LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV (LVD)

D Motorer
Franklin
LVD Nr 2-3342 R1
Upphäver 2-3342

Sektion 2. Utlandstillverkad flygmateriel

TITEL: **Installation av bränslepump och bränslepumpdrivning.**

GÄLLER: Franklin motorer 6A-350-... och 4A-235-... utrustade med "diaphragm fuel pump" installerade eller levererade av WSK PZL Rzeszow.

ÅTGÄRD: Utför åtgärder enligt bifogad GILC AD Nr SP-0045-2003-B

TID FÖR ÅTGÄRD: Innan nästa flygning

UNDERLAG: Franklin Service Bulletin Nr PZL-F/72A/2002, PZL-F/73A/2002

REFERENS: GILC AD Nr. SP-0045-2003B

BESLUTSDATUM: 12 augusti 2003

LFS 2003:101

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.
Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

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BILAGA TILL LVD 3342R1
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Warsaw, 23.06.2003
day/month/year

ULC/LTT-1/045/2003/AD

Subject: Issuance of the Airworthiness Directive

NOTICE
To Whom It May Concern

This NOTICE approves and makes Mandatory the Airworthiness Directive N° **SP-0045-2003-B**, Dated: June 23, 2003.

This Airworthiness Directive concerns: Franklin Engines, models: 6A-350-... and 4A-235-... equipped Product (wyrób / model, wyposażenie, numery - product name / model , appliances, numbers) with a diaphragm fuel pump, installed or provided by WSK „PZL-Rzeszów".

Reason for the issuance of this Airworthiness Directive: Restoration of the airworthiness of the engines that are unworthy because of issuance of Airworthiness Directive No. SP-0088-2002-B.

Enclosures: 1. Airworthiness Directive N° SP-0045-2003-B;
2. Service Bulletines N° PZL-F/72A/2002 and PZL-F/73A/2002.

Chief Airworthiness Inspector

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Zygmunt MAZAN

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SERVICE BULLETIN

DATE: MARCH 2003

NUMBER: PZL-F/72A/2002

NAME – TYPE/MODEL: FRANKLIN ENGINE, models: 6A-350-C..

SERIES / NUMBER: all engines

SUBJECT: I - PLL-7 Fuel Pump,
I - PLL-7 Fuel Pump Drive,
- instruction for installation of PLL-7 Fuel Pump and Fuel Pump Drive,
I - change of the PLL-7 Fuel Pump TBO.

COMPLIANCE TIME: After receiving this Bulletin

Engineering aspects of the Bulletin are Civil Aircraft Office approved

This Bulletin is the translation from Polish language, made by WSK "PZL-Rzeszów".

A. General:

This Bulletin introduces into service as follows:

- Fuel Pump Drive - P/N 26.11.8280 - for all 6A-350-C.. models, installed as replacement for diaphragm type pump drive.

- Fuel Pump – P/N 26.11.8300 (model: PLL-7-6R) – for all 6A-350-C.. models, except 6A-350-C1L.

- Fuel Pump – P/N 26.11.8310 (model: PLL-7-6L) – for 6A-350-C1L Engine model.

This bulletin applies to both models of Fuel Pump (PLL-7-6R and PLL-7-6L) referred to here as PLL-7 Pump.

Also, this bulletin amends the TBO of the PLL-7 Fuel Pumps, both new and installed according to Bulletin PZL-F/72/2002.

B. Accomplishment Instructions

Notes:
1. Implementation of this bulletin restores the airworthiness of the engines that are unworthy because of issuing bulletin PZL-F/71/2002.
2. Procedure shown below should be accomplished by a properly certified mechanic. All applicable dimensions are shown in Installation Instructions, Doc. No. 26.0.064

1. PROCEDURES FOR REMOVAL OF FUEL PUMP, FUEL PUMP DRIVE, OIL HOSE, (Fig. 1).

a. Switch the pump fuel inlet to the off position;

b. Remove all items that make it difficult to access the pump;

c. Tag the inlet and outlet lines appropriately to avoid improper attachment during assembly. Disassemble fuel inlet/outlet lines from the pump.

d. Unscrew both sides of 26.11.0330 Hose that supplies oil to pump drive, and 26.11.0438 Clamp.

e. Undo four 26.21.0050 ¼"-28" Elastic Stop Nuts.

f. Remove the "fuel pump drive" and "fuel pump".

g. Remove 26.11.0118 Spacer, clean flange surface and its mating surface on drive cover from residuals of 26.11.0137 Gasket.

h. 26.21.0168 Elbow is located at By-pass valve. Because the oil line that lubricate the plunger pump drive is now removed, plug the unused attachment opening by the 26.11.8330 "Cup nut" (included in replacement set).

