effects of HIRF CRI F-54, Protection from the Effects of Lighning Strike, Indirect Effects
8.	EASA Exemption:	None
9.	EASA Equivalent Safety Findings:	None
10.	EASA Environmental Standards:	ICAO, Annex 16, Volume 1, Third Edition, Amdt. 6 CS-36, issued 03-Apr-2007, Amendment 1, see CRI N-01

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Current issue of Doc. No. A103.4.0000.000D49 (as defined in CRI A-05)

2. Description: Twin engine, five-seated cantilever low wing amphibious airplane, metal construction, retractable tricycle landing gear, X-tail

3. Equipment: Equipment list, AFM, Doc. No. A103.4.0000.000.AFM, Section 6

4. Dimensions:

Span	12,72 m	(41.73 ft)
Length	10,875 m	(35.68 ft)
Height	3,757 m	(12.31 ft)
Wing Area	25,1 m²	(270.2 sqft)

5. Engines: 2 Teledyne Continental Engines IO-360 ES4
FAA TC No. E1CE, deemed to be EASA approved

5.1 Engine Limits:

Max take-off rotational speed	2800 r.p.m.
Max continuous rotational speed	2800 r.p.m

For power-plants limits refer to AFM, Doc. No. A103.4.0000.000.AFM, Section 2

6. (Reserved)

7. Propellers: 2 MT-Propeller MTV-12-D-C-F-R(M)/CFR183-17
EASA Prop. Type Certificate Data Sheet P.013

7.1 Settings

Low pitch setting:	8,5 °
Feather position	83 °
Revers position	-20 °

8. Fluids:

8.1 Fuel: AVGAS 100 LL
AVGAS 100
Б95/130 GOST 1012-72 (Russian Aviation Grade Fuel)

8.2 Oil: engine 15W-50. 20W-50, SAE 30 or 10W-30, SAE 50
or see AFM, Doc. No. A103.4.0000.000.AFM, Section 1

8.3 Coolant: None

8.4 Ice Protection Fluids None

9. Fluid capacities:

9.1 Fuel:	Wing Fuel Tank	Total:	193.8 kg (271 liters / 71 US Gallons)
		Usable:	193.1 kg (270 liters / 71 US Gallons)
	Pylon Fuel Tank	Total:	49.3 kg (69 liters / 18 US Gallons)
		Usable:	47.9 kg (67 liters / 18 US Gallons)
9.2 Oil:	each engine		9,12 liters 8 qts

10. Air Speeds:

Design Manoeuvring Speed v_A:	up to 2270 kg (5004 lb)	116 KIAS
Flap Extended Speed v_{FE}:	Approach	None
	Landing	None
Maximum Landing Gear Operation Speed v_{LO}:		99 KIAS
Maximum Landing Gear Extended Speed v_{LE}:		99 KIAS
Minimum Control Speed v_{MC}:		62 KIAS
Maximum Operating Limit Speed v_{MO}:		130 KIAS

11. Operating Altitudes

Maximum Operating Altitude:	3000 m (9900 ft)
Maximum Airfield Elevation for take-off:	900 m (3000 ft)

12. Conditions

All weather Capability:	Day-VFR Flights into known or forecast icing conditions is prohibited	
Outside Air Temperature at start-up and take-off:	Land Operations:	from -30 °C (-22 °F) to 40 °C (105 °F)
	Water Operations:	from 5 °C (41 °F) to 40 °C (105 °F)

13. Maximum Masses:

Take-off (Land & Water)	2270 / 2267 kg (5004 / 4999 lb)
Zero Fuel	2220 kg (4888 lb)
Landing (Land & Water)	2270 / 2267 kg (5004 / 4999lb)
Taxi (Land)	2280 kg (5022 lb)

14. Centre of Gravity Range:

Forward limit	17 % MAC
Rear limit:	22 % MAC

15. Datum: 20.94 in in front of point 11 LH (11 RH)

16. (Reserved)

17. Levelling Means: Point 11 LH (11 RH) and point 25 LH (25 RH) see AMM, Section 08.10.00

18. Minimum Flight Crew: 1 (Pilot)

19. Maximum Passenger Seating Capacity: 4

20. (Reserved)

21. Baggage / Cargo Compartments

Location	max. allowable Load
Aft Baggage Compartment	50 kg (110 lb)

22. Wheels and Tyres

Nose Wheel Tyre Size	400x150mm
Main Wheel Tyre Size	476x178mm

A.IV. Operating and Service Instructions

Airplane Flight Manual (AFM)	Document No. A103.4.0000.000.AFM
Master Minimum Equipment List (MMEL)	Document No. A103.4.0000.000.MMEL
Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations)	Document No. A103.4.0000.000.AMM
Service Informations and Service Bulletins	

A.V. Notes

1. This certification applies to serial numbers 3901 and subsequent for production at KnAAPO.

2. Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.341.

3. Unless closure of all open Pre C of A Items listed in the Post TC Action Item List (PTC-AIL), Doc. No. Be-103_PTC-AIL_01, Rev. 0, no Be-103 aircraft is eligible to enter a register of a country member of the EU or EASA. Upon closure of those open items this note will be deleted.

ADMINISTRATIVE SECTION

I. Aconyms

None

II. Type Certificate Holder Record

No change done so far

III. Change Record

Issue	Date	Changes
1	23-Dec-2008	Initial Issue of TCDS
2	01-Mar-2013	All pages: Layout changed to new version Title Section 1: Type Designator corrected A.I: Correction of TC Number A.II.4: Revision and date of CRI A-01 added A.V.: Reference to PTC-AIL added instead of AIL