79

LUBRICATION

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LUBRICATION

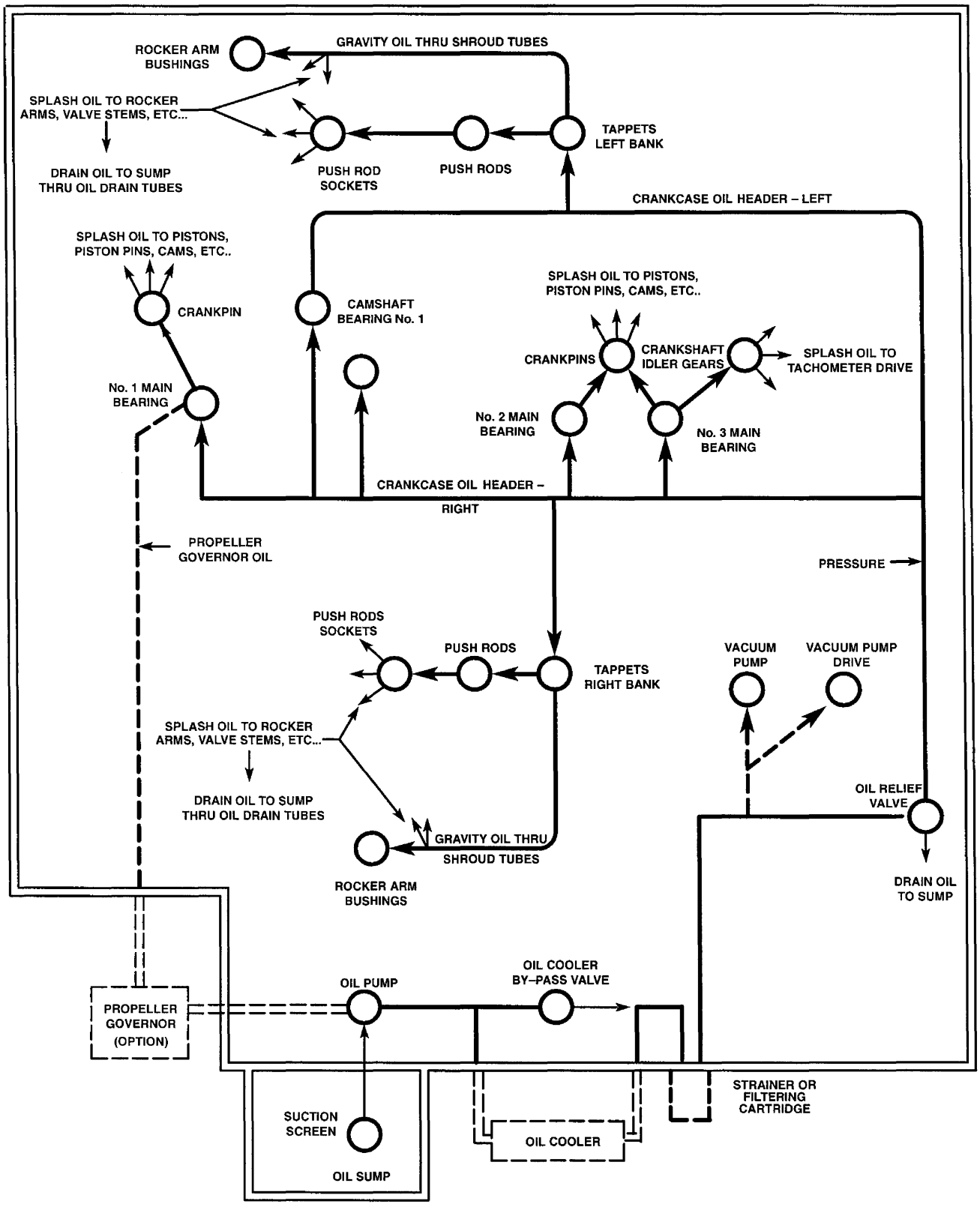
DESCRIPTION AND OPERATION

1. GENERAL (Figures 1, 2, 2A, 2B and 2C)

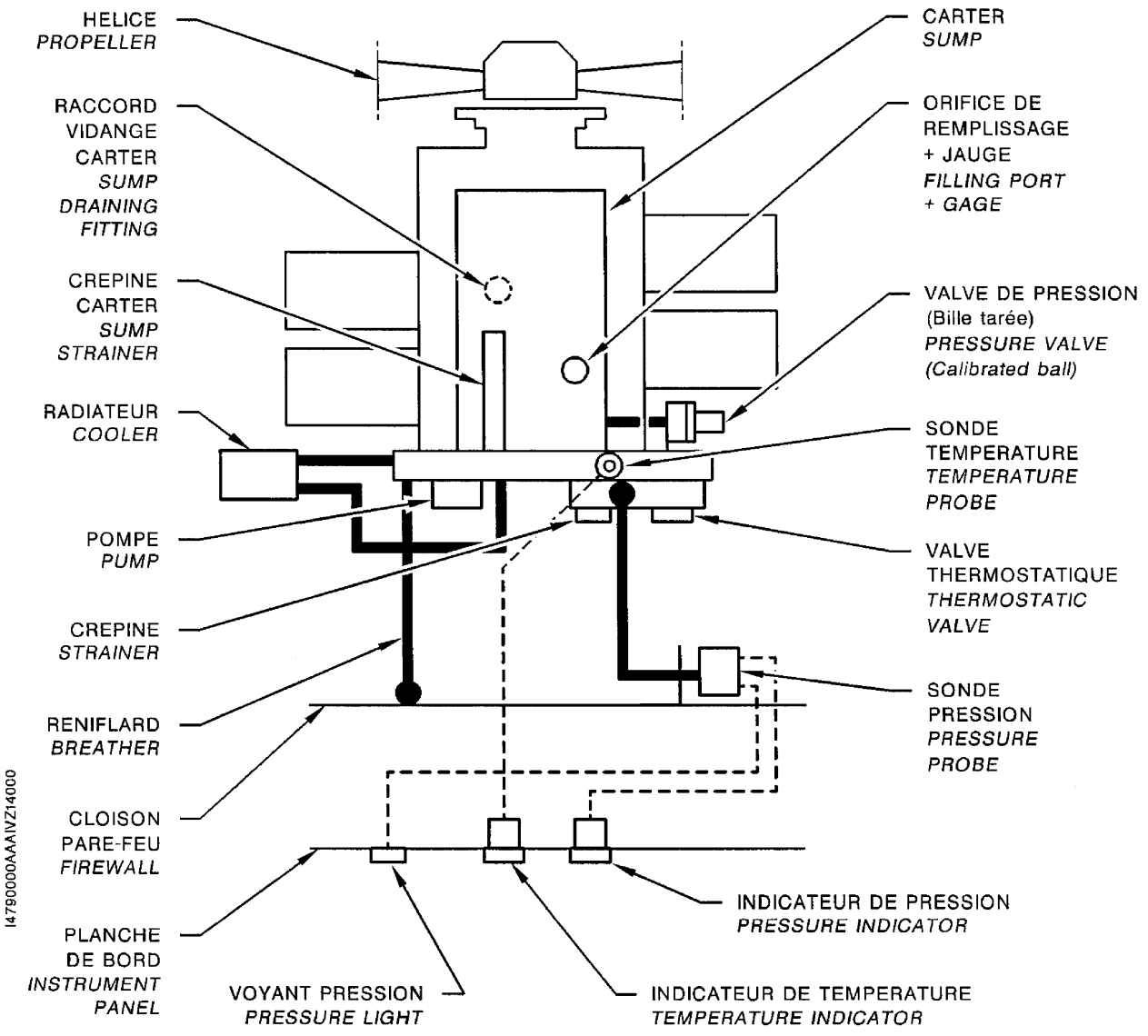
The purpose of the engine lubrication system is to supply pressurized oil to the power plant which lubricates and cools moving parts. This system is supplied by a pump located on the engine rear table. An oil sump, located at the base of the engine, collects oil through a strainer and a strainer type filter or a disposable filtering cartridge, located on the rear table.

The oil system consists of :

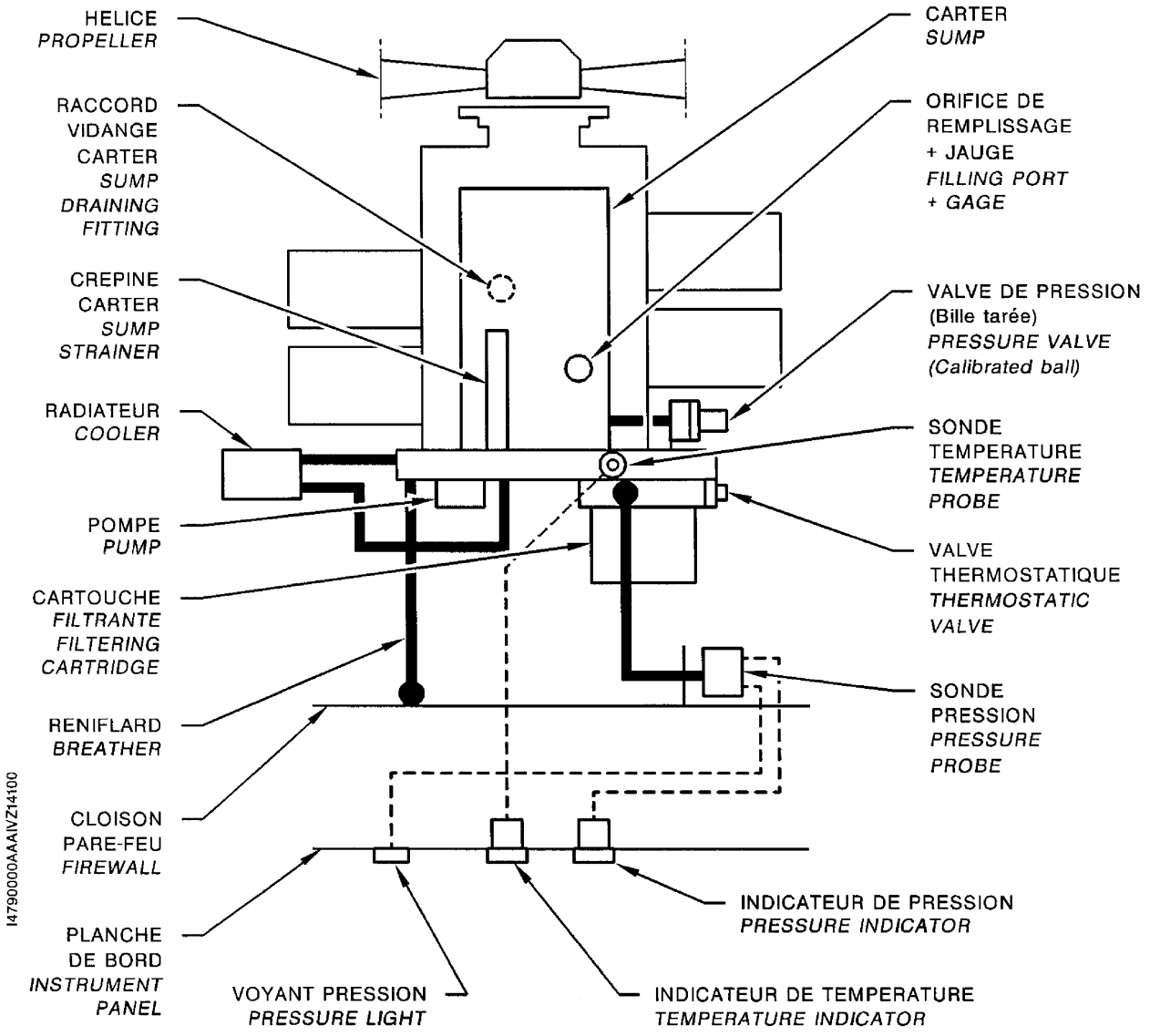
- storage – refer to 79–10–00,
- distribution – refer to 79–20–00,
- indicating system – refer to 79–30–00.



