

REPLENISHING, ENGINE OIL SYSTEM - SERVICING

TASK 12-13-79-610-801

1. Quantity Check of the Oil Level in Engine

A. Service Bulletin List

SERVICE BULLETIN NO.	SERVICE BULLETIN TITLE
CF34-3A1/-3B1 SB 79-0008	OIL SYSTEM – Introduction of improved (non-coated) oil tank on fielded engines and new production engines and elimination of A-sump scavenge pump on new production engines

B. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-612-801	Replenishing of the Oil Supply at the Engine
TASK 12-13-79-612-802	Replenishing of the Oil Supply With the Remote Replenishment System
TASK 12-13-79-680-801	Draining of the Oil Supply at the Engine
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 71-00-00-866-805	Dry Motor the Engine
TASK 71-00-00-866-829	Engine Shutdown (Usual)
TASK 71-11-01-010-801	Opening of the Upper Translating Cowl Door
TASK 71-11-01-410-801	Closing of the Upper Translating Cowl Door
TASK 71-12-01-010-801	Opening of the Upper Core Cowl Door
TASK 71-12-01-410-801	Closing of the Upper Core Cowl Door

EFFECTIVITY: ALL

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C. Tools and Equipment

REFERENCE	DESIGNATION
GSE 24-00-24	Tag, Circuit Breaker
Commercially Available	Flashlight

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

D. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil
05-001	Cloth, Cleaner, Low-Lint	MIL-C-85043

E. Job Set-Up

WARNING: OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, YOU CAN CAUSE INJURY TO PERSONS AND DAMAGE TO THE EQUIPMENT.

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).

EFFECTIVITY: ALL

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CAUTION: EXAMINE THE OIL QUANTITY BETWEEN THREE MINUTES AND TWO HOURS AFTER A USUAL ENGINE SHUTDOWN, OR IN LESS THAN 5 MINUTES AFTER A DRY MOTOR RUN. IF THE ENGINE HAS NOT BEEN OPERATED FOR MORE THAN TWO HOURS, DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS. IF YOU DO NOT DO THIS, THE QUANTITY INDICATION WILL BE INCORRECT AND YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

CAUTION: DO NOT MIX TYPE I OILS WITH TYPE II OILS. CHEMICAL STRUCTURE MAKES THEM INCOMPATIBLE.

CAUTION: DO NOT MIX CASTROL 4000 WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: DO NOT MIX MOBIL RM184A TURBO OIL WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE I IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE II IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: DRAIN AND FLUSH THE OIL SYSTEM IF OIL TYPES HAVE BEEN MIXED.

(2) Make sure the oil is at its usual serviceable temperature, and has been operated for at least 3 minutes before the quantity check is done. If necessary, do a dry motor run at 28% N2 for 30 seconds (TASK 71-00-00-866-805).

(3) Open and tag the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

(4) Open the upper translating cowl door (TASK 71-11-01-010-801).

(5) Open the upper core cowl door (TASK 71-12-01-010-801).

EFFECTIVITY: ALL

F. Procedure

Refer to Figure 301.

CAUTION: EXAMINE THE OIL QUANTITY BETWEEN THREE MINUTES AND TWO HOURS AFTER A USUAL ENGINE SHUTDOWN, OR IN LESS THAN 5 MINUTES AFTER A DRY MOTOR RUN. IF THE ENGINE HAS NOT BEEN OPERATED FOR MORE THAN TWO HOURS, DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS. IF YOU DO NOT DO THIS, THE QUANTITY INDICATION WILL BE INCORRECT AND YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

CAUTION: IF IT IS NECESSARY TO ADD MORE THAN 2 U.S. QUARTS (1.9 L) OF OIL, MAKE SURE TO DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS BEFORE YOU ADD THE OIL. IF YOU DO NOT DO THIS, YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

CAUTION: DO NOT LET THE ENGINE OIL LEVEL DECREASE TO LESS THAN 2 U.S. QUARTS (1.7 L) FULL. TOO LITTLE OIL CAN CAUSE DAMAGE TO THE ENGINE.

- (1) On aircraft with sight gauges, look at the two oil-level sight gauges (2) and (3) on top of the oil tank (1).

NOTE: One gauge is identified as OVERFULL IF DARK (2) and the other gauge is identified as ADD OIL IF LIGHT (3).

