

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H15EU Revision 2 PZL W-3A March 1, 2007
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TYPE CERTIFICATE DATA SHEET No. H15EU

This data sheet which is part of Type Certificate No. H15EU prescribes conditions and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder. PZL Swidnik S.A.
21-045 Swidnik
Poland

I. Model "PZL W-3A" (Transport Helicopter - Category A and Category B), approved May 31, 1993.
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Engines. Number of engines 2
Engine type PZL - 10W
Engine category Turboshaft
Manufacturer PZL Rzeszow

Engine Operating Limits. Normal Operation

Engine rating		Takeoff (5 minutes)	Maximum Continuous
Torque	Max	109%	85%
Power turbine speed	Max	105%	105%
	Min	100%	105%
Gas generator speed	Max	97%	93%
Gas temperature	Max	725°C	670°C

One Engine Inoperative

Engine rating		2 1/2-minute limit	30-minute limit
Torque	Max	139%	121%
Power turbine speed	Max	105%	105%
	Min	95%	95%
Gas generator speed	Max	102%	98%
Gas temperature	Max	770°C	735°C

Note: 100% power turbine speed corresponds to 22490 rpm
100% gas generator speed corresponds to 31486 rpm

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Rotor Speed Limitation.

	Power-Off	Power-On
Max. transient	112%	112% (15 sec)
Maximum	108%	105%
Minimum	90%	100% (twin engine operation) 95% (single engine operation)
Min. transient	85%	95% (twin engine operation) 85% (single engine operation)

Note: 100% rotor speed corresponds to 255.7 rpm

C.G. Limitation.

C.G. location is determined in X-Y-Z coordinates having the origin in a piercing point of rotor axis on rotor plane of rotation. The X axis is sensed forward and is defined as an intersection of the rotor plane of rotation on the helicopter plane of symmetry.

The Y axis is sensed upward and aligns with rotor axis.

The Z axis is sensed to the right as viewed from rear.

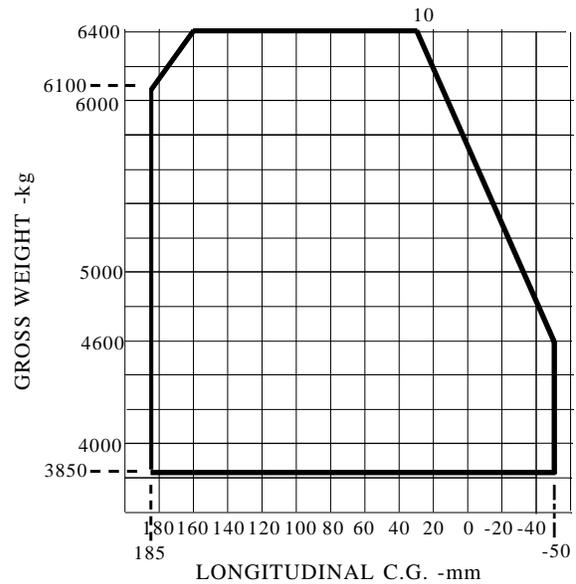
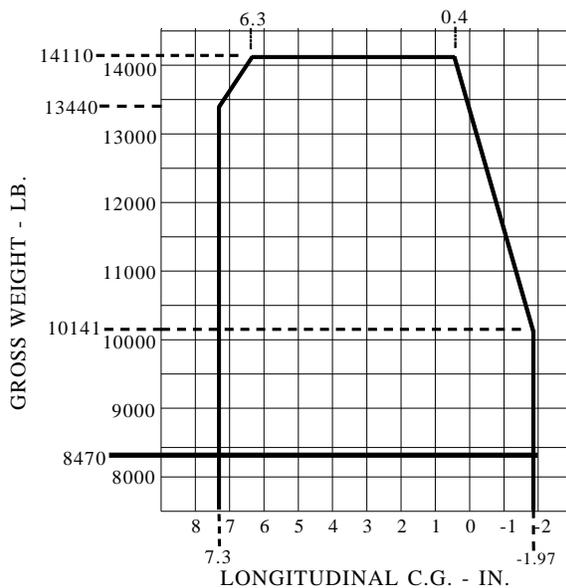
Longitudinal C.G. Limits.