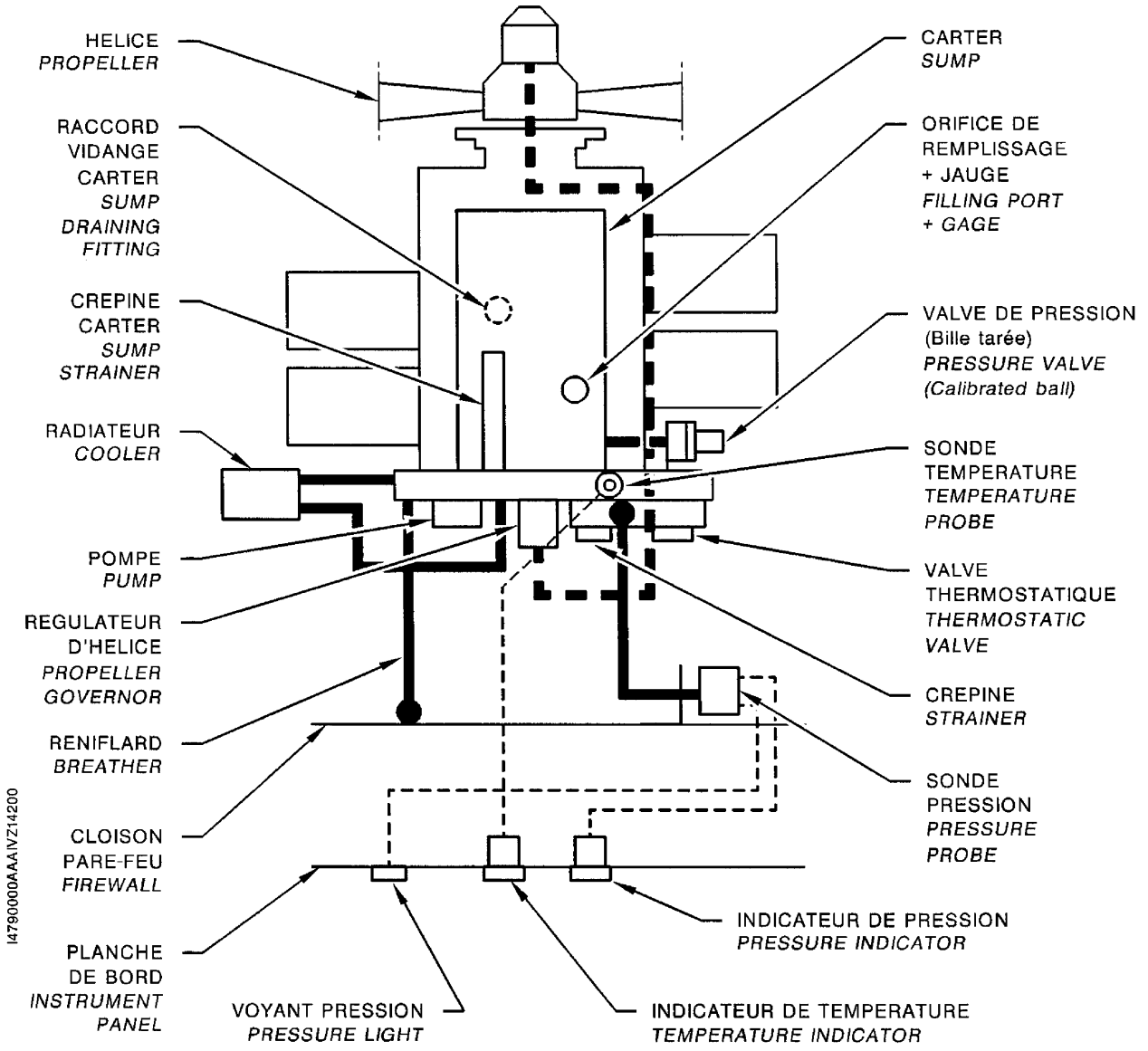
Engine lubrication – Schematic
Figure 1



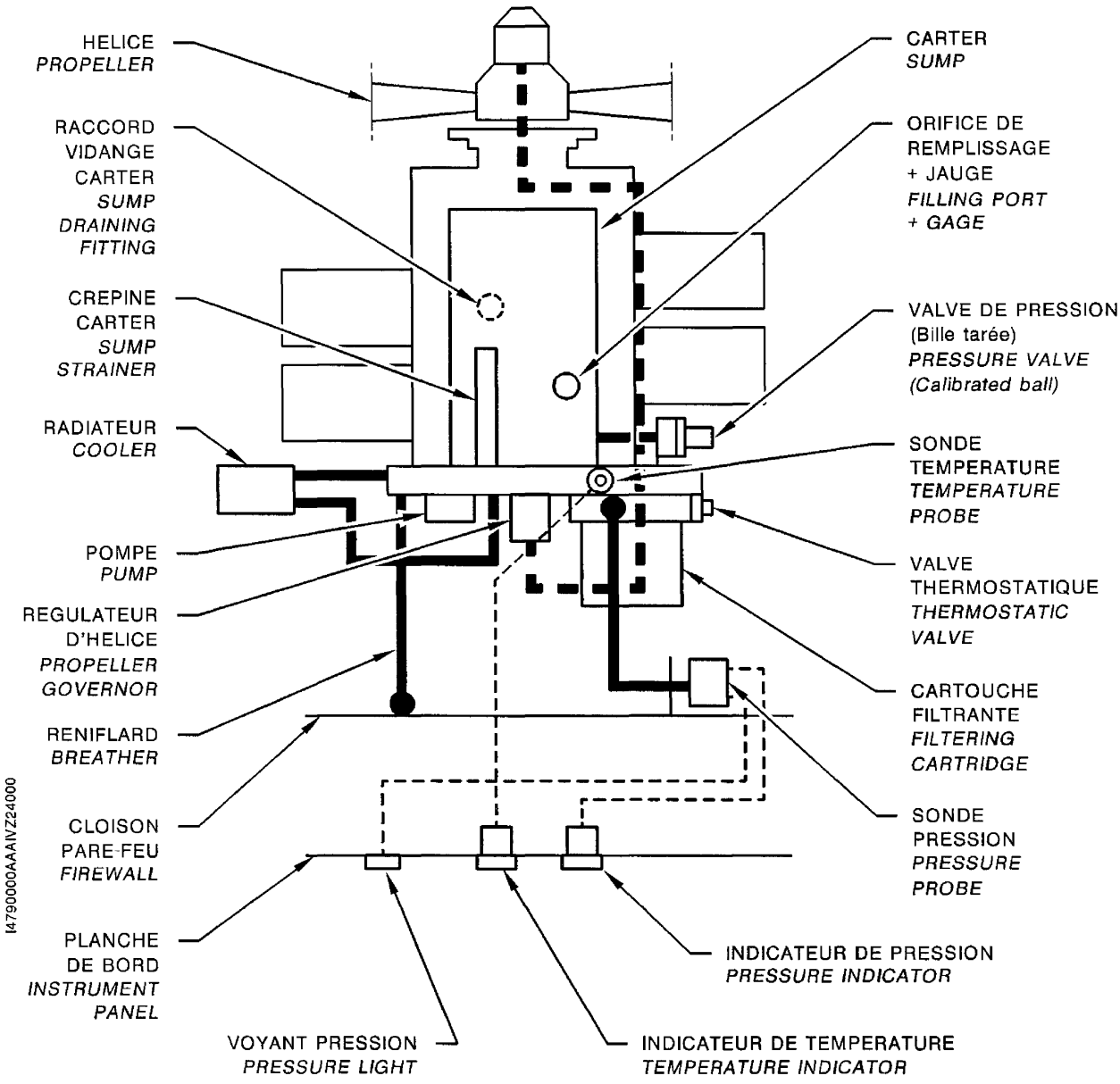
Lubrication – Schematic
Figure 2 – S / N 1 – 1569 Pre–Kit OPT10 918400 with fixed pitch propeller



Lubrication – Schematic
Figure 2A – S / N 1570 – 9999
S / N 1 – 1569 Post–Kit OPT10 918400 with fixed pitch propeller



Lubrication – Schematic
Figure 2B – S / N 1 – 764, 766 – 878 Pre–Kit OPT10 918400 with constant speed propeller



Lubrication – Schematic
Figure 2C – S / N 1 – 764, 766 – 878 Post–Kit OPT10 918400 with constant speed propeller

STORAGE

DESCRIPTION AND OPERATION

1. GENERAL

The storage permits the engine oil filling and drainage.

The system consists of :

- oil sump,
- quick drain valve,
- gage.

2. LOCATION (Figure 1)

COMPONENT	QTY	AREA	ACCESS DOOR	REFERENCE
Oil sump	1	130	131	79-10-02
Quick drain valve	1	130	131	79-10-01
Gage	1	120	122	79-10-00

3. DESCRIPTION

A. Oil sump

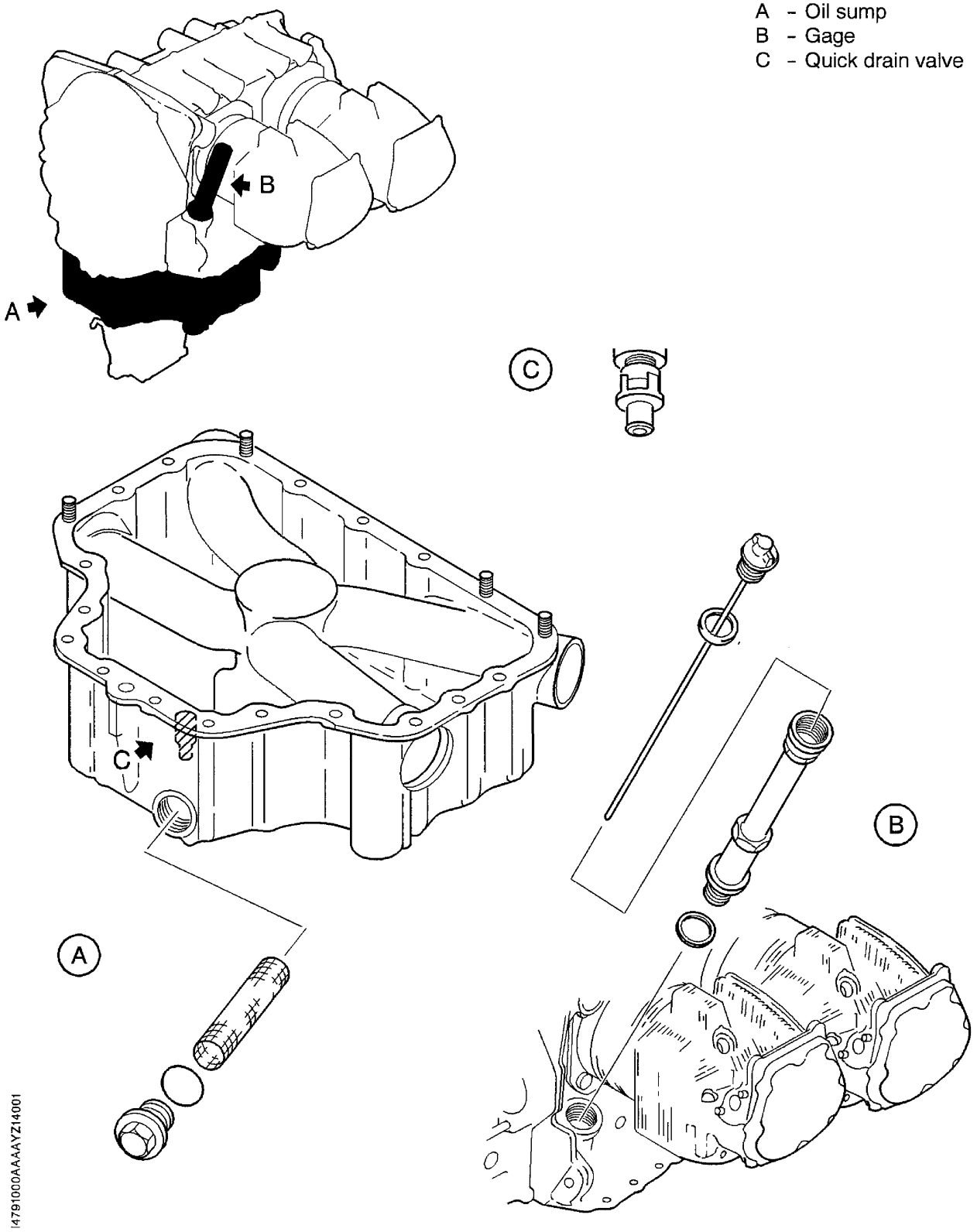
The sump is the element of the system located under the engine that collects and stores oil necessary for engine operation. This sump is equipped with a strainer-type oil filter on its rear area.

B. Quick drain valve

A valve located under the engine casing allows a quick drain of the latter. It is accessible by a door (if installed) on the lower engine cowling or by removal of the latter.

C. Gage

A door located on the upper engine cowling allows access to the filler neck and to the gage fixed on the cap. The latter is calibrated in U.S. quarts and allows a visual inspection of the oil level in the engine casing.



Storage - Location of components
Figure 1

QUICK DRAIN VALVE

REMOVAL / INSTALLATION

1. REMOVAL OF QUICK DRAIN VALVE (Figure 401)

A. Tools and consumable materials

None

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Remove the engine cowlings - refer to 71-10-01.
2) Drain the oil system - refer to 12-12-02.
3) Cut off and discard lockwire (1).
4) Remove valve (2).

2. INSTALLATION OF QUICK DRAIN VALVE (Figure 401)

A. Tools and consumable materials

- Petrolatum (TB 04-003)
- Stainless steel lockwire, dia. 0.032 in (0.8 mm)
- Torque wrench 0 to 265 lbf.in (0 to 30 N.m)

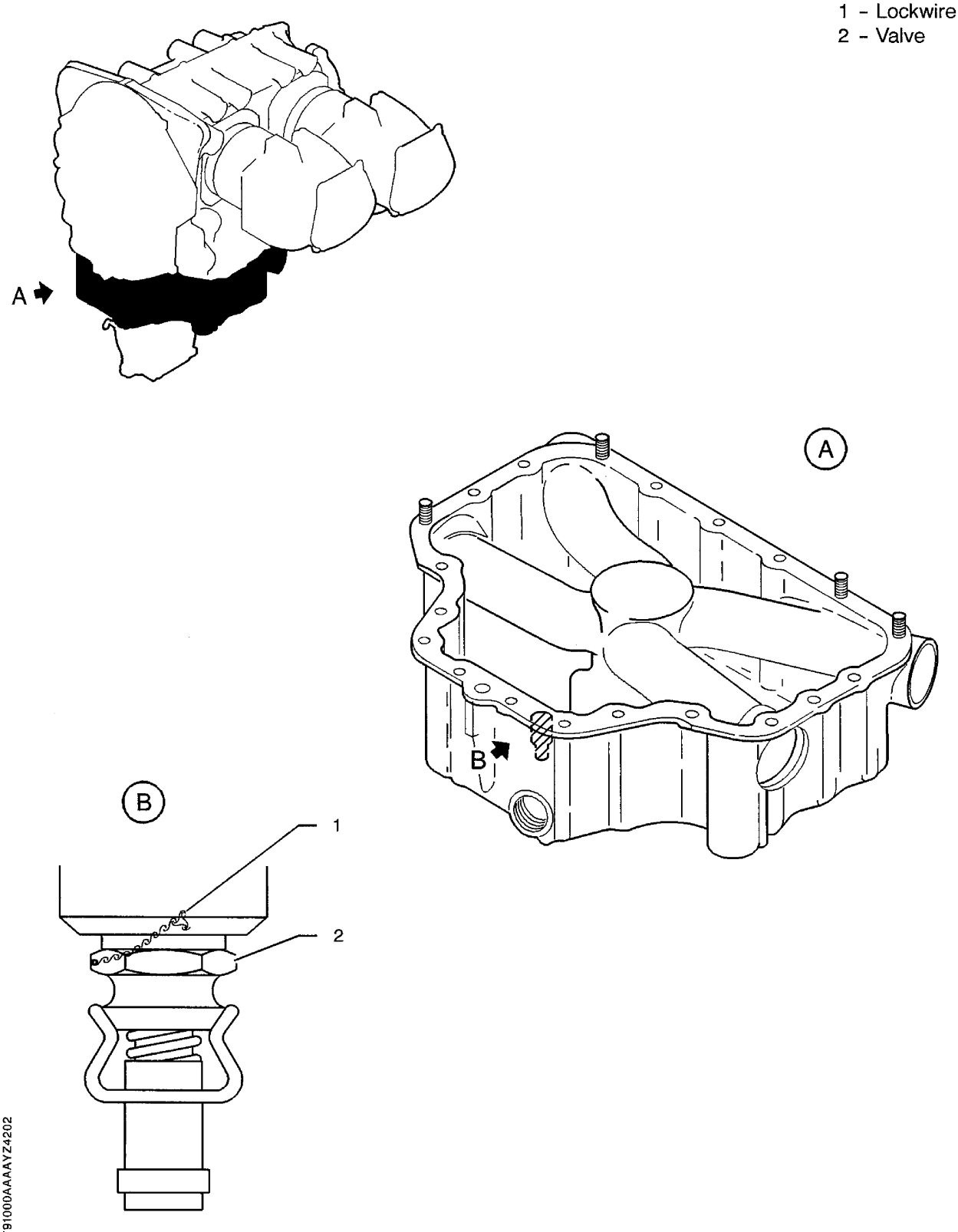
B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Lubricate the thread of valve (2) with petrolatum (TB 04-003).
2) Install valve (2). Torque - refer to 20-00-01.
3) Lockwire valve (2).
4) Make sure all the tools and materials are removed and the work area is clean and free from debris.
5) Install the engine cowlings - refer to 71-10-01.
6) Fill the oil system - voir 12-12-01.
7) Check for leaks.