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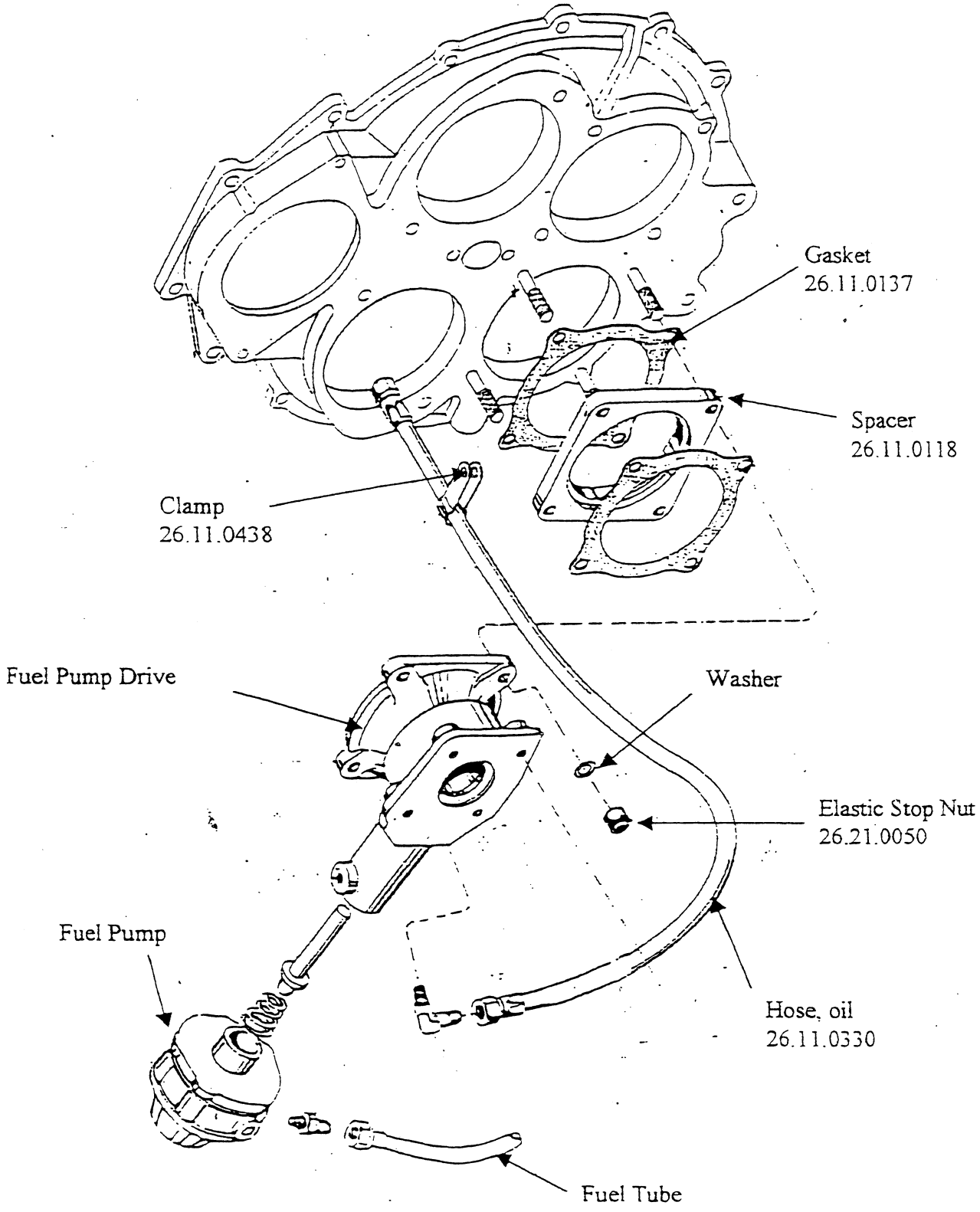


2. PROCEDURES FOR INSTALLATION OF FUEL PUMP AND FUEL PUMP DRIVE, (Fig. 2)

i. Apply an aviation grade sealing compound (e.g. „Hylomar Aerograde") on both sides of 26.11.0137 Gasket.

j. Place 26.11.0137 Gasket, 26.11.0118 Spacer, and 26.11.0137 Gasket on the engine.

k. Install replacement Pump Drive and Fuel Pump on the engine.