Sight Gauges Indication		Results
OVERFULL IF DARK	ADD OIL IF LIGHT	
NO	NO	Engine oil level satisfactory. Oil tank is full.
NO	YES	Add oil to the engine oil tank TASK 12-13-79-612-801. (See note [1])
YES	NO	Drain oil from the engine oil tank TASK 12-13-79-680-801.
<p>NOTE: [1] The procedure given is for replenishing the oil supply at the engine. If necessary, replenish the oil supply with the remote replenishment system (TASK 12-13-79-612-802)</p>		

- (2) On aircraft without a sight gauge, remove the dipstick/filler cap (4) and look at the oil-level gauge on the dipstick.

EFFECTIVITY: ALL

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CAUTION: DO NOT MIX TYPE I OILS WITH TYPE II OILS. CHEMICAL STRUCTURE MAKES THEM INCOMPATIBLE.

CAUTION: DO NOT MIX CASTROL 4000 WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: DO NOT MIX MOBIL RM184A TURBO OIL WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE II IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: DRAIN AND FLUSH THE OIL SYSTEM IF OIL TYPES HAVE BEEN MIXED.

- (3) On aircraft with sight gauges, add oil if "ADD OIL IF LIGHT" sight gauge is light (TASK 12-13-79-612-801).
- (4) On aircraft without a sight gauge, add oil to the engine oil tank if the oil is below the full line (TASK 12-13-79-612-801).

NOTE: The procedure given is for replenishing the oil supply at the engine. If necessary, replenish the oil supply with the remote replenishment system (TASK 12-13-79-612-802).

- (5) On aircraft with sight gauges, drain oil if OVERFULL IF DARK sight gauge is dark (TASK 12-13-79-680-801).
- (6) On aircraft without a sight gauge, drain oil from the engine oil tank if the oil is above the full line (TASK 12-13-79-680-801).
- (7) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

G. Close Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.
- (2) Close the upper translating cowl door (TASK 71-11-01-410-801).

EFFECTIVITY: ALL

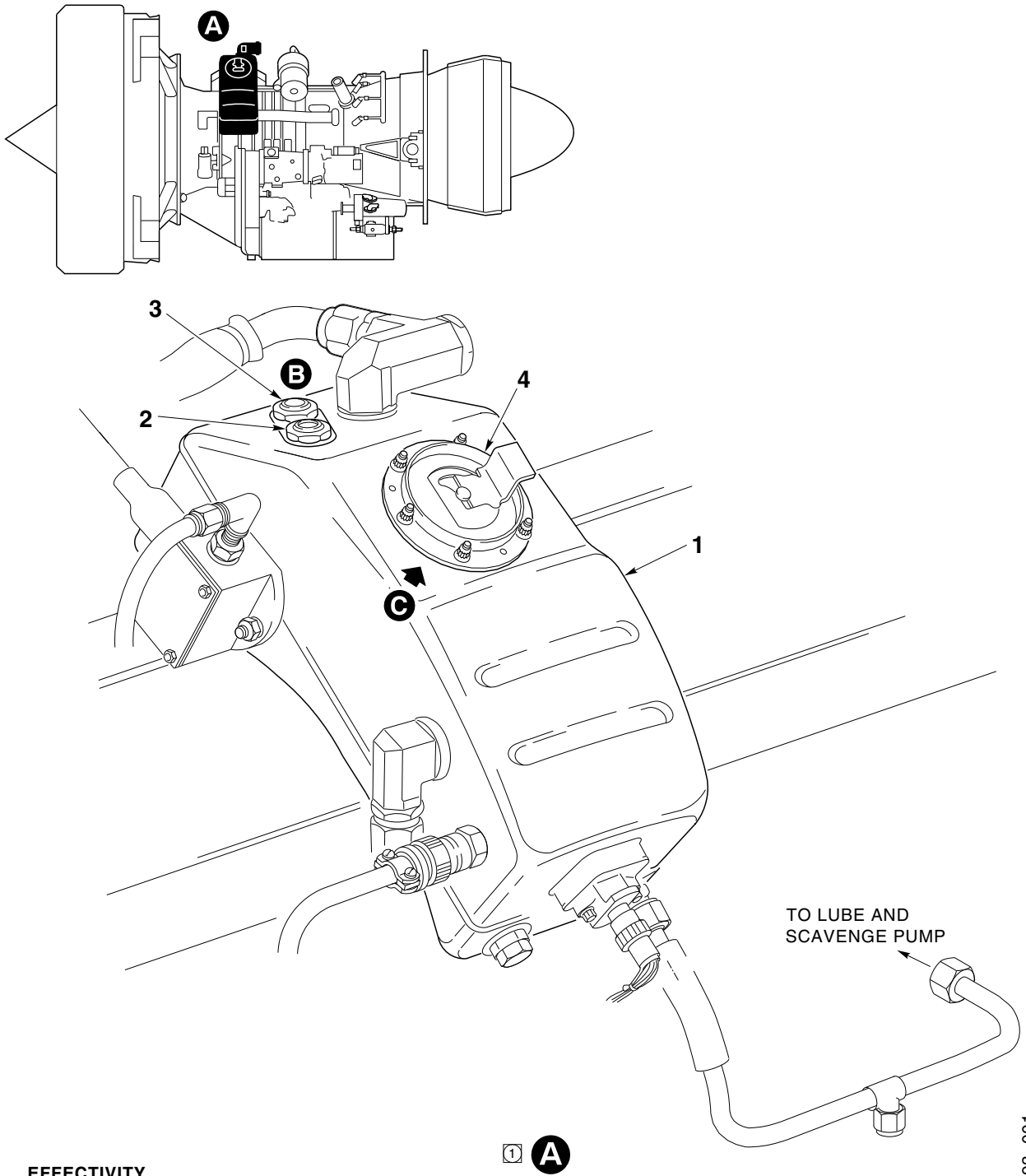
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- (3) Close the upper core cowl door (TASK 71-12-01-410-801).