1 - Lockwire
2 - Valve



Quick drain valve - Removal / Installation
Figure 401

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OIL SUMP

REMOVAL / INSTALLATION

1. REMOVAL OF OIL SUMP STRAINER (Figure 401)

A. Tools and consumable materials

None

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Remove the engine cowlings - refer to 71-10-01.

2) Drain the oil system - refer to 12-12-02.

3) Cut off and discard the lockwire.

4) Loosen and remove plug (3).

5) Remove strainer (1) and discard seal (2).

CAUTION : CHECK FOR METAL PARTICLES IN THE STRAINER. THE PRESENCE OF METAL PARTICLES INDICATES ENGINE DAMAGE.

6) Check for metal particles in strainer (1).

NOTE : If an abnormal quantity of metal particles is detected during strainer inspection, TEXTRON LYCOMING recommends a spectrograph oil analysis to monitor engine component wear rates. Refer to Service Bulletin No. 480 at the latest edition.

2. INSTALLATION OF OIL SUMP STRAINER (Figure 401)

A. Tools and consumable materials

- Cleaning agent (TB 11-003)
- Stainless steel lockwire, dia. 0.032 in (0.8 mm)

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Clean strainer (1) with cleaning agent (TB 11-003), replace if necessary.

2) Install strainer (1) and a new seal (2) on plug (3).

3) Install and lockwire plug (3).

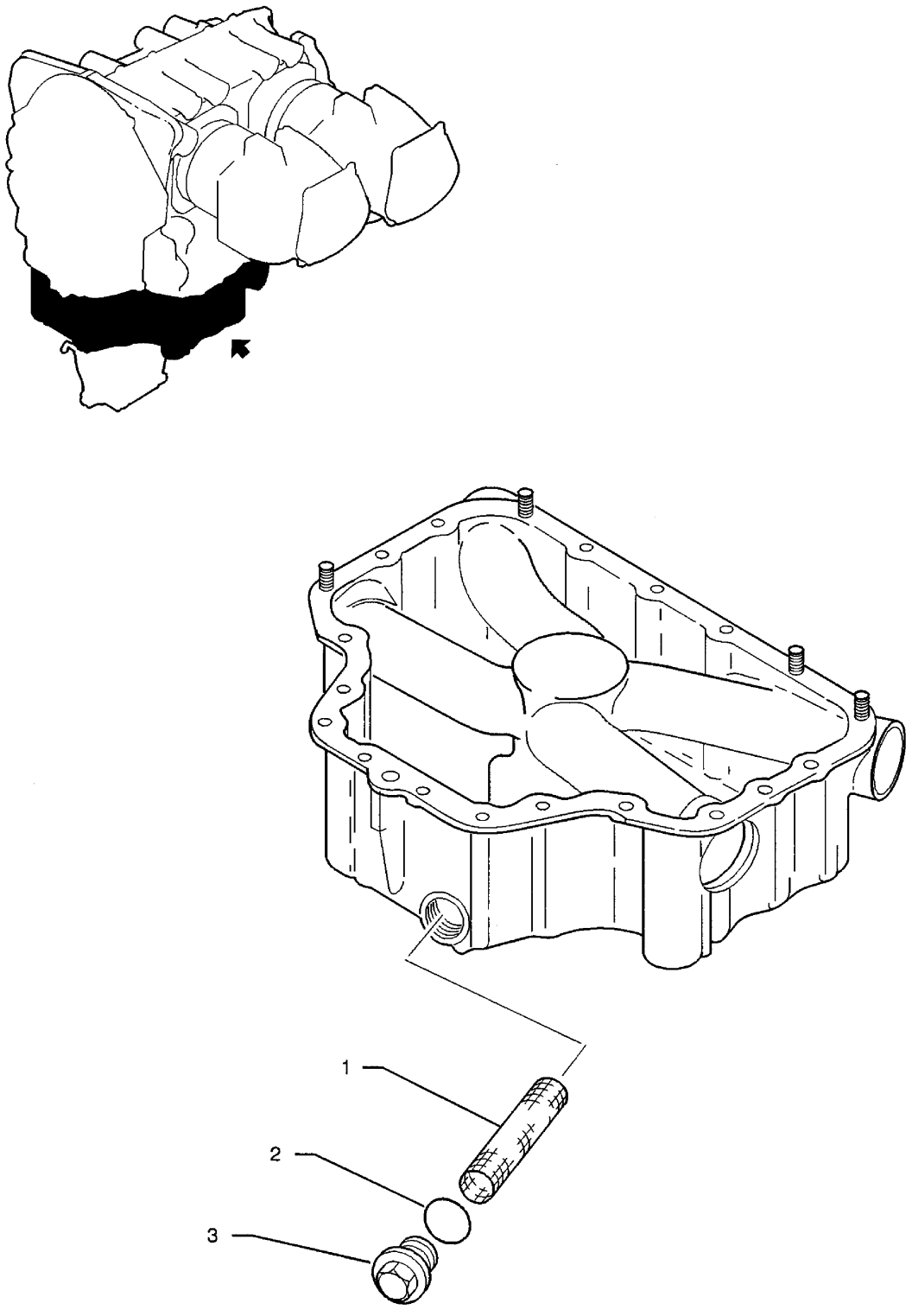
4) Make sure all the tools and materials are removed and the work area is clean and free from debris.

5) Install the engine cowlings - refer to 71-10-01.

6) Fill the oil system - refer to 12-12-01.

7) Check for leaks.

1 - Strainer
2 - Seal
3 - Plug



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Oil sump strainer - Removal / Installation
Figure 401

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DISTRIBUTION

DESCRIPTION AND OPERATION

1. GENERAL

The distribution cools and purifies the engine oil.

The system consists of :

- oil cooler,
- strainer,
- breather,
- oil pump,
- oil filter by-pass,
- overpressure relief valve.

2. LOCATION (Figures 1 and 2)

COMPONENT	QTY	AREA	ACCESS DOOR	REFERENCE
Oil cooler	1	120	121	79-20-01
Strainer	1	120	121	79-20-02
Breather	1	120	121	79-20-00
Oil pump	1	130	131	79-20-00
Oil filter by-pass	1	120	121	79-20-00
Overpressure relief valve	1	120	121	79-20-00

3. DESCRIPTION

A. Oil cooler

The cooler is the element of the system which cools the engine oil by means of a section of the engine cooling air duct which runs through it.

The oil cooling system comprises a thermostatic valve which allows cold oil to bypass the oil cooler. As the oil temperature increases, the valve opens slowly, thus directing oil to the cooler. This device prevents cold oil from damaging the cooler and helps to reduce the time required to warm the oil.

B. Strainer

The removable strainer-type oil filter is the part of the system which purifies the engine oil. It is located on the engine upper section.

C. Breather

The breather, located on the L.H. upper section of the engine rear table, is a venting system that prevents an engine sump assembly overpressure by exhausting oil vapours.

A hose connects this breather to a pipe attached to the firewall at L.H. side of power plant. This pipe opens on the engine cowling lower section.

D. Oil pump

The oil pump provides oil necessary for lubrication and cooling of moving parts. It is a gear and a constant-flow one. It is located at the lower section of the engine rear table ; it is accessible only after removal of the latter.

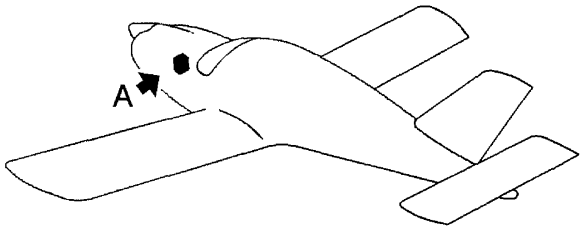
E. Oil filter by-pass

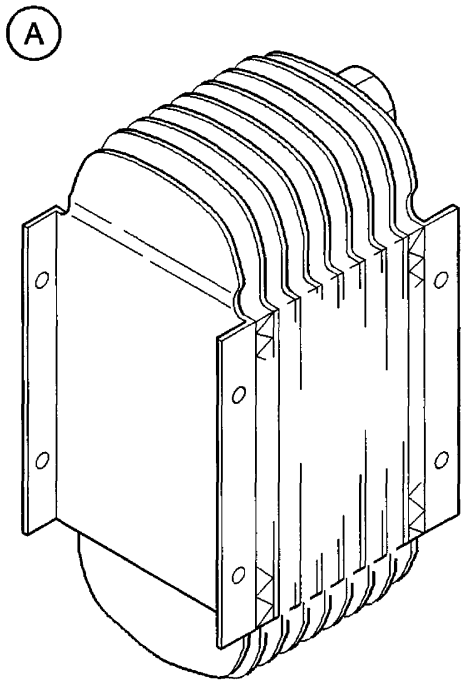
If the strainer is clogged, oil pressure increase leads to the opening of the by-pass which deviates oil flow. It is screwed on the oil filter housing.

F. Overpressure relief valve

The overpressure relief valve, located behind the last R.H. cylinder (in front of the rear table), controls the oil pressure by means of a calibrated ball by by-passing oil toward the engine sump.

A – Oil cooler





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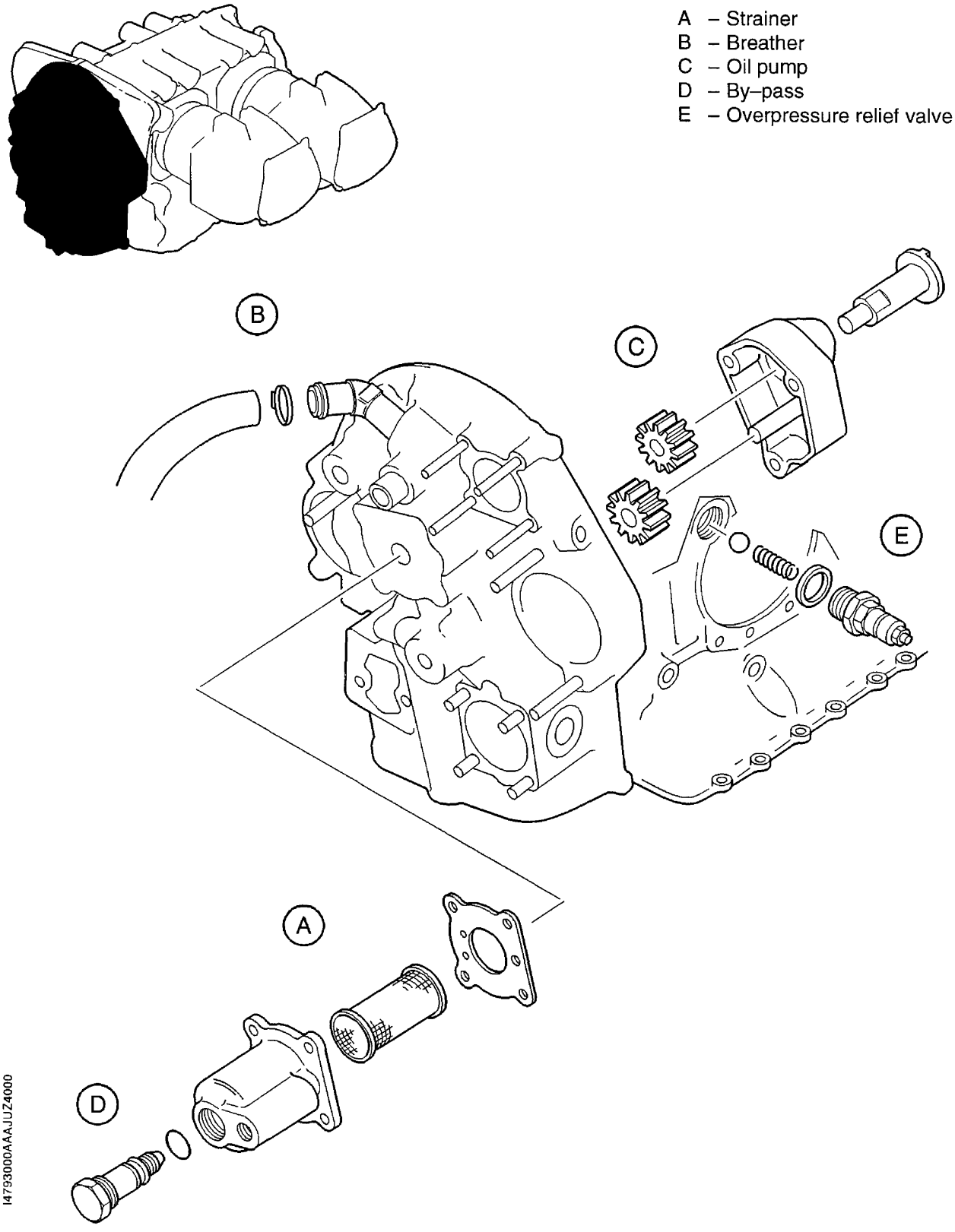
Distribution – Location of components
Figure 1



Distribution – Location of components
Figure 2

DISTRIBUTION

DESCRIPTION AND OPERATION

1. GENERAL

The distribution cools and purifies the engine oil.

The system consists of :

- oil cooler,
- filtering cartridge,
- breather,
- oil pump,
- oil filter by-pass,
- overpressure relief valve.

