



## ***European Aviation Safety Agency***

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### **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



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## **Section A: Be-103**

### **A.I. General**

1. a) Type: Be-103  
b) Model: Be-103  
c) Variant: ---
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 Lightning 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<br>(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 m <sup>2</sup> (270.2 sqft)  |
| 5.  | Engines:  | 2 Teledyne Continental Engines IO-360 ES4<br>FAA TC No. E1CE, deemed to be EASA approved  |
| 5.1 | Engine Limits:  | Max take-off rotational speed    2800 r.p.m.<br>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<br>EASA Prop. Type Certificate Data Sheet P.013                                      |
| 7.1 | Settings  | Low pitch setting: 8,5 °<br>Feather position    83 °<br>Revers position     -20 °   |
| 8.  | Fluids:   |   |
|     | 8.1 Fuel:   | AVGAS 100 LL<br>AVGAS 100<br>E95/130 GOST 1012-72 (Russian Aviation Grade Fuel)   |
|     | 8.2 Oil:    engine  | 15W-50, 20W-50, SAE 30 or 10W-30, SAE 50<br>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)<br>Usable:       193.1 kg (270 liters / 71 US Gallons)                      |
|     | Pylon Fuel Tank   | Total:        49.3 kg (69 liters / 18 US Gallons)<br>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<br>Landing              | None<br>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
- | <u>Location</u>         | <u>max. allowable Load</u> |
|-------------------------|----------------------------|
| 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.

**SUSPENDED**

## **ADMINISTRATIVE SECTION**

### **I. Aconyms**

None

### **II. Type Certificate Holder Record**

No change done so far

### **III. Change Record**

<b>Issue</b>	<b>Date</b>	<b>Changes</b>
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