EFFECTIVITY: ALL

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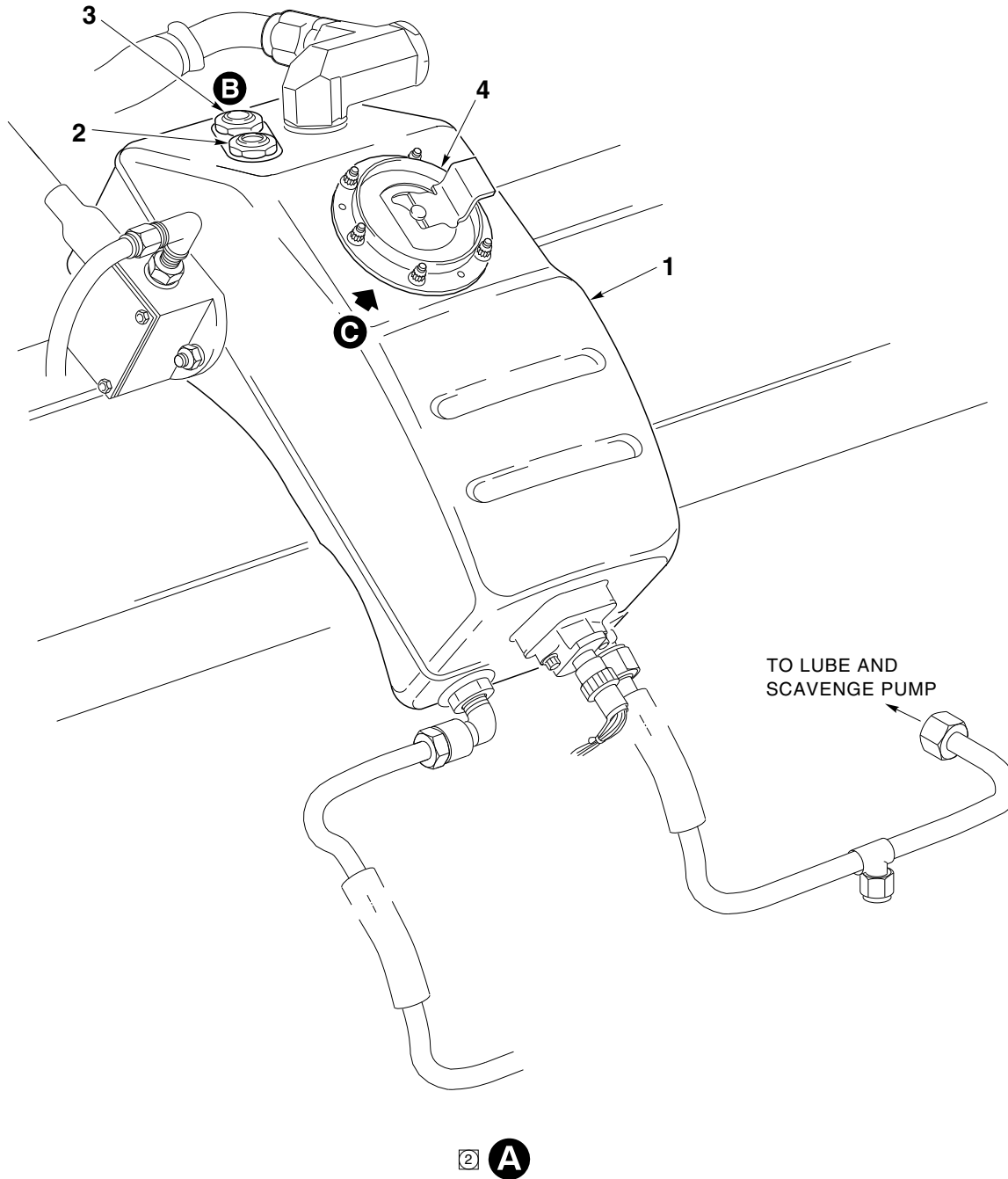
EFFECTIVITY