2. LOCATION (Figures 1 and 2)

COMPONENT	QTY	AREA	ACCESS DOOR	REFERENCE
Oil cooler	1	120	121	79-20-01
Filtering cartridge	1	120	121	79-20-02
Breather	1	120	121	79-20-00
Oil pump	1	130	131	79-20-00
Oil filter by-pass	1	120	121	79-20-00
Overpressure relief valve	1	120	121	79-20-00

3. DESCRIPTION

A. Oil cooler

The cooler is the element of the system which cools the engine oil by means of a section of the engine cooling air duct which runs through it.

The oil cooling system comprises a thermostatic valve which allows cold oil to bypass the oil cooler. As the oil temperature increases, the valve opens slowly, thus directing oil to the cooler. This device prevents cold oil from damaging the cooler and helps to reduce the time required to warm the oil.

B. Filtering cartridge

The filtering cartridge is the part of the system which purifies the engine oil. It is located on the engine rear table upper section.

C. Breather

The breather, located on the L.H. upper section of the engine rear table, is a venting system which prevents an engine sump assembly overpressure by exhausting oil vapours.

A hose connects this breather to a pipe attached to the firewall at L.H. side of the power plant. This pipe opens on the engine cowling lower section.

D. Oil pump

The oil pump provides oil necessary for lubrication and cooling of moving parts. It is a gear and a constant-flow pump. It is located at the lower section of the engine rear table ; the pump is accessible only after removal of the engine rear table.

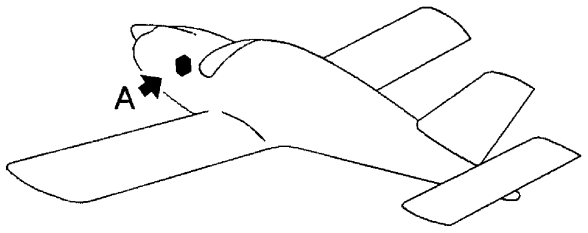
E. Oil filter by-pass

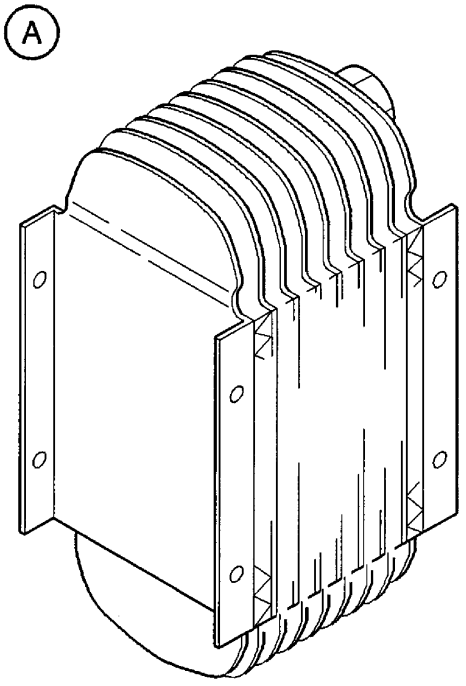
If the filtering cartridge is clogged, oil pressure increase leads to the opening of the by-pass which deviates oil flow. It is located near the filtering cartridge.

F. Overpressure relief valve

The overpressure relief valve, located behind the last R.H. cylinder (in front of the rear table), controls the oil pressure by means of a calibrated ball by by-passing oil toward the engine sump.

A – Oil cooler





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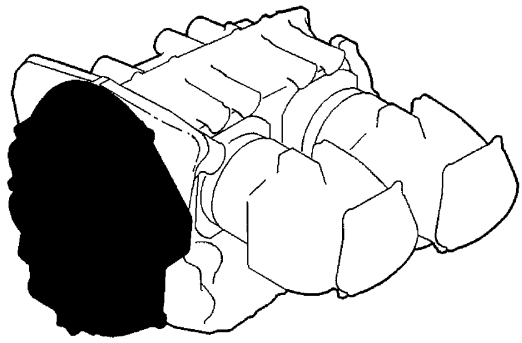
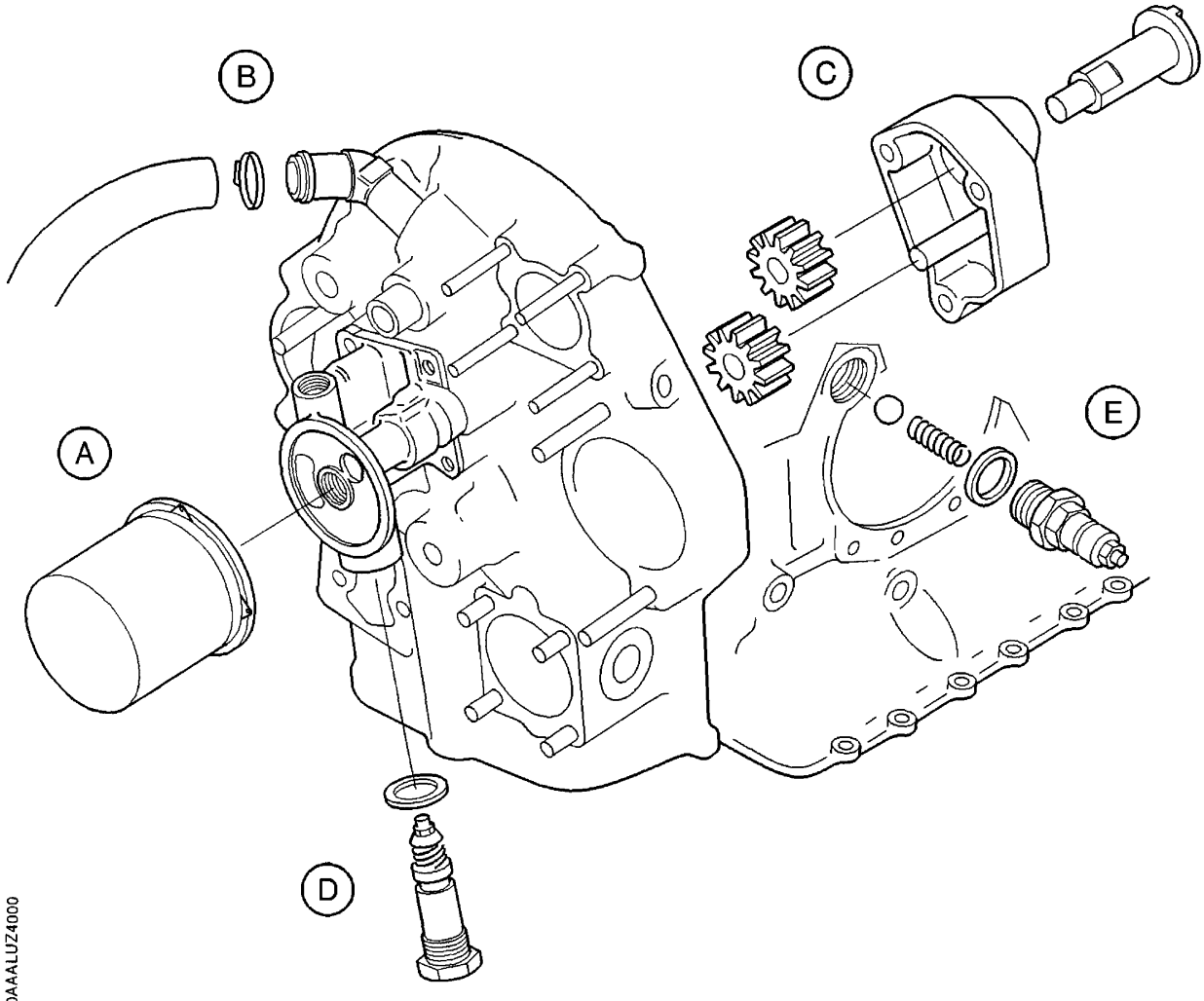
Distribution – Location of components
Figure 1



A – Filtering cartridge
B – Breather
C – Oil pump
D – By–pass
E – Overpressure relief valve



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Distribution – Location of components
Figure 2

OIL COOLER

REMOVAL / INSTALLATION

1. REMOVAL OF OIL COOLER (Figures 401, 401A, 401B and 401C)

A. Tools and consumable materials

- Blanking caps

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

1) Remove the engine cowlings - refer to 71-10-01.

2) Drain the oil system - refer to 12-12-02.

3) Hold elbows (8) using a thin spanner, disconnect hoses (1) and (3). Blank off.

4) Hold cooler (4) and remove four nuts (5), washers (7), spacers (10) and threaded rods (6). Discard nuts (5).

5) Remove cooler (4).

6) Remove, if necessary, the fittings from cooler (4).

S / N 1 - 1822, 1824, 1825, 1827 - 1842 Pre-Kit OPT10 923500

a) Hold ends (9) using a thin spanner and remove elbows (8).

S / N 1823, 1826, 1843 - 9999 and S / N 1 - 1822, 1824, 1825, 1827 - 1842 Post-Kit OPT10 923500

a) Hold unions (12) using a thin spanner and remove elbows (8).

b) Hold ends (9) using a thin spanner and remove unions (12).

7) Blank off cooler (4) ports and fittings.

2. INSTALLATION OF OIL COOLER (Figures 401, 401A, 401B and 401C)

A. Tools and consumable materials

- Loctite (TB 09-906)
- Cleaning agent (TB 11-003)
- Red paint
- Oil (TB 03-902)
- Clean lint-free cloths
- Torque wrench 0 to 450 lbf.in (0 to 50 N.m)

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Remove the blanking caps.

2) Remove plastex or loctite from cooler (4) ports, rinse the latter with cleaning agent (TB 11-003) and dry it.

3) Position the cooler on L.H. rear bulkhead (11) and secure it with the four threaded rods (6), washers (7), spacers (10) and new nuts (5).

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4) If removed, install cooler (4) elbows.

   a) Clean and degrease elbows (8), coat the thread on cooler (4) side with loctite (TB 09-906).

   b) Position elbows (8) on cooler (4), hand-tighten up to contact.

   c) Hold ends (9) using a thin spanner and tighten elbows (8) by 1/2 turn minimum.

   d) Proceed with tightening, if necessary, to direct elbows (8) correctly.

5) Hold elbows (8) using a thin spanner to avoid any distortion of cooler (4) fins - see Details A and B, when tightening hoses (1) and (3) on elbows. Torque - refer to 20-00-01.

6) Mark ends (9), elbows (8) and hoses (1) and (3) with a red paint line.

S / N 1823, 1826, 1843 - 9999 and S / N 1 - 1822, 1824, 1825, 1827 - 1842 Post-Kit OPT10 923500

4) If removed, install cooler (4) fittings.

   a) Clean and degrease unions (12), coat the thread on cooler (4) side with loctite (TB 09-906).

   b) Hold end (9) of cooler (4) using a thin spanner to avoid any distortion of cooler fins when tightening and screw unions (12). Torque - refer to 20-00-01.

   c) Lubricate elbows (8) threads with oil (TB 03-902) and screw them on unions (12) without tightening.

5) Screw hoses (1) and (3) nuts on elbows (8) without tightening.

6) Position elbows (8) to ensure free routing of hoses (1) and (3).

7) Hold elbows (8) with a thin spanner and torque hoses (1) and (3) and elbows (8) nuts - refer to 20-00-01.

8) Mark ends (9), unions (12), elbows (8) and hoses (1) and (3) with a red paint line.

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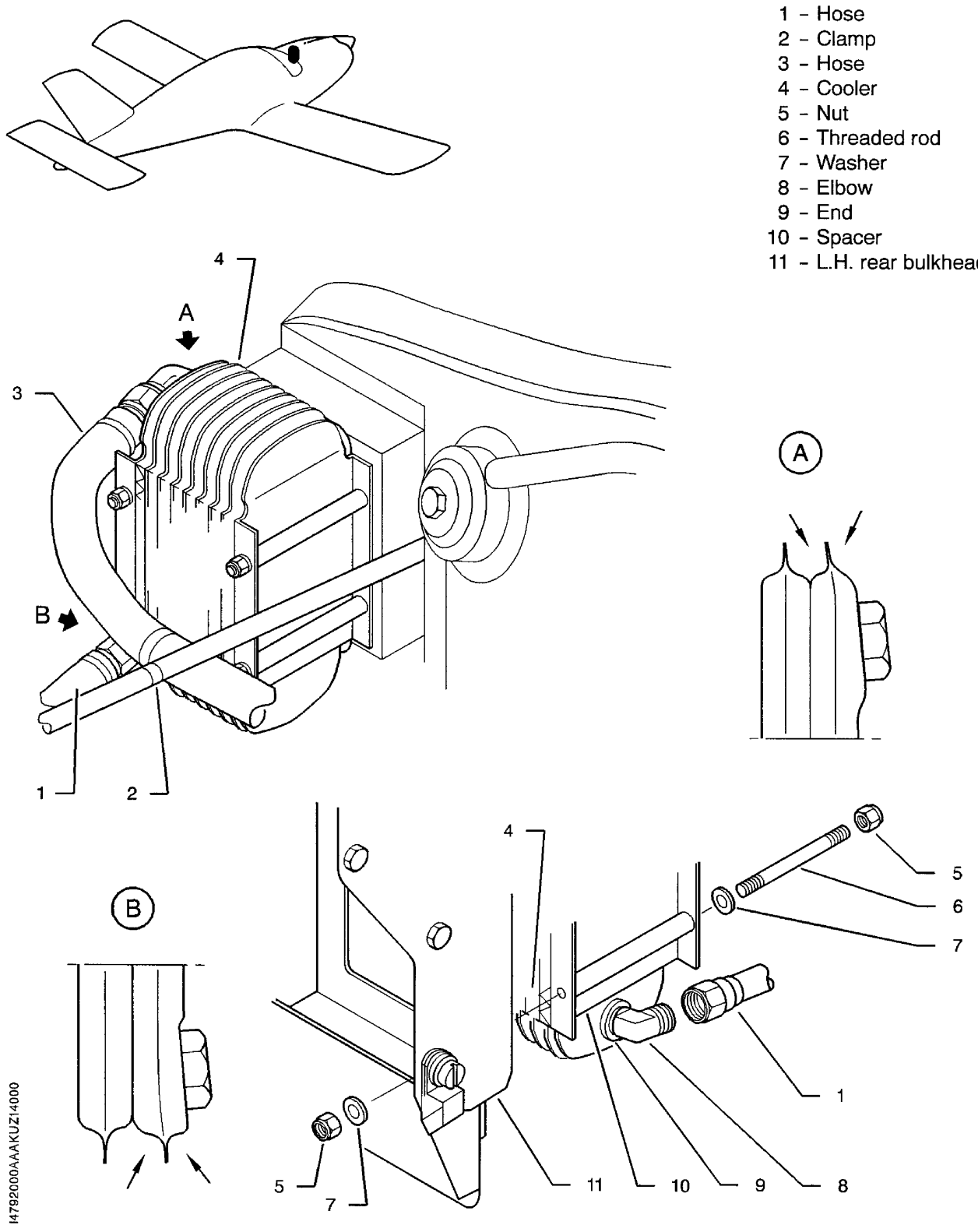
9) Install the engine cowlings - refer to 71-10-01.