NOTE: Make sure that the rib marked "TOP" is installed in the upward position (see figure #2). With this installation arrangement, the oil opening is positioned vertically.

l. Install four 26.21.0021 Washers and four 26.21.0050 ¼"-28" Elastic Stop Nuts, torque to 0.69-0.97 kGm (5-7 Ft lbs).

m. Remove the shipping cups from the fuel inlet, outlet, drainage locations. Assembly the fuel inlet/outlet attachments into their appropriate openings of the fuel pump and drainage lines (see Fig. on page 7.7) as recommended by airframe manufacturer for installation of PLL-7 Pump. This can be done before installation of the pump on engine.

n. Connect airframe fuel and drainage lines.

o. Run the engine on ground. Check visually the fuel pump, and fuel and oil connections that were replaced during the above procedure. Pay attention for possible leak of fuel and oil.

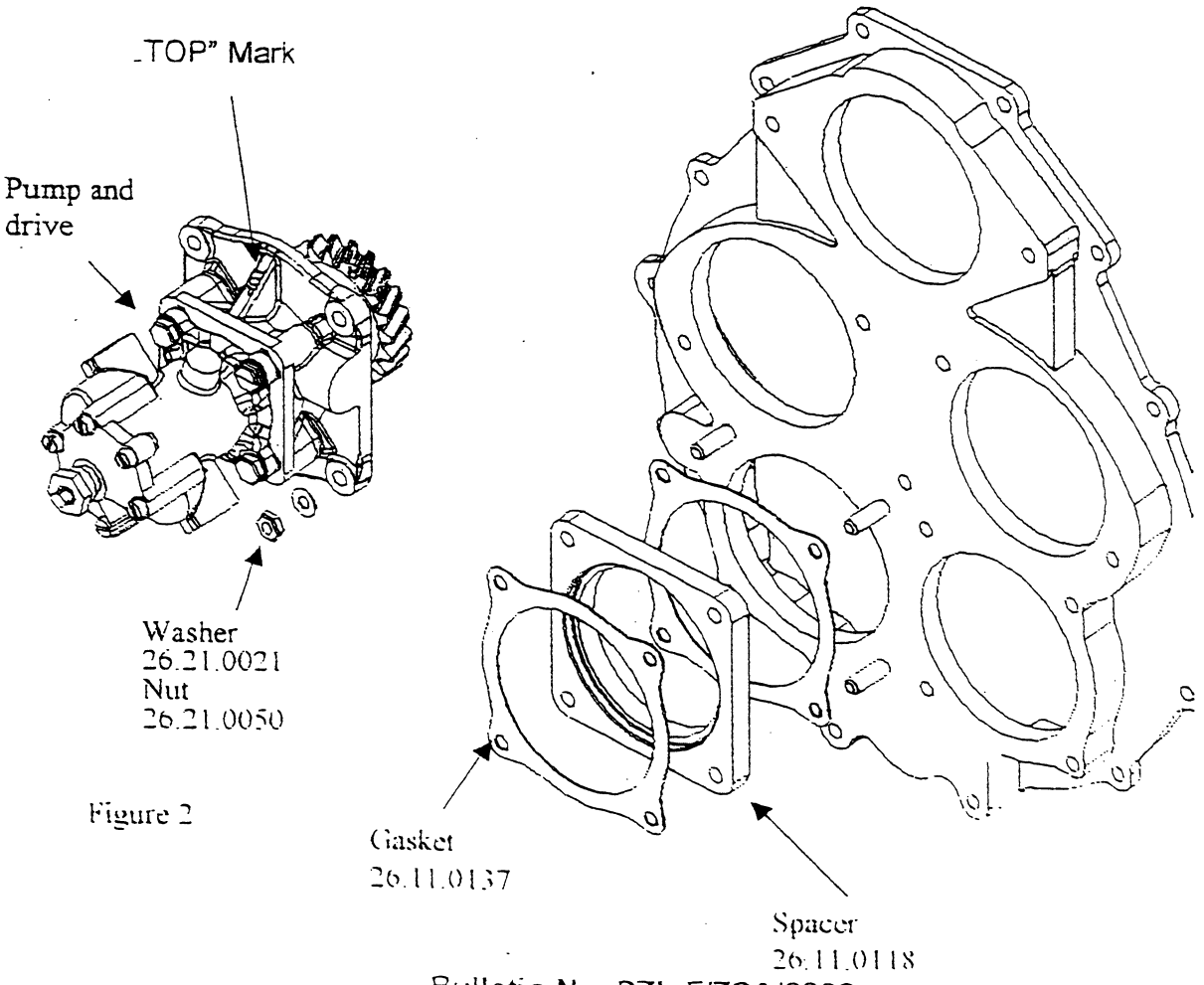
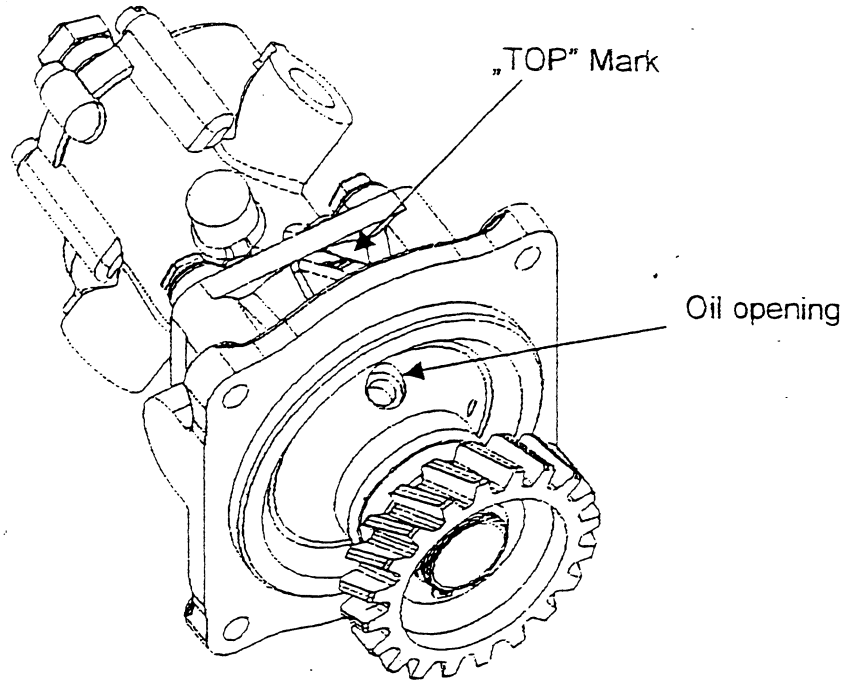