7.3 in (185 mm) fore

-1.97 in (-50 mm) aft.

Straight line variation between points given - see figures:

CENTER OF GRAVITY LIMITS

Lateral C.G. Limits.

(as measured from the rotorcraft centerline):

± 4.7 in (± 120 mm) for airspeeds up to 48 KIAS (90 km/h)

± 3.5 in (± 90 mm) for airspeed above 48 KIAS

Empty Weight C.G. Limits.

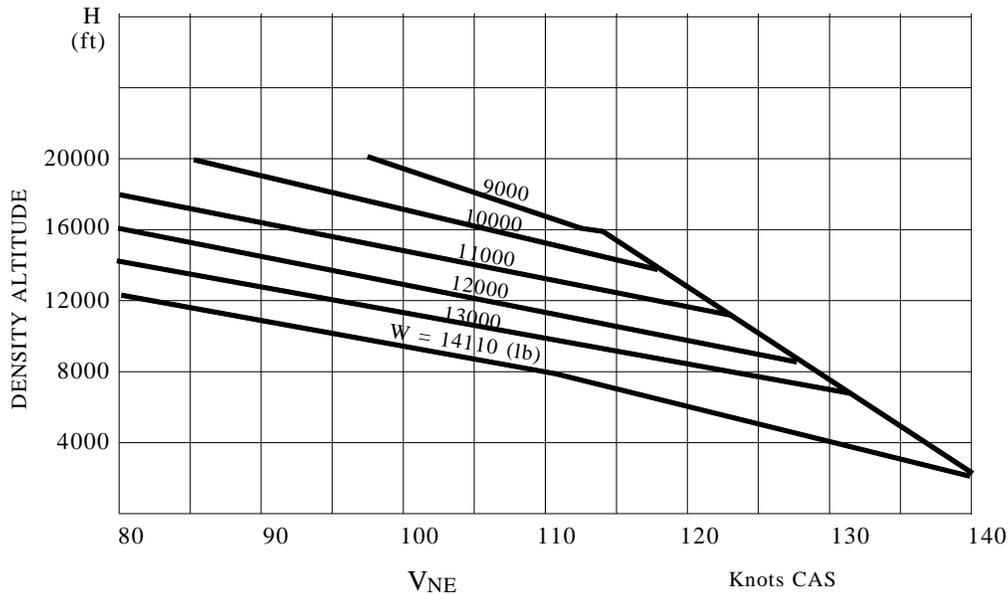
$(-3.35 \pm 0.4$ in) (-85 ± 10 mm)

Leveling Means.

A plumb line from the ceiling at No 12 frame.

Airspeed Limits.

Power-on maximum airspeed is 140 KIAS.



Note: See V_{NE} placards for variation of V_{NE} with weight, temperature and altitude (installed in the cockpit).

Weight Limitations.

For Category A and B: - Maximum: 14,100 lb (6400 kgs)
- Minimum: 8,488 lb (3850 kgs)

Altitude Limitations.

- Maximum operating pressure altitude: 19,700 ft (6000 m)
- Maximum pressure altitude at takeoff or landing site: 16,400 ft (5000 m)
- Engine restart ensured up to: 13,120 ft (4000 m)

Crew and Passenger Limitations.

Minimum Crew 1 pilot (see Note 3 for IFR operations)
Maximum Passenger 12
Luggage Compartment 396 lb (180 kg)

Flight Limits.

Day and Night VFR (see Note 3 for IFR operations)

Flight Limitation in Icing Conditions.

Flights in known icing conditions are prohibited.

Fuel.