10) Fill the oil system - refer to 12-12-01.

11) Check for leaks.



Cooler - Removal / Installation
Figure 401 - S / N 1 - 297 Pre-Kit OPT10 923500

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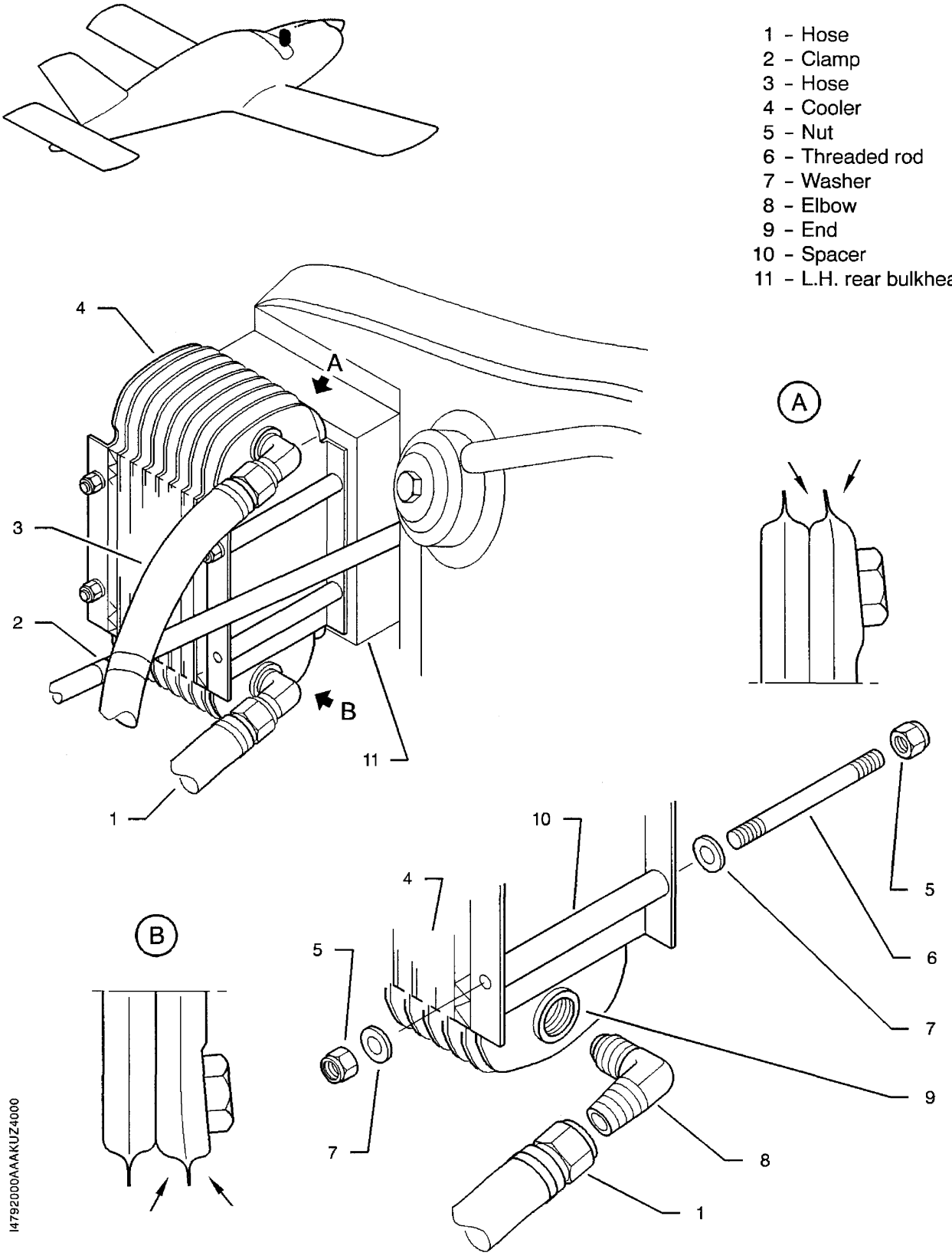
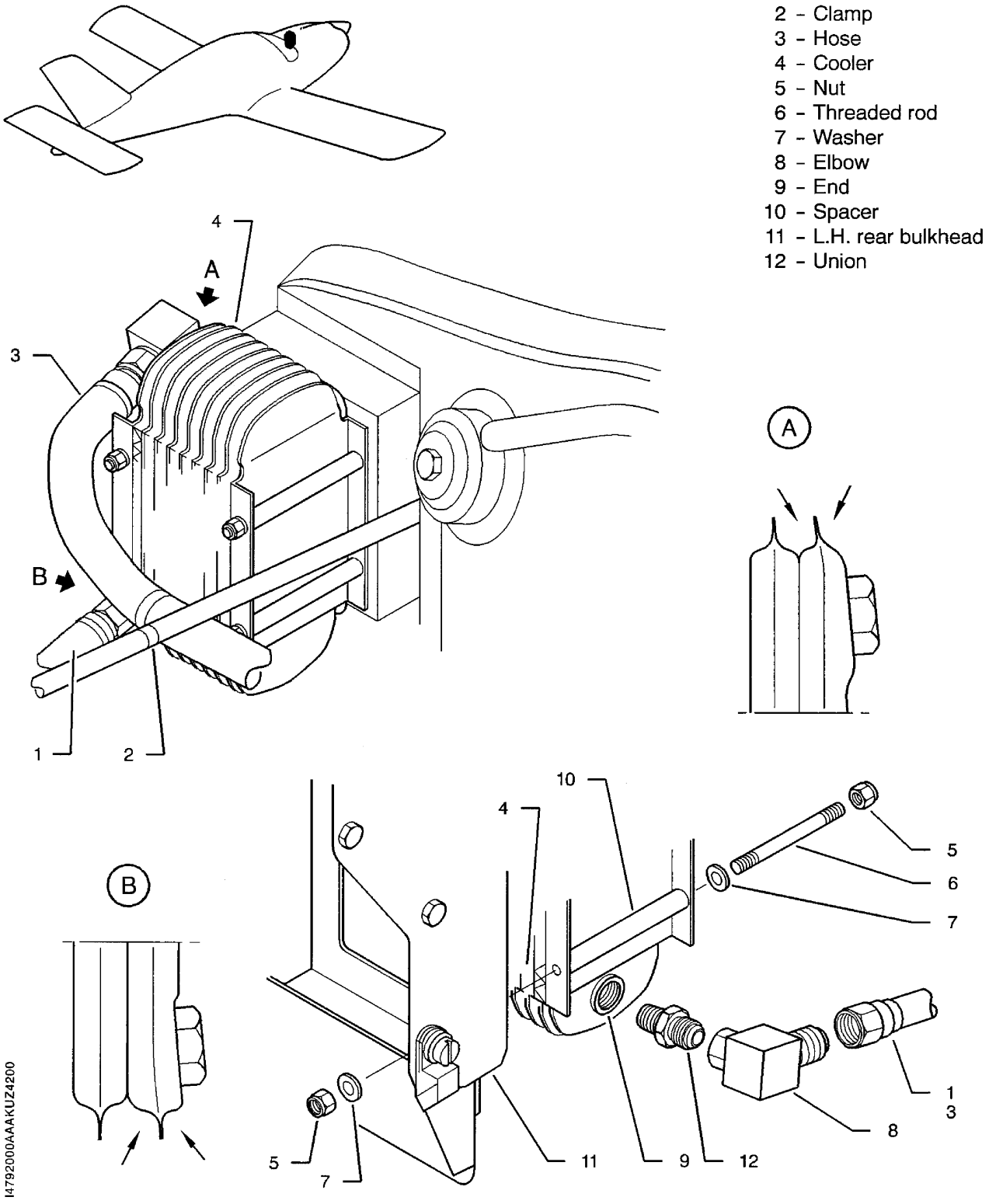
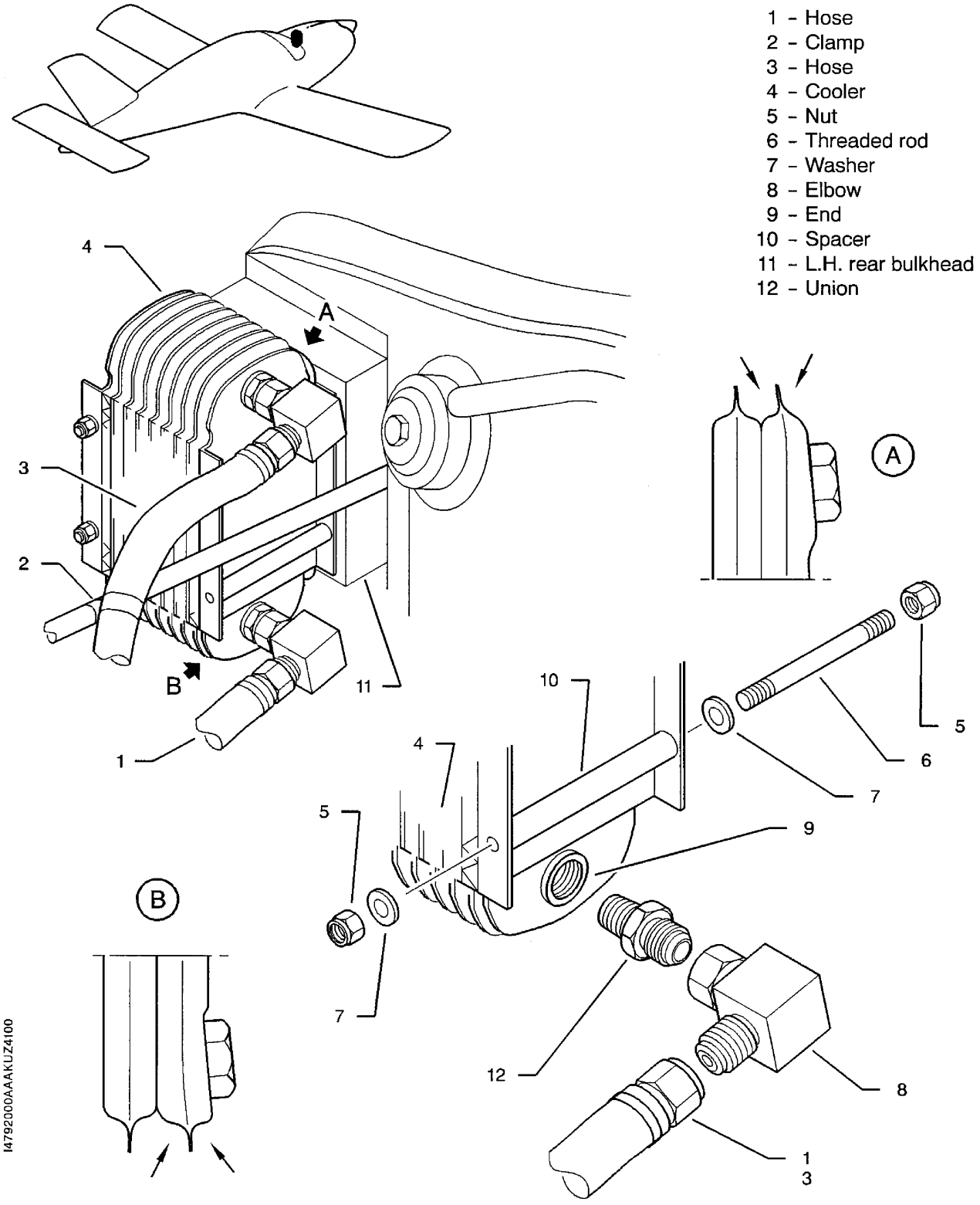


Cooler - Removal / Installation
Figure 401A - S / N 298 - 1822, 1824, 1825, 1827 - 1842 Pre-Kit OPT10 923500

1 - Hose
2 - Clamp
3 - Hose
4 - Cooler
5 - Nut
6 - Threaded rod
7 - Washer
8 - Elbow
9 - End
10 - Spacer
11 - L.H. rear bulkhead
12 - Union



Cooler - Removal / Installation
Figure 401B - S / N 1 - 297 Post-Kit OPT10 923500



Cooler - Removal / Installation
Figure 401C - S / N 1823, 1826, 1843 - 9999
S / N 298 - 1822, 1824, 1825, 1827 - 1842
Post-Kit OPT10 923500

STRAINER

REMOVAL / INSTALLATION

1. REMOVAL OF STRAINER (Figure 401)

A. Tools and consumable materials

None

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Remove the engine cowlings - refer to 71-10-01.

2) Drain the oil system - refer to 12-12-02.

3) Remove screws (1), washers (2) and body (3).

4) Retain strainer (4).

CAUTION : CHECK FOR METAL PARTICLES IN THE STRAINER. THE PRESENCE OF METAL PARTICLES INDICATES ENGINE DAMAGE.

5) Check for metal particles in strainer (4).

NOTE : If an abnormal quantity of metal particles is detected during strainer inspection, TEXTRON LYCOMING recommends a spectrograph oil analysis to monitor engine component wear rates. Refer to Service Bulletin No. 480 at the latest edition.

2. INSTALLATION OF STRAINER (Figure 401)

A. Tools and consumable materials

- Cleaning agent (TB 11-003)

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Clean strainer (4) with cleaning agent (TB 11-003), replace if necessary.

2) Inspect gasket (5) for correct condition, replace if necessary.

NOTE : Prior to installation, lubricate gasket (5) with new engine oil.