- ① ENGINE S/N872001 TO 872173 CF34-3A1/3B1 PRE SB79-0008
- ② ENGINE S/N872001 TO 872173 CF34-3A1/3B1 POST SB79-0008 AND ENGINE S/N872174 AND SUBS

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Servicing of the Engine Oil System at the Engine
 Figure 301 (Sheet 1 of 3)

EFFECTIVITY: ALL



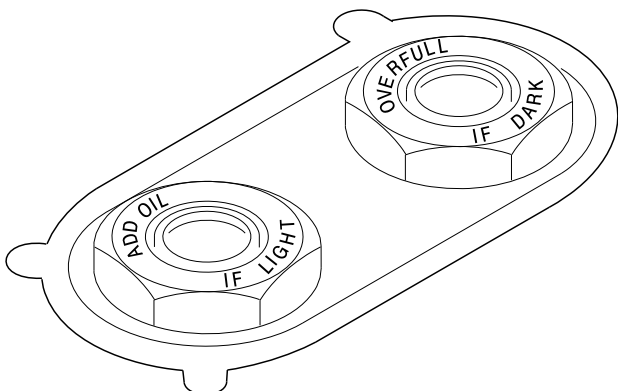
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Servicing of the Engine Oil System at the Engine
Figure 301 (Sheet 2 of 3)

EFFECTIVITY: ALL

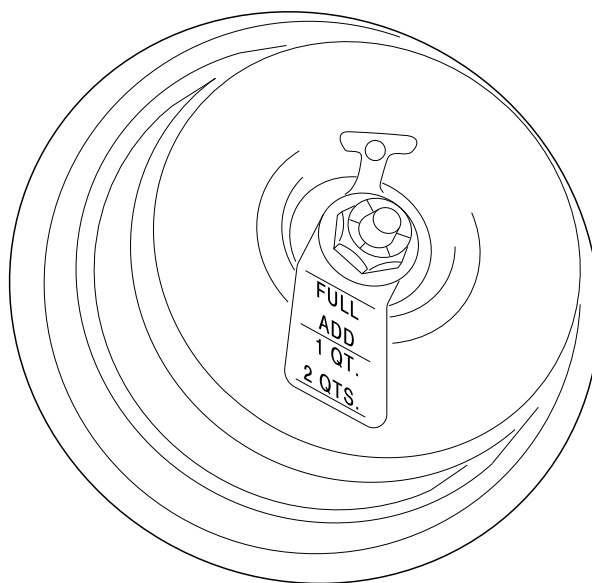
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OIL LEVEL SIGHT GAUGE

B



FILLER CAP

1 C

NOTE

1 Filler cap (4) may be replaced by a dipstick/filler cap. When item (4) is a dipstick/filler cap, it is possible that items (2) and (3) are not installed.

