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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 m <sup>2</sup>	(107.64 sq ft)
5. Engine: TEXTRON 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:
- |          |         |           |
|----------|---------|-----------|
| Take-Off | 1150 kg | (2535 lb) |
| Landing  | 1150 kg | (2535 lb) |
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:
- |            |      |                          |                |                          |
|------------|------|--------------------------|----------------|--------------------------|
| Wing Flaps | Up   | $0^\circ +2^\circ$       | Down: Take-off | $23^\circ \pm 1^\circ$   |
|            |      |                          | Landing        | $30^\circ \pm 1^\circ$   |
| Aileron    | Up   | $20.2^\circ \pm 1^\circ$ | Down           | $15.8^\circ \pm 1^\circ$ |
| Elevator   | Up   | $22.5^\circ \pm 1^\circ$ | Down           | $21.5^\circ \pm 1^\circ$ |
| Rudder     | Left | $21^\circ \pm 1^\circ$   | Right          | $21^\circ \pm 1^\circ$   |

**.IV. Operating and Service Instructions**

Airplane Flight Manual (AFM)	"AIRPLANE FLIGHT MANUAL. I-23 MANAGER" - Doc. No. BL-895/2001, latest approved revision
Aeroplane Maintenance Manual (AMM) (incl. Airworthiness Limitations)	"AIRPLANE MAINTENANCE MANUAL. I-23 MANAGER" - Doc. No. I-23/47/BP/2000, latest approved revision
	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
	HARTZELL Propeller, Manual 115N „Propeller Owner's Manual & Log Book", 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:  $82.82 \pm 0.3$  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.