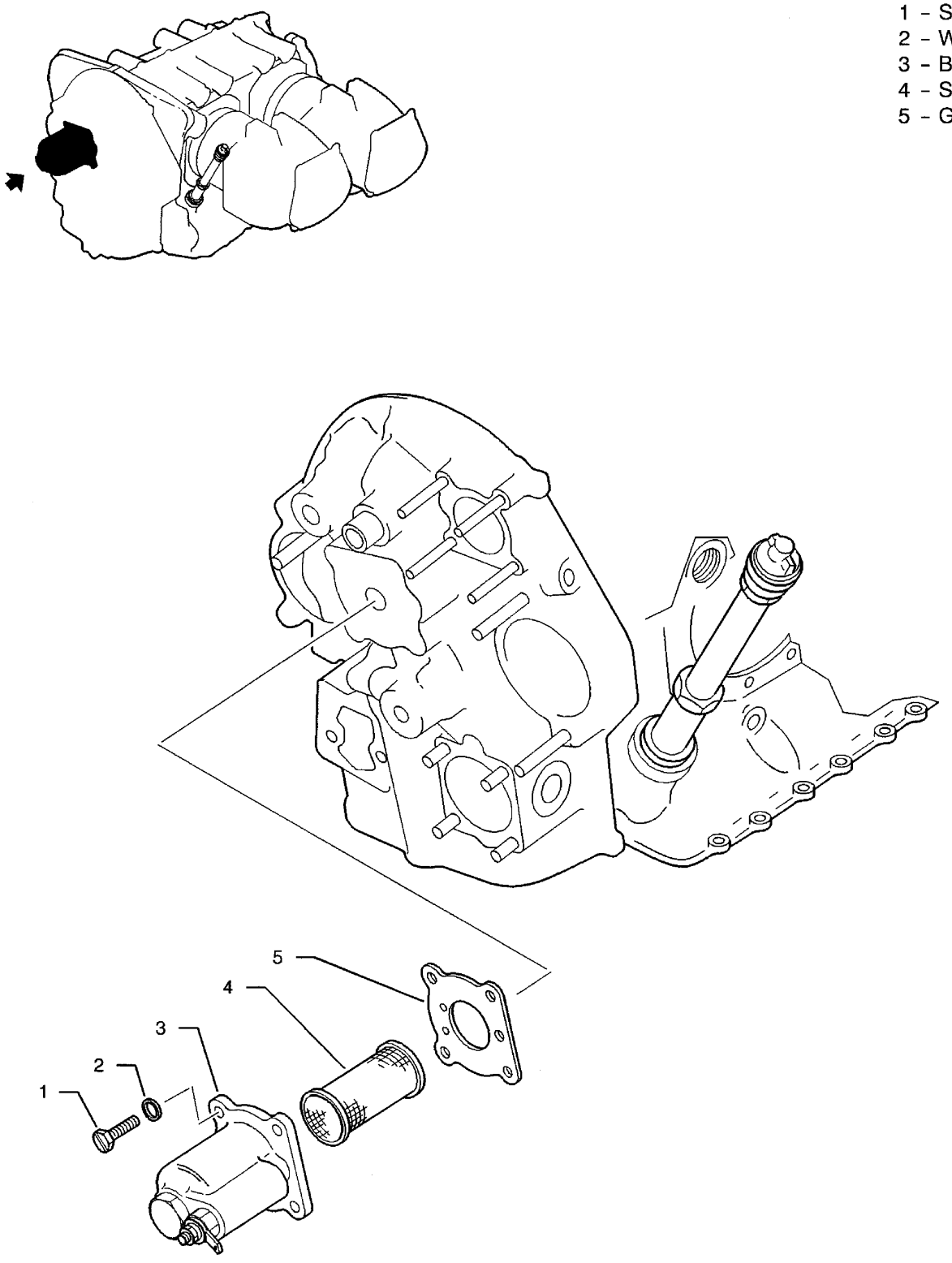
3) Install strainer (4) in body (3), then install and secure the assembly with washers (2) and screws (1).

4) Make sure all the tools and materials are removed and the work area is clean and free from debris.

5) Install the engine cowlings - refer to 71-10-01.

6) Fill the oil system - refer to 12-12-01.

7) Check for leaks.



Strainer - Removal / Installation
Figure 401

AAAA
Validity : S/N 1 - 1569 Pre-Kit OPT10 918400

FILTERING CARTRIDGE

REMOVAL / INSTALLATION

1. REMOVAL OF FILTERING CARTRIDGE (Figure 401)

A. Tools and consumable materials

- Champion CT-470 or Airwolf AFC-470 tool

B. Procedure

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

1) Remove the engine cowlings - refer to 71-10-01.

2) Drain the oil system - refer to 12-12-02.

3) Cut off and discard lockwire (2).

4) Loosen and remove filtering cartridge (1).

CAUTION : CHECK FOR METAL PARTICLES IN THE FILTERING CARTRIDGE. THE PRESENCE OF METAL PARTICLES INDICATES ENGINE DAMAGE.

5) Check for metal particles in filtering cartridge (1) :

a) Open filtering cartridge (1) using the Champion CT-470 or Airwolf AFC-470 tool.

b) Check the condition of the oil at the outlet of filtering cartridge (1). Check for metal particle contamination.

c) Remove the paper filter from filtering cartridge (1).

d) Carefully unfold the paper filter and examine the deposits inside.

NOTE : If an abnormal quantity of metal particles is detected during filtering cartridge inspection, TEXTRON LYCOMING recommends a spectrograph oil analysis to monitor engine component wear rates. Refer to Service Bulletin No. 480 at the latest edition.

2. INSTALLATION OF FILTERING CARTRIDGE (Figure 401)

A. Tools and consumable materials

- Torque wrench 0 to 265 lbf.in (0 to 30 N.m)
- Stainless steel lockwire, dia. 0.032 in (0.8 mm)

B. Procedure

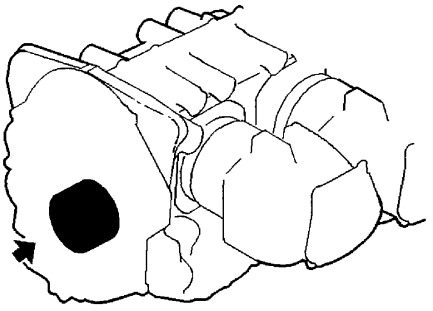
WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE KEY IS REMOVED FROM MAGNETO SELECTOR AND THAT "MAIN SWITCH" IS OFF.

WARNING : PRIOR TO ANY OPERATION, ENSURE THAT THE ENGINE, EXHAUST PIPE AND MANIFOLDS ARE COLD. IF NOT, TAKE NECESSARY PRECAUTIONS TO AVOID SEVERE BURNS.

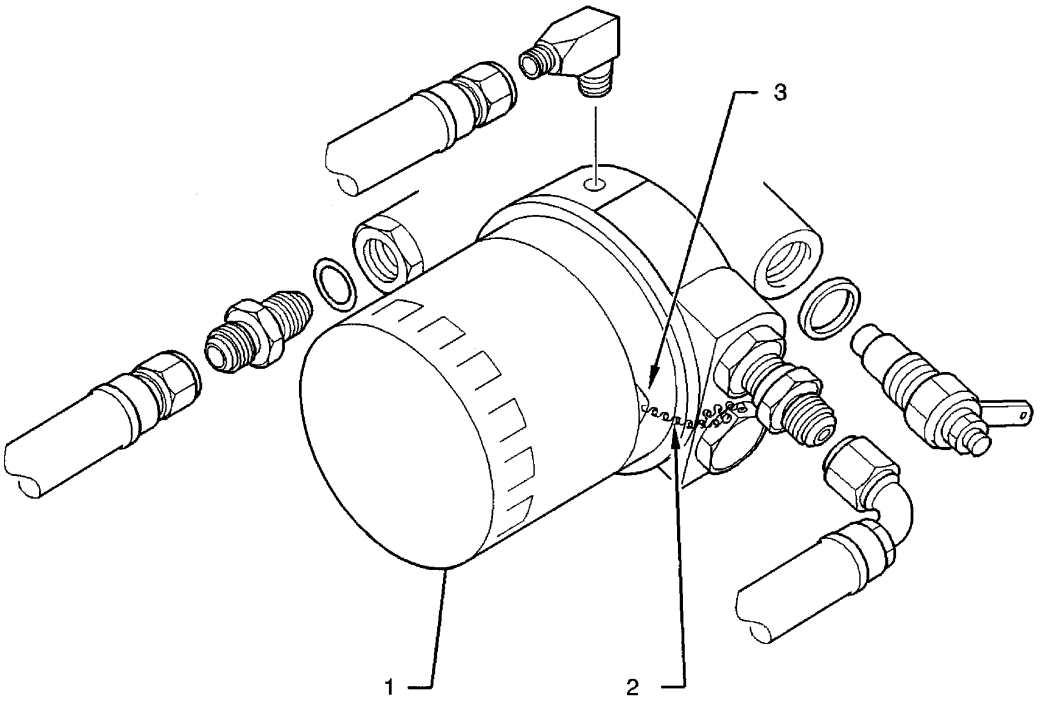
1) Lubricate the seal of new filtering cartridge (1) with new engine oil.

   NOTE : Observe the installation instructions supplied with the filtering cartridge.

2) Install new filtering cartridge (1). Torque - refer to 20-00-01.
3) Lockwire filtering cartridge (1).
4) Make sure all the tools and materials are removed and the work area is clean and free from debris.
5) Install the engine cowlings - refer to 71-10-01.
6) Fill the oil system - refer to 12-12-01.
7) Check for leaks.



1 - Filtering cartridge
2 - Lockwire
3 - Notch



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Filtering cartridge - Removal / Installation
Figure 401

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INDICATING SYSTEM

DESCRIPTION AND OPERATION

1. GENERAL

The indicating system shows engine lubricant pressure and temperature and allows the pilot to monitor the oil system.

The system consists of :

- warning light on the advisory panel - refer to 31-50-00,
- temperature indicator integrated into the engine monitoring cluster - refer to 31-10-00,
- pressure indicator integrated into the engine monitoring cluster - refer to 31-10-00,
- temperature probe,
- pressure transmitter.

2. LOCATION (Figures 1, 1A, 1B and 1C)

COMPONENT	QTY	AREA	ACCESS DOOR	REFERENCE
Advisory panel	1	251L	/	31-50-00
Engine monitoring cluster	1	251C	/	31-10-00
Temperature probe	1	100	121	79-30-00
Pressure transmitter	1	100	121 / 131	79-30-00

3. DESCRIPTION

A. Warning light

The warning light is located on the advisory panel. Its lighting-up, when the pressure drops down to approximately 15 ± 3 psi (1.02 ± 0.2 bar), indicates a lack of oil pressure due to a defect in the pump or in its drive mechanism.

It is supplied by bus 1 bar.

B. Temperature indicator

The temperature indicator receives information from the temperature probe and indicates the engine oil temperature to the pilot. It is integrated into the engine monitoring cluster.

It is supplied by bus 1 bar.

C. Pressure indicator

The pressure indicator receives information from the pressure transmitter and indicates the oil pressure provided by the engine pump to the pilot. It is integrated into the engine monitoring cluster.

It is supplied by bus 1 bar.

D. Temperature probe

The temperature probe transmits the engine oil temperature to the pilot by means of the oil temperature indicator located on the engine monitoring cluster.

Pre-Kit OPT10 918400 (Figures 1 and 1A)

It is screwed on the filter body, located on the engine rear table.

Post-Kit OPT10 918400 (Figures 1B and 1C)

It is located on the engine rear table in the area of the filtering cartridge.

E. Pressure transmitter

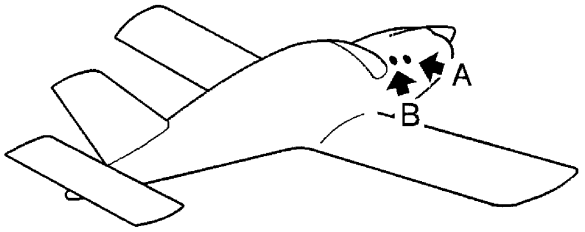
S / N 1 - 300 Pre-Kit OPT10 907100 (Figures 1 and 1B)

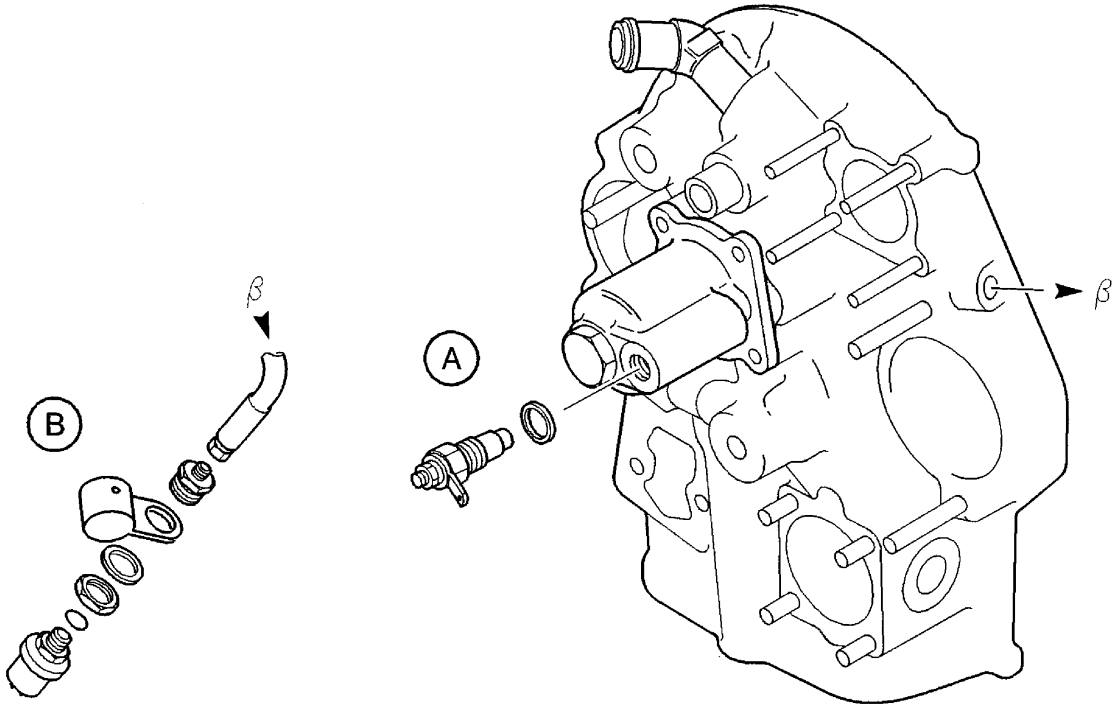
Located on the R.H. lower section of the engine mount and connected to the engine through a hose, the pressure transmitter provides the pilot with oil pressure by means of the indicator located on the engine monitoring cluster.