Servicing of the Engine Oil System at the Engine
Figure 301 (Sheet 3 of 3)

EFFECTIVITY: ALL

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TASK 12-13-79-610-802

2. Quantity Check of the Engine Oil Level with the Remote Replenishment System

A. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-612-802	Replenishing of the Oil Supply With the Remote Replenishment System
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 71-00-00-866-805	Dry Motor the Engine
TASK 71-00-00-866-829	Engine Shutdown (Usual)
TASK 79-12-00-710-801	Operational Test of the Oil Replenishment System

B. Tools and Equipment

REFERENCE	DESIGNATION
GSE 24-00-24	Tag, Circuit Breaker

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

EFFECTIVITY: ALL

C. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil
05-001	Cloth, Cleaner, Low-Lint	MIL-C-85043

D. Job Set-Up

WARNING: OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, YOU CAN CAUSE INJURY TO PERSONS AND DAMAGE TO THE EQUIPMENT.

(1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).

CAUTION: EXAMINE THE OIL QUANTITY BETWEEN THREE MINUTES AND TWO HOURS AFTER A USUAL ENGINE SHUTDOWN, OR IN LESS THAN 5 MINUTES AFTER A DRY MOTOR RUN. IF THE ENGINE HAS NOT BEEN OPERATED FOR MORE THAN TWO HOURS, DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS. IF YOU DO NOT DO THIS, THE QUANTITY INDICATION WILL BE INCORRECT AND YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

(2) Make sure the oil is at its usual serviceable temperature, and has been operated for at least 3 minutes before the quantity check is done. If necessary, do a dry motor run at 28% N2 for 30 seconds (TASK 71-00-00-866-805).

EFFECTIVITY: ALL

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(3) Open and tag the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

(4) Open the aft equipment compartment access-door (311BB).

E. Procedure

Refer to Figure 302.

CAUTION: EXAMINE THE OIL QUANTITY BETWEEN THREE MINUTES AND TWO HOURS AFTER A USUAL ENGINE SHUTDOWN, OR IN LESS THAN 5 MINUTES AFTER A DRY MOTOR RUN. IF THE ENGINE HAS NOT BEEN OPERATED FOR MORE THAN TWO HOURS, DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS. IF YOU DO NOT DO THIS, THE QUANTITY INDICATION WILL BE INCORRECT AND YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

CAUTION: IF IT IS NECESSARY TO ADD MORE THAN 2 U.S. QUARTS (1.9 L) OF OIL, MAKE SURE TO DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS BEFORE YOU ADD THE OIL. IF YOU DO NOT DO THIS, YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

CAUTION: DO NOT LET THE ENGINE OIL LEVEL DECREASE TO LESS THAN 2 U.S. QUARTS (1.7 L) FULL. TOO LITTLE OIL CAN CAUSE DAMAGE TO THE ENGINE.

- (1) Open the cover (1) of the remote oil-level control-panel (2).
- (2) Do an operational test of the oil replenishment system to check the serviceability of the system, before you do the servicing of the oil tanks (TASK 79-12-00-710-801).
- (3) Set the switch (3) to the ON position. Make sure the ON indicator light (4) comes on.
- (4) If the LH FULL (5) and RH FULL (6) indicator lights come on, the two (left and right) engine oil tanks are full.