Figure 2



3. ENTRY LOG AND UPDATE NAME PLATE

3.1 After completion of this work, an engine log entry is required stating that the "engine has been modified according to Bulletin PZL-F/72/2002".
Vibropen or stamp the suffix letter /**S** after the engine serial number on the engine name plate at field: No.
Example:
1261110012/**S**
911191112/**S**

3.2 New engines assembled with sliding vane pump drive, will have the letter "S" printed at the 6th position of the engine S/N.
Example:
01112 **S** 001

C. Material Information:

1. The sliding vane fuel pump and fuel pump drive will be delivered free of charge for replacement on those engines for which Bulletin PZL-F/71/2002 applies and request for fuel pump replacement has been made as detailed in a/m Bulletin PZL-F/71/2002.

2. The pump replacement kit consists of:
   - Pump drive and fuel pump assembly in "ready for replacement" condition.
   - 26.11.0137 Gasket, 2 pcs
   - 26.11.8330 Cup nut

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3. PLL-7 Pump data

- Type: Sliding Vane
- Manufacturer: PZL-Hydral S.A., Polska
- Calendar life: 10 years
- TBO: 1500 hrs.
- Weight: .8 kg (1.76 lb)
- Installation requirements:
  = Pump has internal by-pass to allow the fuel to flow through the pump in case of pump failure conditions. By-pass pressure drop: 0.01 Mpa max (1.45 psi).
  = NOTE. PLL-7 pump in non-rotating condition allows fuel to flow in reverse direction. Thus, if aircraft fuel system provides that both: the PLL-7 pump and emergency pump are installed in parallel, install a one way valve down-steam of the PLL-7 pump.
- Pump In / Out connections: – NPTF 1/4-18.
- Pump fuel drain connection – NPTF 1/8-27
- Envelope needed for removal / installation of the pump: 20 mm (.8 in) backward.

