European Aviation Safety Agency

EASA

TYPE-CERTIFICATE
DATA SHEET

I-23

Type Certificate Holder:

Instytut Lotnictwa
Al. Krakowska 110/114
02-256 Warszawa
POLAND

Manufacturer:

Instytut Lotnictwa
Al. Krakowska 110/114
02-256 Warszawa
POLAND

For variant: I-23 "Manager"

Issue 01: November 15, 2006

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SECTION 1: I-23 “Manager”

I. General

Data Sheet No.: A.0xx Issue: 01 Date: November 15, 2006

1. a) Type: I-23
   b) Variant: I-23 “Manager”

2. Airworthiness Category: FAR-23 Normal Category

3. Type Certificate Holder:
   Instytut Lotnictwa
   Al. Krakowska 110/114
   02-256 Warszawa
   POLAND

4. Manufacturer:
   Instytut Lotnictwa
   Al. Krakowska 110/114
   02-256 Warszawa
   POLAND

5. The CAO PL Certification Application Date: March 24, 1994

6. The CAO PL Certification Date: October 3, 2001

7. This EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-215

II. Certification Basis

1. Reference Date for determining the applicable requirements: See 1.II.5.

2. (Reserved)

3. (Reserved)

4. Certification Basis: As defined below

5. Airworthiness Requirements:
   FAR 23 Amendment 23-42 Effective data February 4, 1991
   and FAR 23.53 (b)(2) Amendment 23-45 Effective data September 7, 1993

6. Requirements elected to comply: None

7. EASA Special Conditions: None

8. EASA Exemptions: None

9. EASA Equivalent Safety Findings: None

10. EASA Environmental Standards:
    Annex 16, Section 10 of ICAO Convention;
    FAR Part 36, Appendix G Amendment 36-22 Effective data December 13, 1999
    (See Note 1)
III. **Technical Characteristics and Operational Limitations**

1. **Type Design Definition:** Drawing No. 800.01.00.00.00 and following approved Design Changes

2. **Description:** Single-engine, four-seat, cantilever low-wing monoplane, composite construction, with conventional empennage and tricycle retractable landing gear with steerable nose wheel.

3. **Equipment:** Minimum Equipment List: AFM, Section 2
   Equipment List: AFM, Section 6

4. **Dimensions:**
   - Span: 8.94 m (29.33 ft)
   - Length: 7.10 m (23.29 ft)
   - Height: 2.48 m (8.14 ft)
   - Wing Area: 10.0 m² (107.64 sq ft)

5. **Engine:** TEXITRON LYCOMING O-360-A1A
   FAA Engine Type Certificate Data Sheet No. E-286

   5.1 **Engine Limits:**
      - Maximum Take-off Power 2700 RPM - 180 hp
      - Maximum Continuous Power 2700 RPM - 180 hp

   For power-plants limits refer to AFM, Section 2

6. *(Reserved)*

7. **Propeller:**
   Hartzell Propeller Inc. Model: HC-C2YR-1BF/F7666A-4
   FAA Type Certificate Data Sheet No. P-920
   Diameter: 1.83 m (72 inches)
   Number of Blades: 2
   Low Pitch: 12.8 °
   High Pitch: 28.8°
   Spinner: Hartzell 836-60

8. **Fluids:**

   8.1 **Fuel:** Aviation gasoline 100 or 100LL

   8.2 **Oil:** Refer to AFM, Section 1

9. **Fluid capacities:**

   9.1 **Fuel:**
      - Total: 191 litres (50.5 US Gallons)
      - Usable: 174 litres (46.0 US Gallons)

   9.2 **Oil:**
      - Maximum: 7.6 litres (8.0 qts)
      - Minimum: 1.9 litres (2.0 qts)
10. Air Speeds:

- Never Exceed Speed $V_{NE}$ 332 km/h CAS
- Maximum Structural Cruising Speed $V_{NO}$ 295 km/h CAS
- Design Manoeuvring Speed $V_A$ 246 km/h CAS
- Maximum Flap Extended Speed $V_{FE}$ 203 km/h CAS
- Maximum Landing Gear Extended Speed $V_{LE}$ 184 km/h CAS
- Maximum Landing Gear Operating Speed $V_{LO}$ 180 km/h CAS

11. Maximum Operating Altitude: Not defined

12. Operational Capability:
   - VFR Day, VFR Night
   - IFR Day, IFR Night
   - Flight into known icing conditions is prohibited

13. Maximum Masses:

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take-Off</td>
<td>1150 kg</td>
</tr>
<tr>
<td>Landing</td>
<td>1150 kg</td>
</tr>
<tr>
<td></td>
<td>(2535 lb)</td>
</tr>
</tbody>
</table>

14. Centre of Gravity Range:

   - Forward Limits: 0.858 m aft of datum [20.4 % M.A.C.] up to 1030 kg
   - with a straight line taper to 0.943 m aft of datum [27.9 % M.A.C.] at 1150 kg
   - Aft Limits: 1.007 m aft of datum [33.5 % M.A.C.] for all masses

15. Datum:
   - The face of frame No 1 from the engine side

16. (Reserved)

17. Levelling Means:
   - Fuselage levelling points (refer to AFM, Sect. 6.1.)

18. Minimum Flight Crew: 1 (Pilot)

19. Maximum Passenger Seating Capacity: 3

20. (Reserved)

21. Baggage / Cargo Compartment

   - Behind Rear Seat 20 kg (44.1 lb) at 2.650 m aft of datum

22. Wheels and Tires

   - Nose Wheel Tire Size 5.00x5-10PR TT
   - Main Wheel Tires Size 5.00x5-10PR TT

23. Control Surface Movements:

<table>
<thead>
<tr>
<th>Surface</th>
<th>Up</th>
<th>Down: Take-off</th>
<th>Down: Landing</th>
</tr>
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<tbody>
<tr>
<td>Wing Flaps</td>
<td>0° +2°</td>
<td>23° ±1°</td>
<td>30° ±1°</td>
</tr>
<tr>
<td>Aileron</td>
<td>20.2°±1°</td>
<td>15.8°±1°</td>
<td></td>
</tr>
<tr>
<td>Elevator</td>
<td>22.5°±1°</td>
<td>21.5°±1°</td>
<td></td>
</tr>
<tr>
<td>Rudder</td>
<td>21° ±1°</td>
<td>21° ±1°</td>
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</table>
IV. Operating and Service Instructions


OPERATOR'S MANUAL "TEXTRON Lycoming O-360, HO-360, IO-360, AIO-360, HIO-360 & TIO-360 Series Aircraft Engines", Part No. 60297-12, latest effective issue

TEXTRON LYCOMING Service Instruction O-360, HO-360, IO-360, AIO-360, HIO-360, TIO-360", No. 1009, latest effective issue


V. Notes

NOTE 1: Approved Noise Level in accordance to ICAO Annex 16, Section 10 / FAR 36, Appendix G, Amdt. 36-22: 82.82±0.3 dB(A), for a limit of 85.21 dB(A). (Noise Certificate No. HL-5/03)

NOTE 2: This Type Certificate applies to aircraft S/N 800.01.02 , 800.01.03 and up.