EFFECTIVITY: ALL

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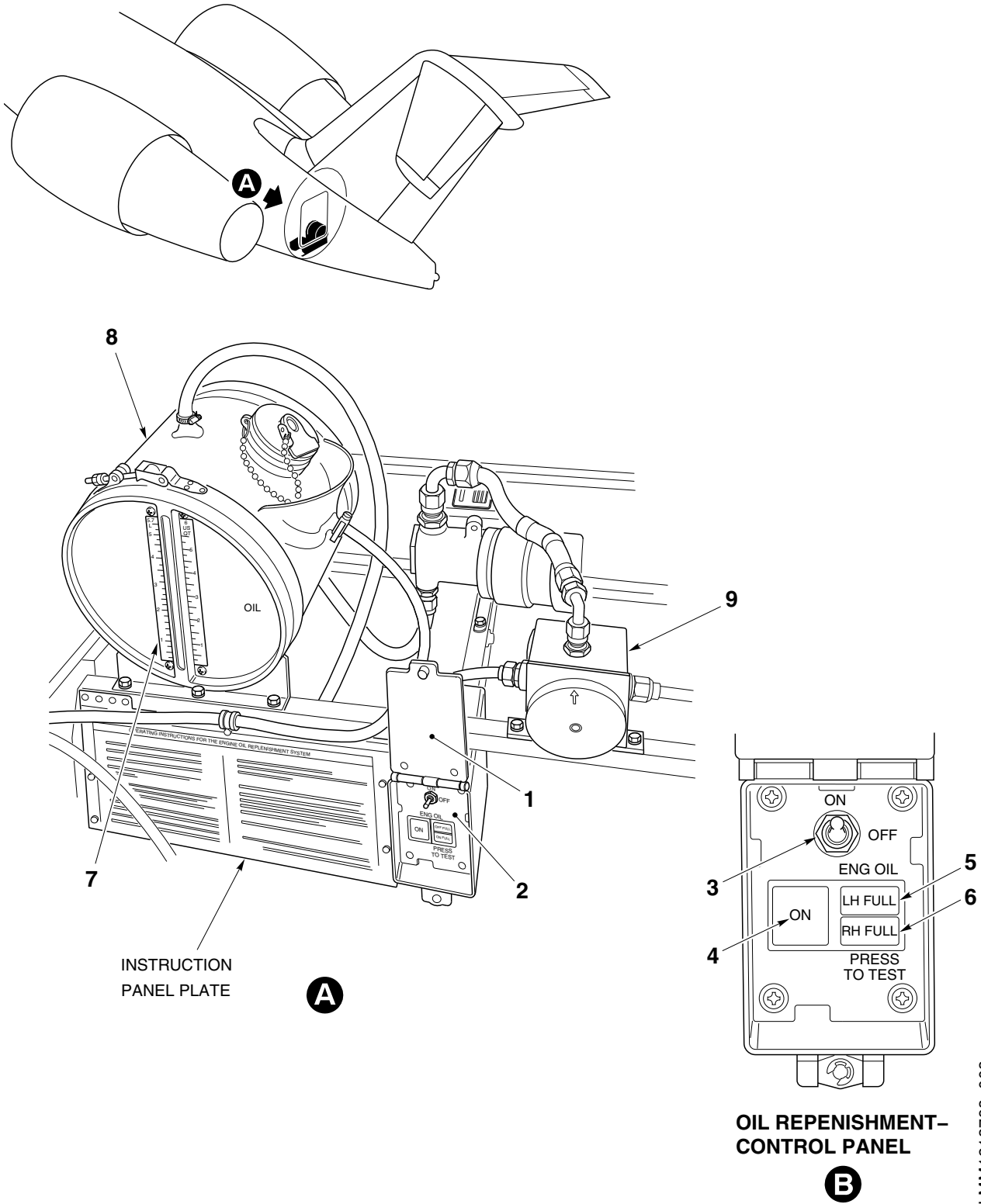
- (5) If only the LH FULL (5) indicator light comes on, and the RH FULL (6) indicator light does not come on, then the right engine oil needs servicing. Fill the right engine oil tank from the remote replenishment system (TASK 12-13-79-612-802).
- (6) If only the RH FULL (6) indicator light comes on, and the LH FULL (5) indicator light does not come on, then the left engine oil needs servicing. Fill the left engine oil tank from the remote replenishment system (TASK 12-13-79-612-802).
- (7) Set the switch (3) to the OFF position. Make sure that all the indicator switch lights go off.
- (8) Close the cover (1) of the remote oil-level control-panel (2).
- (9) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

F. Close Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.
- (2) Close the aft equipment compartment access-door (311BB).