S / N 301 - 822, 850 - 887, 889 - 947 Post-Kit OPT10 907100 (Figure 1A and 1C)

Located on the lower right side of the firewall and connected to the engine through a hose, the pressure transmitter provides the pilot with the oil pressure by means of the indicator located on the engine monitoring cluster.

A - Temperature probe
B - Pressure transmitter





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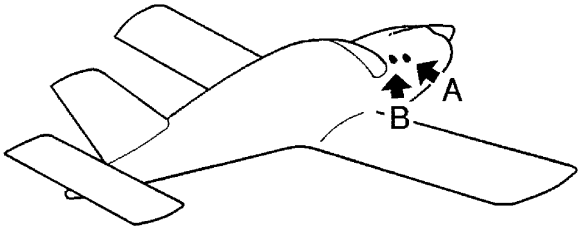
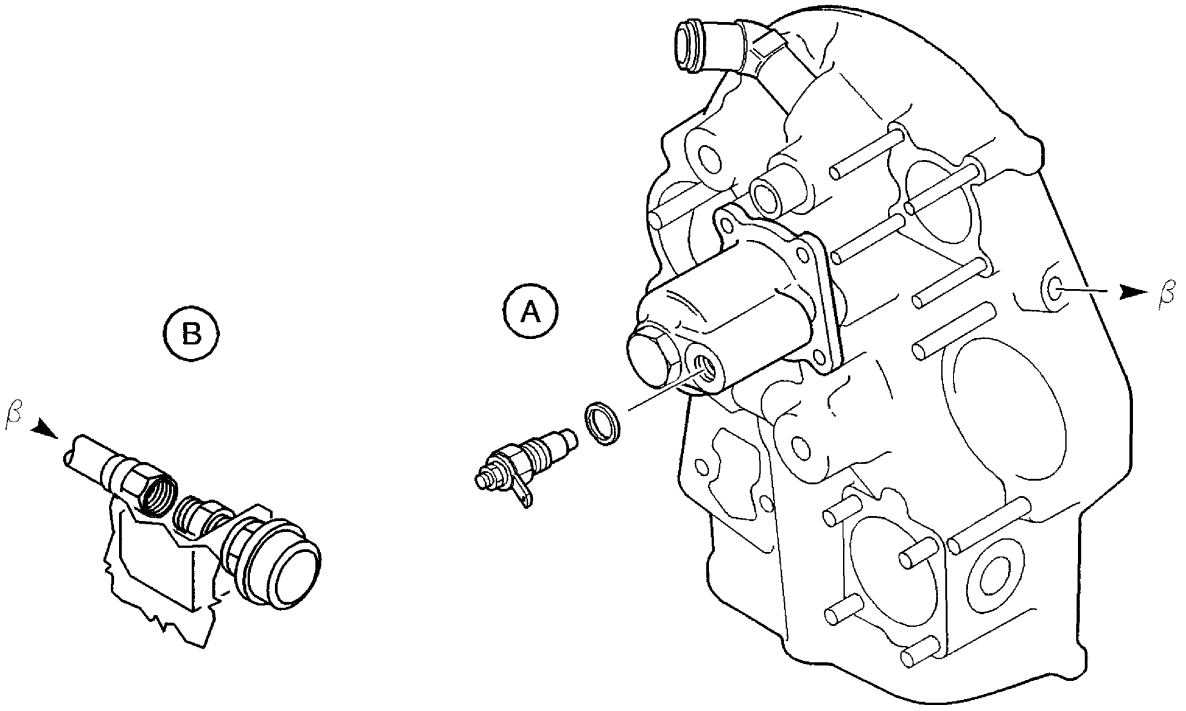
Indicating system - Location of components
Figure 1

A - Temperature probe
B - Pressure transmitter





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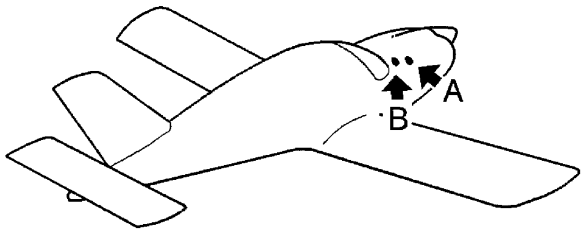
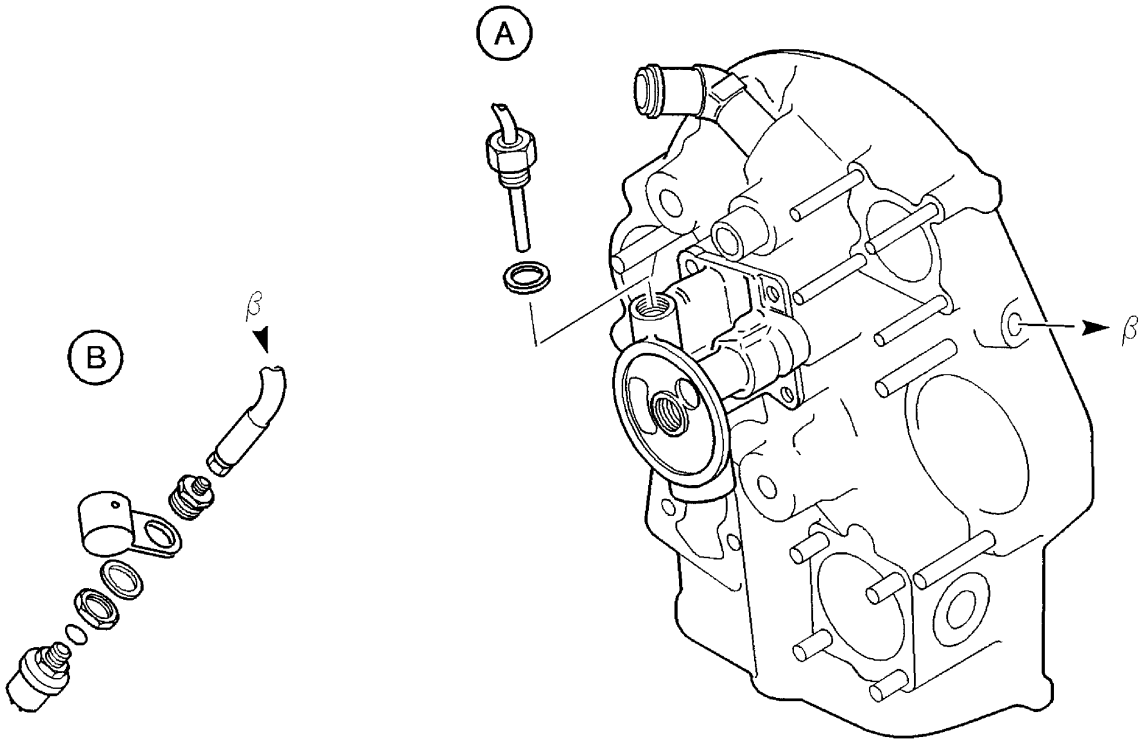
Indicating system - Location of components
Figure 1A

A - Temperature probe
B - Pressure transmitter





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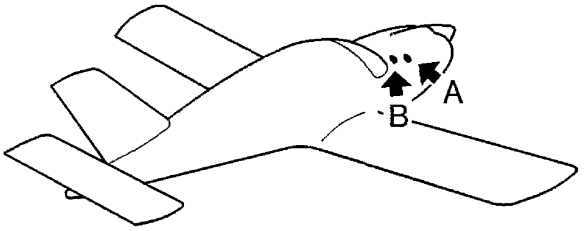
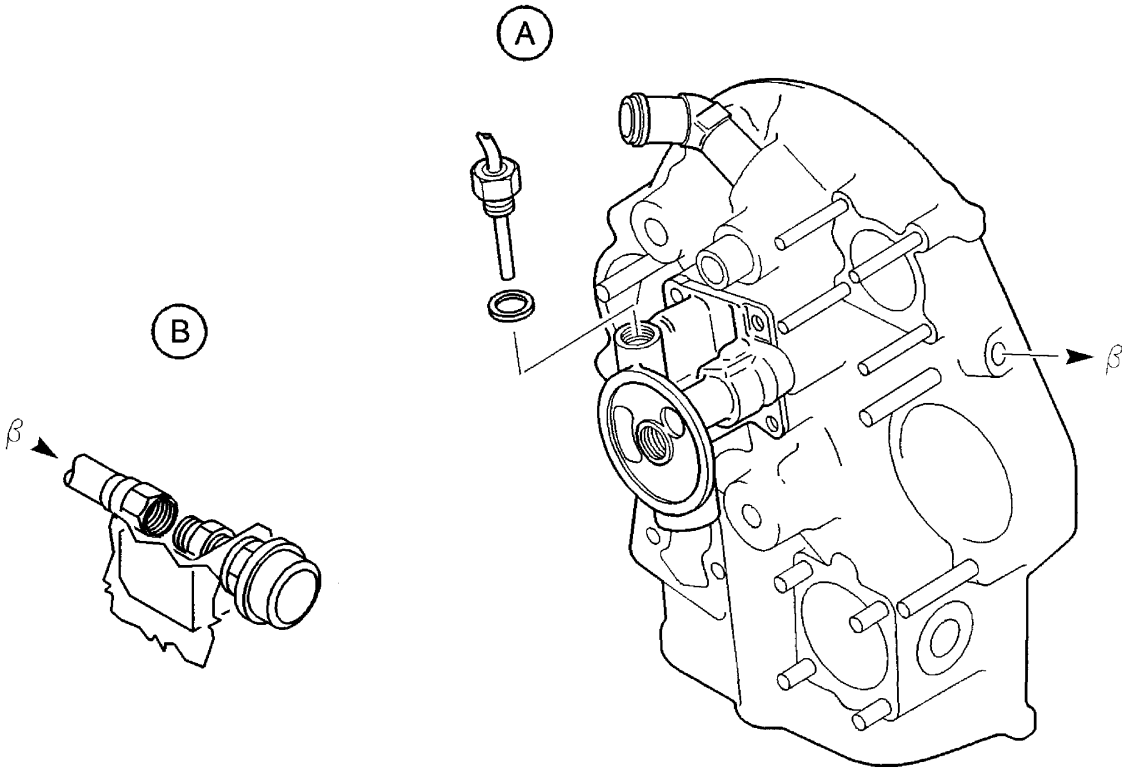
Indicating system - Location of components
Figure 1B

A - Temperature probe
B - Pressure transmitter





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Indicating system - Location of components
Figure 1C

INDICATING SYSTEM

DESCRIPTION AND OPERATION

1. GENERAL

The indicating system shows engine lubricant pressure and temperature and allows the pilot to monitor the oil system.

The system consists of :

- warning light on the advisory panel - refer to 31-50-00,
- temperature indicator integrated into the engine monitoring cluster - refer to 31-10-00,
- pressure indicator integrated into the engine monitoring cluster - refer to 31-10-00,
- temperature probe,
- pressure transmitter,
- pressure switch.

2. LOCATION (Figures 1, 1A, 1B and 1C)

COMPONENT	QTY	AREA	ACCESS DOOR	REFERENCE
Advisory panel	1	251L	/	31-50-00
Engine monitoring cluster	1	251C	/	31-10-00
Temperature probe	1	100	121	79-30-00
Pressure transmitter	1	100	121 / 131	79-30-00
Pressure switch	1	100	121 / 131	79-30-00

3. DESCRIPTION

A. Warning light

The warning light is located on the advisory panel. Its lighting-up, when the pressure drops down to approximately 15 ± 3 psi (1.02 ± 0.2 bar), indicates a lack of oil pressure due to a defect in the pump or in its drive mechanism.

It is supplied by bus 1 bar.

B. Temperature indicator

The temperature indicator receives information from the temperature probe and indicates the engine oil temperature to the pilot. It is integrated into the engine monitoring cluster.

It is supplied by bus 1 bar.

C. Pressure indicator

The pressure indicator receives information from the pressure transmitter and indicates the oil pressure provided by the engine pump to the pilot. It is integrated into the engine monitoring cluster.

It is supplied by bus 1 bar.

D. Temperature probe

The temperature probe transmits the engine oil temperature to the pilot by means of the oil temperature indicator located on the engine monitoring cluster.

Pre-Kit OPT10 918400 (Figures 1 and 1A)

It is screwed on the filter body, located on the engine rear table.

Post-Kit OPT10 918400 (Figures 1B and 1C)

It is located on the engine rear table at the filtering cartridge.

E. Pressure transmitter

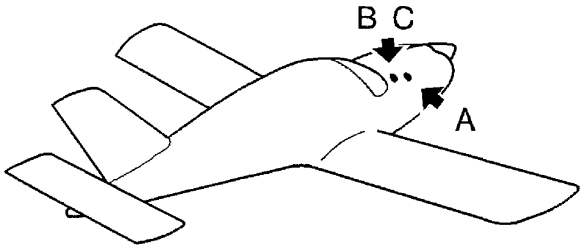
S / N 823 - 849, 888, 948 - 968, 970 - 1184, 1186 - 1213, 1215 - 1477, 1479 - 1505, 1509 - 1512 (Figures 1 and 1B, Detail B)
S / N 969, 1185, 1214, 1478, 1506 - 1508, 1513 - 9999 (Figures 1A and 1C, Detail B)

Located on the lower right side of the firewall and connected to the engine through a hose, the pressure transmitter provides the pilot with oil pressure by means of the indicator located on the engine monitoring cluster.