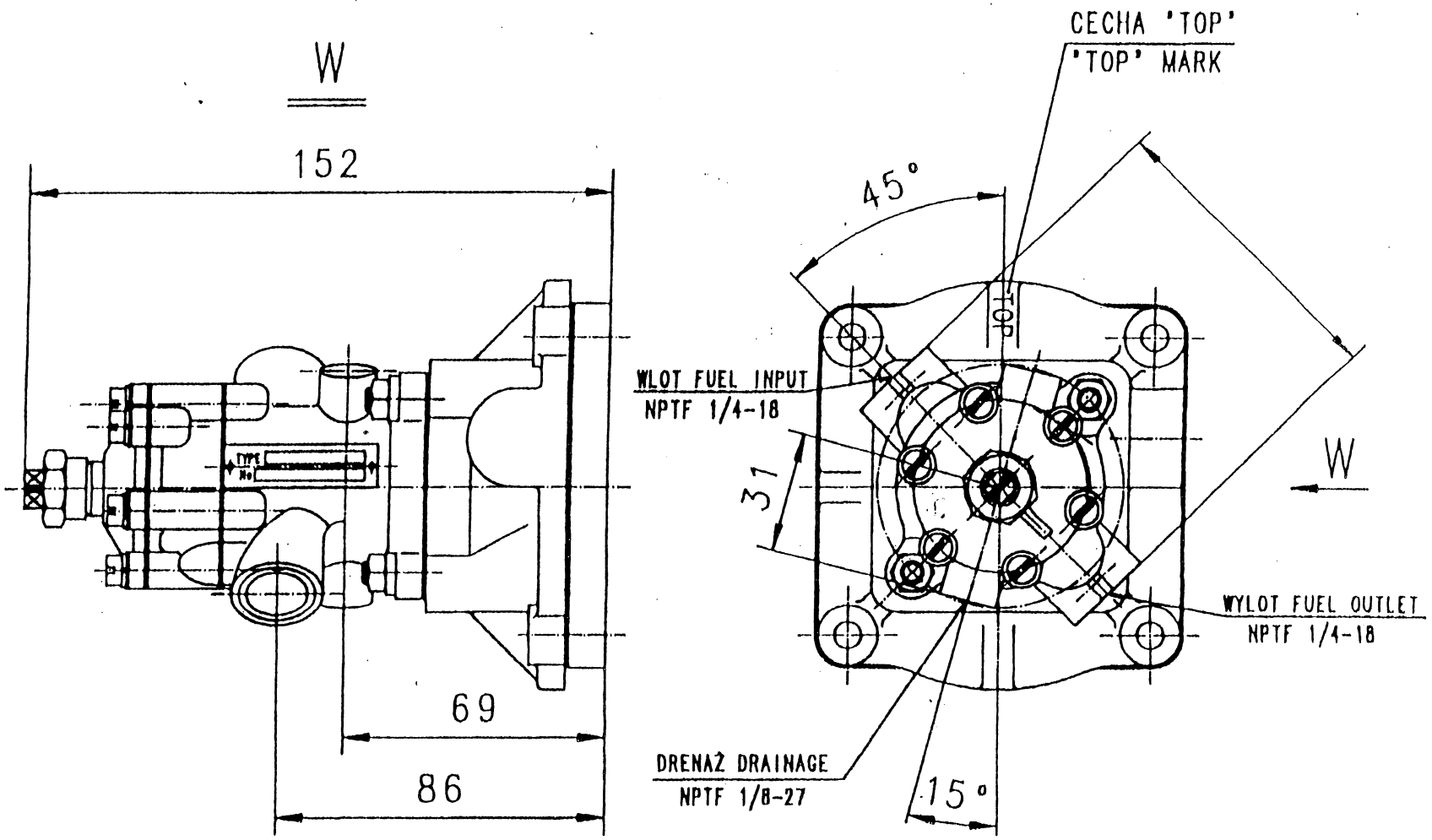
D. Other Publications Affected:

Operation of the engines with PLL-7 Fuel Pump should comply to instructions having pages dated September 2002 (at page 18, Doc. No. 26.0.064, no date is printed) that were distributed under Bulletin PZL-F/72/2002:

Description, Operation and Service Manual, Doc. No. 26.0.197, pages:
Chapter: "Up-to-date pages list", page 1,2
Chapter: "Contents", page 1, and "Introduction"
Remaining chapters, pages: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.21, 1.22, 1.23, 1.24, 1.25, 2.5, 4.1, 4.2, 4.4, 5.18, 7.3, 7.4, 8.1, 8.11.

Installation Instructions, Doc. No. 26.0.064, pages: 23 and 35.
Pages: "Log of Revisions", 2, 3, 4, 5, 9, 10, 11, 12, 18, 22, 41, 42, 43.

E: This Bulletin No PZL-F/72A/2002 increases the TBO of PLL-7 fuel pump from 500 hrs to 1500 hrs and replaces the Bulletin No PZL-F/72/2002.



ALL DIMENSIONS IN MM UNLESS OTHERWISE SHOWN

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