EFFECTIVITY: ALL



Servicing of the Engine Oil System With the Remote Replenishment System
 Figure 302

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EFFECTIVITY: ALL

TASK 12-13-79-612-801

3. Replenishing of the Oil Supply at Engine

A. Service Bulletin List

SERVICE BULLETIN NO.	SERVICE BULLETIN TITLE
CF34-3A1/CF34-3B1 SB 79-0008	OIL SYSTEM – Introduction of improved (non-coated) oil tank on fielded engines and new production engines and elimination of A-sump scavenge pump on new production engines

B. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-680-801	Draining of the Oil Supply at the Engine
TASK 12-13-79-612-804	Servicing of the Engine With a Different Oil Specification or Brand Type
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 71-00-00-866-805	Dry Motor the Engine
TASK 71-11-01-010-801	Opening of the Upper Translating Cowl Door
TASK 71-11-01-410-801	Closing of the Upper Translating Cowl Door
TASK 71-11-01-010-802	Opening of the Lower Translating Cowl Door
TASK 71-11-01-410-802	Closing of the Lower Translating Cowl Door
TASK 71-12-01-010-801	Opening of the Upper Core Cowl Door
TASK 71-12-01-410-801	Closing of the Upper Core Cowl Door
TASK 71-12-01-010-802	Opening of the Lower Core Cowl Door
TASK 71-12-01-410-802	Closing of the Lower Core Cowl Door

EFFECTIVITY: ALL

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C. Tools and Equipment

REFERENCE	DESIGNATION
GSE 24-00-24	Tag, Circuit Breaker
Commercially Available	Container, Fluid, Minimum Capacity 7 U.S. Gallons (26.5 L)

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

D. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil
05-001	Cloth, Cleaner, Low-Lint	MIL-C-85043

E. Job Set-Up

WARNING: OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, YOU CAN CAUSE INJURY TO PERSONS AND DAMAGE TO THE EQUIPMENT.

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).

EFFECTIVITY: ALL

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(2) Open and tag the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

- (3) Open the upper translating cowl door (TASK 71-11-01-010-801).
- (4) Open the lower translating cowl door (TASK 71-11-01-010-802).
- (5) Open the upper core cowl door (TASK 71-12-01-010-801).
- (6) Open the lower core cowl door (TASK 71-12-01-010-802).

F. Procedure

Refer to Figure 301.

WARNING: RELEASE THE PRESSURE IN THE ENGINE HOUSING BEFORE YOU DO THE SERVICING OF THE ENGINE. IF YOU DO NOT RELEASE THE PRESSURE, IT CAN CAUSE A SPRAY OF HOT OIL WHEN YOU REMOVE THE DRAIN PLUG. THIS CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: USE APPROVED SAFETY GOGGLES AND INSULATED GLOVES WHEN YOU FILL OR DRAIN THE ENGINE OIL SYSTEM. HOT OIL CAN COME OUT OF THE OIL DRAIN PLUGS WHEN THEY ARE REMOVED. HOT OIL CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: DO NOT LET THE LUBRICATING OIL STAY ON YOUR SKIN. DO NOT BREATHE THE FUMES RELEASED FROM THE LUBRICATING OIL FOR A LONG TIME. LUBRICATING OIL CAN CAUSE INJURY TO YOUR EYES, NOSE, AND LUNGS.

CAUTION: DO NOT MIX TYPE I OILS WITH TYPE II OILS. CHEMICAL STRUCTURE MAKES THEM INCOMPATIBLE.

CAUTION: DO NOT MIX CASTROL 4000 WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: DO NOT MIX MOBIL RM184A TURBO OIL WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

EFFECTIVITY: ALL

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CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE II IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: DRAIN AND FLUSH THE OIL SYSTEM IF OIL TYPES HAVE BEEN MIXED.

NOTE: If it is necessary to change the oil specification type refer to (TASK 12-13-79-612-804).

Make sure to use an approved filter if you use bulk oil (more than 1 U.S. quart (1 L) containers) in the servicing procedure. Put the bulk oil through a 10-micron paper or a metal filter before it is used in the engine. use a paper filter when the oil is at ambient temperature, and a metal filter when it is at high temperatures.

- (1) Release the lock mechanism from the filler cap (4) or dipstick/filler cap (4).
- (2) Slowly loosen the filler cap (4) or dipstick/filler cap (4) to let pressure out of the housing.
- (3) Put a container below the filler cap (4) or dipstick/filler cap (4) to catch the oil that can come out when the oil tank is filled.
- (4) Remove the filler cap (4) or dipstick/filler cap (4) from the engine oil tank (1).
- (5) Operate the filler and add sufficient oil (approximately 2 U.S. quarts (1.9 L)) to only fill the bottom of the filler neck.

NOTE: If you add oil from a bulk supply, use a filler container to make for easier handling.