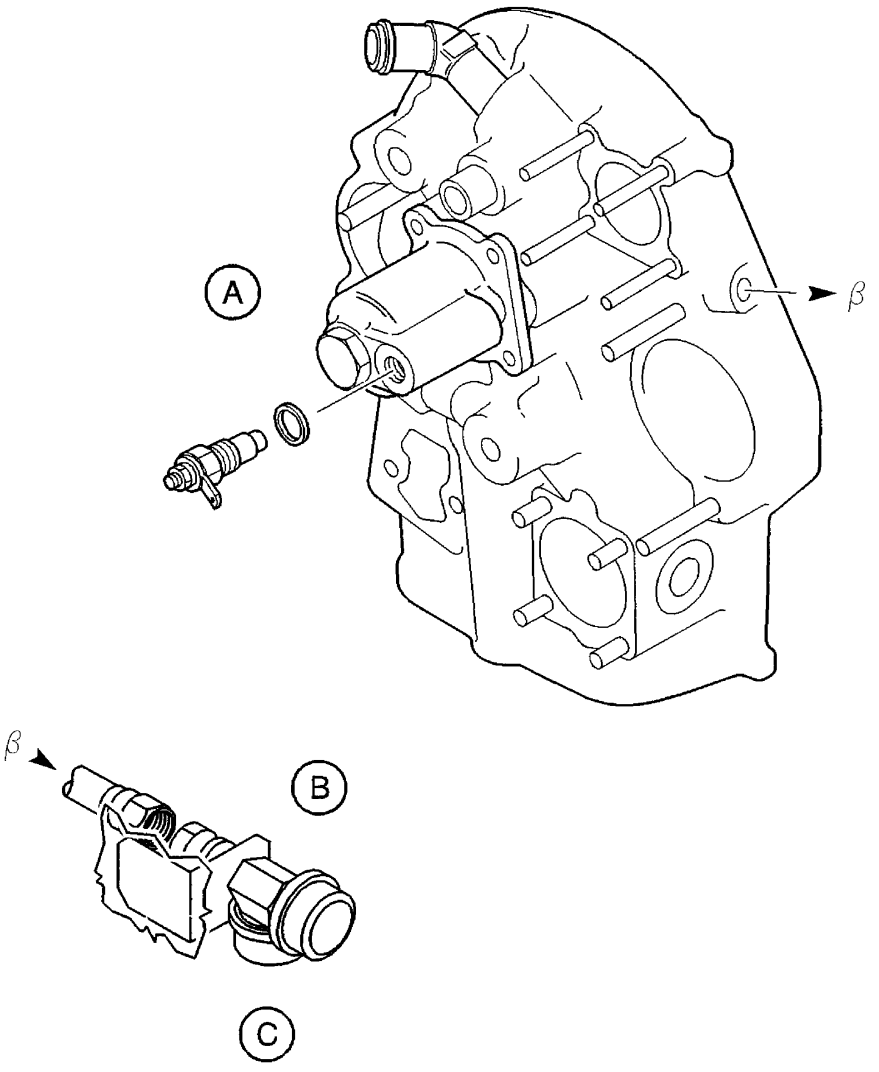
F. Pressure switch

S / N 823 - 849, 888, 948 - 968, 970 - 1184, 1186 - 1213, 1215 - 1477, 1479 - 1505, 1509 - 1512 (Figures 1 and 1B, Detail C)
S / N 969, 1185, 1214, 1478, 1506 - 1508, 1513 - 9999 (Figures 1A and 1C, Detail C)

Located on the same union as the pressure transmitter, the pressure switch illuminates the red warning light "Oil" of the advisory panel when the oil pressure is below 15 ± 3 psi (1.2 ± 0.2 bar).



A - Temperature probe
B - Pressure transmitter
C - Pressure switch



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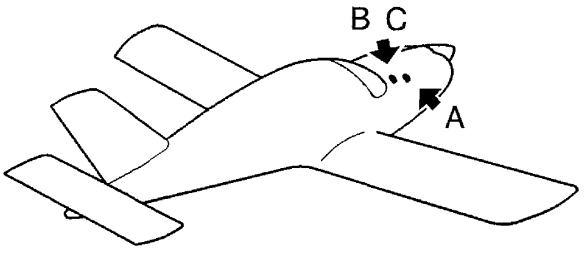
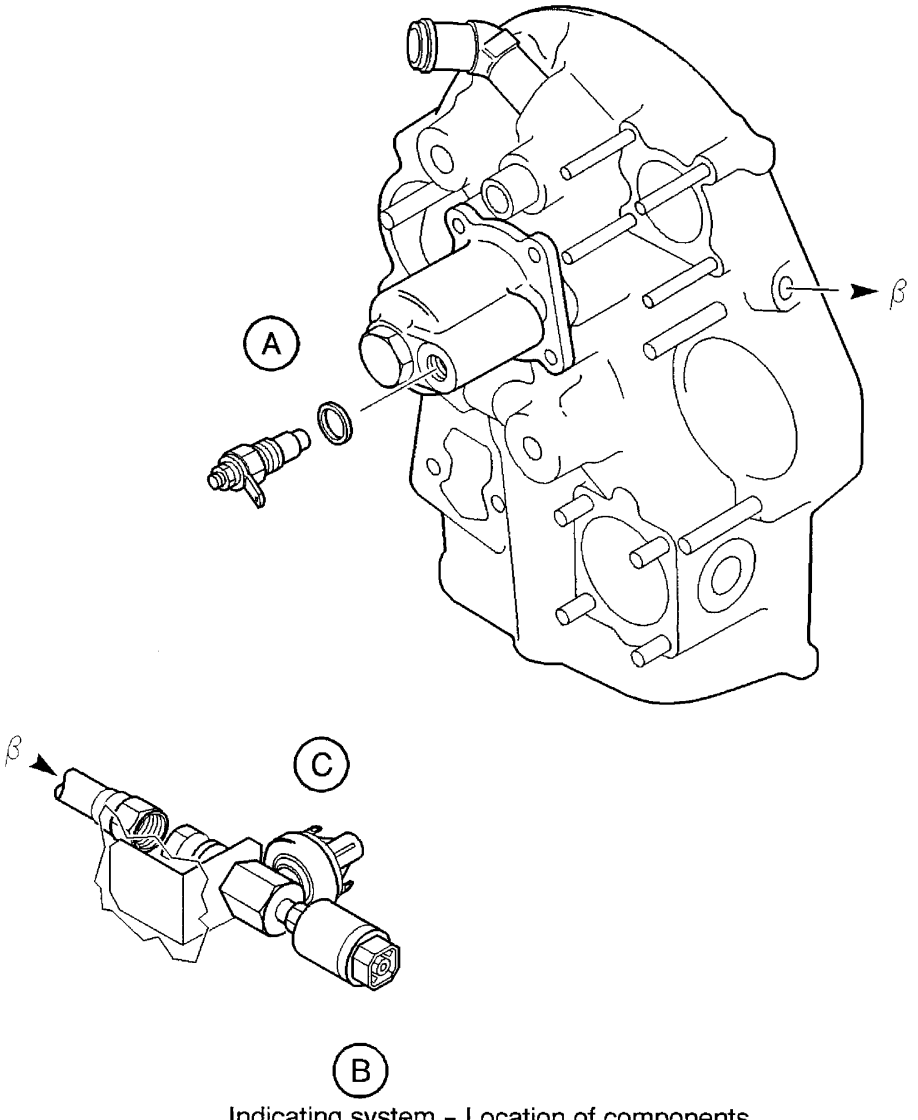
Indicating system - Location of components
Figure 1



A - Temperature probe
B - Pressure transmitter
C - Pressure switch



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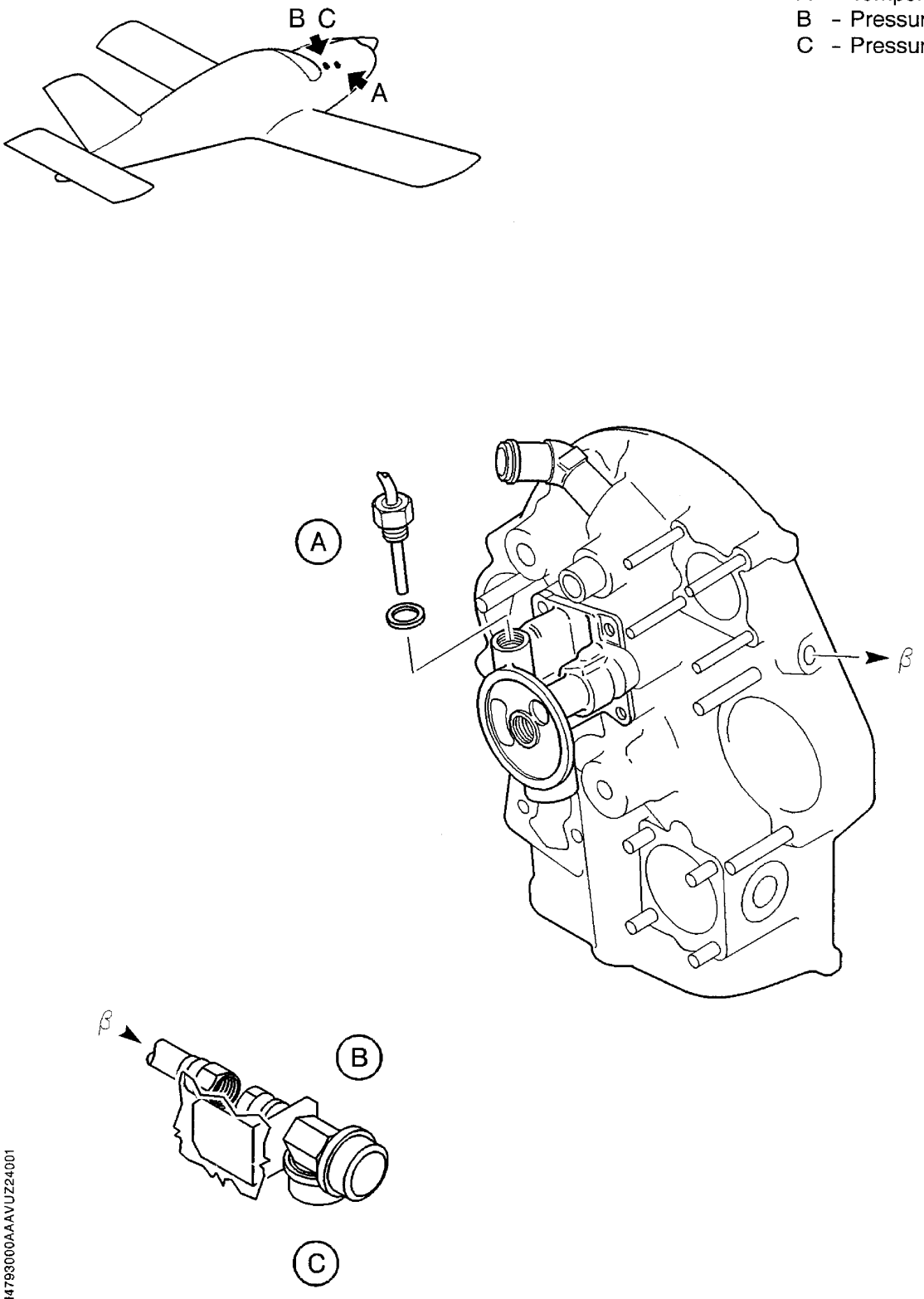
Indicating system - Location of components
Figure 1A

A - Temperature probe
B - Pressure transmitter
C - Pressure switch



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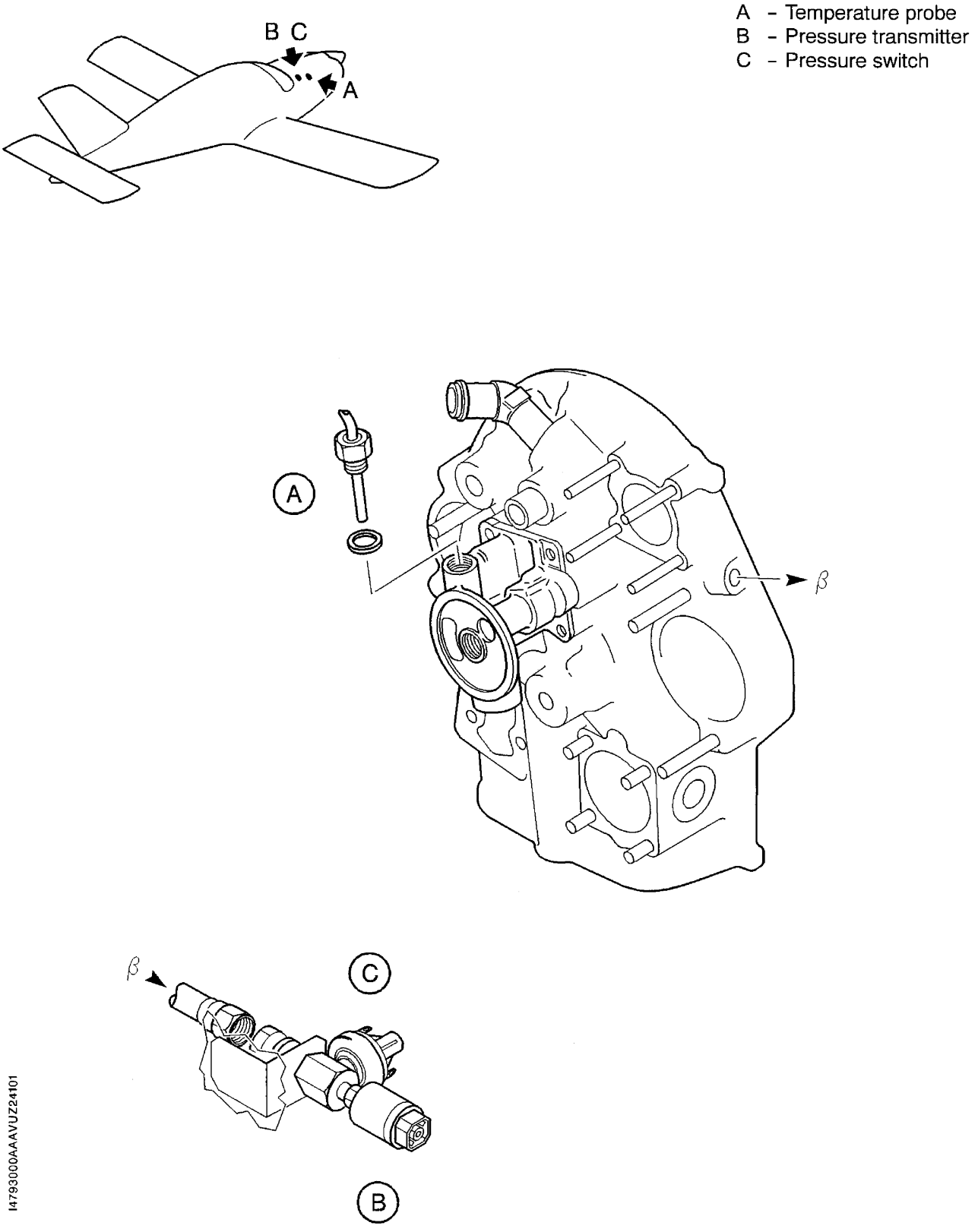
Indicating system - Location of components
Figure 1B

A - Temperature probe
B - Pressure transmitter
C - Pressure switch



Indicating system - Location of components
Figure 1C