

## Airworthiness Directive

**AD No.:** 2022-0092

**Issued:** 24 May 2022

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I Part M.A.301, or Annex Vb Part ML.A.301, as applicable, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

**Design Approval Holder's Name:**

WSK "PZL-ŚWIDNIK" S.A.

**Type/Model designation(s):**

PZL W-3A helicopters

**Effective Date:** 07 June 2022

**TCDS Number(s):** EASA.R.007

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 72 – Engine – Vibration Levels – Measurement

**Manufacturer(s):**

Wytwórnia Sprzętu Komunikacyjnego (WSK) "PZL-Świdnik" Spółka Akcyjna (S.A.)

**Applicability:**

PZL W-3A and PZL W-3AS model helicopters, all manufacturer serial numbers.

**Definitions:**

For the purpose of this AD, the following definitions apply:

**The ASB:** WSK "PZL-ŚWIDNIK" S.A. Alert Service Bulletin (ASB) No. ASB-37-21-330.

**Affected part:** Main gearbox (MGB) Part Number (P/N) 64.21.3000 and P/N 64.21.4000.

**Reason:**

Occurrences were reported where unusual engine noise and vibrations were noticed on a helicopter while reducing revolutions per minute (rpm) from flight mode to ground idle mode. Subsequently, the engine type certificate holder recommended an engine vibration test. When such a test was accomplished by an operator, it had to be aborted due to high vibrations and abnormal noise during start-up of the right-hand (RH) engine. During following investigation of the RH side MGB, which was leaking oil, it was determined that this was caused by an increased play of the pinion gear,

supported by the damaged forward bearing, which in turn led to rubbing of the front of the pinion shaft against the seal, resulting in destruction of the sealing pack.

This condition, if not detected and corrected, could lead to a fire, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, WSK "PZL-ŚWIDNIK" S.A. issued the ASB, as defined in this AD, providing instructions to measure the engine vibration levels.

For the reasons described above, this AD requires repetitive measurement of the engine vibration levels of both engines and, depending on findings, accomplishment of the applicable corrective action(s).

This AD is considered an interim action and further AD action may follow.

#### **Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

##### **Repetitive Engine Vibration Levels Measurement(s):**

- (1) Within 25 flight hours (FH) or 30 days, whichever occurs first after the effective date of this AD, and, thereafter, at intervals not to exceed the number of FH defined in Section 1.2, 1.3 or 1.4 and the related NOTE in Chapter II of the ASB, as applicable, measure the engine vibration levels of both, the RH and Left Hand, engines in accordance with the instructions of the ASB.

##### **Corrective Action(s):**

- (2) If, during any engine vibration level measurement as required by paragraph (1) of this AD, the measured vibration level of an engine exceeds the criteria for serviceability of the helicopter as defined in Section 3.1.d in Chapter II of the ASB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the ASB.

##### **Terminating Action:**

- (3) None.

##### **Parts Installation:**

- (4) From the effective date of this AD, it is allowed to replace an engine or (re)install an affected part on a helicopter, provided that before next flight after this replacement or (re)installation, as applicable, the vibration level of the affected engine is measured as required by paragraph (1) of this AD.

#### **Ref. Publications:**

WSK "PZL-ŚWIDNIK" S.A. ASB No. ASB-37-21-330 original issue dated 10 May 2022.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.



**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: WSK "PZL- Świdnik" S.A., Al. Lotników Polskich 1, 21-045 Świdnik, Poland; Telephone: (+48) 81 722 6140; E-mail: [PL-CustomerSupport.AW@leonardocompany.com](mailto:PL-CustomerSupport.AW@leonardocompany.com).

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