Type: T-1 conforming GOST 10227-86;
T-2 conforming to GOST 10227-86 with PMAM or TK additives
TS-1; RT conforming GOST 10227-86;
PSM-2 conforming PN-86/C96026;
JET A-1 acc. to DERD 2494 or ASTM D 1655-83

Note: Anti-ice additives - See PZL W-3A Rotorcraft Flight Manual.

Fuel Capacity.

(a) 1720 Litres - 454.4 U.S. Gallons
(b) 8.1 Litres - 2.14 U.S. Gallons unusable

Oil.

Type: a) B-3W conforming to TU-38-101295-75

- b) CASTROL 599 conforming to DERD 2497.
- c) CASTROL 5000; CASTROL 5050;
AEROSHELL TURBINE OIL 500; ELF TURBO JET II
conf. to MILL-L-23699C

Certification Basis.

FAR 21.29, FAR 29 effective 1 February 1965, including Amendments 29-1 through 29-26.

FAR Part 36 Noise Standards Amended by Amendments 36-1 through the latest amendment in effect at the time of certification (Amdt. 36-15).

The applicant has shown compliance to FAR Part 29.923 for 2 -1/2 minute OEI ratings.

The Polish Główny Inspektorat Lotnictwa Cywilnego (General Inspectorate of Civil Aviation) originally type certificated this rotorcraft under its type certificate number BC 188. The FAA validated this product under U.S. Type Certificate Number H15EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the Polish Główny Inspektorat Lotnictwa Cywilnego (General Inspectorate of Civil Aviation).

Import Requirements.

To be eligible for operation in the United States, each aircraft manufactured under this Type Certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting civil airworthiness authority which states (in the English language): "This aircraft conforms to its U.S. type design (Type Certificate Number H15EU) and is in a condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

The FAA can issue a U.S. airworthiness certificate based on an National Aviation Authority (NAA) Export Certificate of Airworthiness (Export C of A) signed by a representative of the Polish Główny Inspektorat Lotnictwa Cywilnego (General Inspectorate of Civil Aviation) on behalf of the European Community.

The Export C of A should contain the following statement: "The aircraft covered by this certificate has been examined, tested, and found to comply with the type design approved under U.S. Type Certificate Number H15EU and to be in a condition for safe operation."

Service Information.

Service Bulletins, structural repair manuals, helicopter flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is GILC approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to type design only.

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the Polish Główny Inspektorat Lotnictwa Cywilnego

(General Inspectorate of Civil Aviation). Any such documents are accepted by the FAA and are considered FAA approved.

- Service Bulletin,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

This applies only to the acceptance of the type design data

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the helicopter for certification. In addition, the following items of equipment are required with each helicopter as specified:

FAA approved Rotorcraft Flight Manual, dated March 31, 1993 or later revisions.

NOTES

NOTE 1. Current weight and balance report including list of equipment included in the certificated empty weight and loading instructions, when necessary, must be provided for each helicopter at the time of original certification.

Weight empty - Total weight of structure, systems equipment and permanent fittings necessary to complete every helicopter version, the weight empty includes weight of fluids in hydraulic system, blade dampers and shock absorbers and extinguisher bottles as well as weight of engine and transmission oil filled up to MAX level and unusable fuel.

NOTE 2. The retirement times of certain parts are listed in Chapter 4 of the Model "PZL W-3A Helicopter. Instructions for Continued Airworthiness Maintenance Manual." Those values of retirement or service life cannot be increased without GILC Engineering Approval. In addition, information essential for proper maintenance of the helicopter is contained in the "PZL W-3A Helicopter. Instructions for Continued Airworthiness Maintenance Manual."

NOTE 3. Model PZL W-3A helicopter incorporating IFR equipment per requirements of PZL W-3A RFM Section 1 is eligible for IFR operations. Minimum flight crew: 2 (pilot and co-pilot).

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