CAUTION: IF IT IS NECESSARY TO ADD MORE THAN 2 U.S. QUARTS (1.9 L) OF OIL, MAKE SURE TO DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS BEFORE YOU ADD THE OIL. IF YOU DO NOT DO THIS, YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

- (6) If the engine oil tank is not filled to capacity after the 2 U.S. quarts (1.9 L) are added, do the steps that follow:
 - (a) Install the filler cap (4) or dipstick/filler cap (4), and engage the lock mechanism.
 - (b) Dry motor the engine for 30 seconds (TASK 71-00-00-866-805).
 - (c) Slowly loosen the filler cap (4) or dipstick/filler cap (4) to let pressure out of the housing.
 - (d) On aircraft with sight gauges, examine the sight gauges (2) and (3) in less than 5 minutes after engine shutdown.

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On aircraft without a sight gauge, remove the dipstick/filler cap (4) and examine the oil-level gauge on the dipstick in less than 5 minutes after engine shutdown.

- (e) If the oil level is too low, operate the filler to add more oil.
 - (f) Stop the oil filler when the engine oil system is filled to capacity (level with the bottom of the filler neck).
- (7) Install the filler cap (4) or dipstick/filler cap (4), and engage the lock mechanism.
 - (8) Remove the container from below the filler cap (4) or dipstick/filler cap (4) and discard the oil.
 - (9) Clean all fluid leakage from the engine and the adjacent areas where leakage has occurred, as necessary.
 - (10) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

G. Close Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.
- (2) Close the upper translating cowl door (TASK 71-11-01-410-801).
- (3) Close the lower translating cowl door (TASK 71-11-01-410-802).
- (4) Close the upper core cowl door (TASK 71-12-01-410-801).
- (5) Close the lower core cowl door (TASK 71-12-01-410-802).

EFFECTIVITY: ALL

TASK 12-13-79-612-802

4. Replenishing of the Engine Oil Supply with the Remote Replenishment System

A. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-612-804	Servicing of the Engine With a Different Oil Specification or Brand Type
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 71-00-00-866-805	Dry Motor the Engine
TASK 71-00-00-866-829	Engine Shutdown (Usual)
TASK 79-12-00-710-801	Operational Test of the Oil Replenishment System

B. Tools and Equipment

REFERENCE	DESIGNATION
GSE 24-00-24	Tag, Circuit Breaker

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

C. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil

EFFECTIVITY: ALL

D. Job Set-Up

WARNING: OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, YOU CAN CAUSE INJURY TO PERSONS AND DAMAGE TO THE EQUIPMENT.

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).
- (2) Open and tag the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

- (3) Open the aft equipment compartment access-door (311BB).

E. Procedure

Refer to Figure 303.

WARNING: USE APPROVED SAFETY GOGGLES AND INSULATED GLOVES WHEN YOU FILL OR DRAIN THE ENGINE OIL SYSTEM. HOT OIL CAN COME OUT OF THE OIL DRAIN PLUGS WHEN THEY ARE REMOVED. HOT OIL CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: DO NOT LET THE LUBRICATING OIL STAY ON YOUR SKIN. DO NOT BREATHE THE FUMES RELEASED FROM THE LUBRICATING OIL FOR A LONG TIME. LUBRICATING OIL CAN CAUSE INJURY TO YOUR EYES, NOSE, AND LUNGS.

CAUTION: EXAMINE THE OIL QUANTITY BETWEEN THREE MINUTES AND TWO HOURS AFTER A USUAL ENGINE SHUTDOWN, OR IN LESS THAN 5 MINUTES AFTER A DRY MOTOR RUN. IF THE ENGINE HAS NOT BEEN OPERATED FOR MORE THAN TWO HOURS, DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS. IF YOU DO NOT DO THIS, THE QUANTITY INDICATION WILL BE INCORRECT AND YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

EFFECTIVITY: ALL

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CAUTION: DO NOT LET THE ENGINE OIL LEVEL DECREASE TO LESS THAN 2 U.S. QUARTS (1.7 L) FULL. TOO LITTLE OIL CAN CAUSE DAMAGE TO THE ENGINE.

CAUTION: DO NOT MIX TYPE I OILS WITH TYPE II OILS. CHEMICAL STRUCTURE MAKES THEM INCOMPATIBLE.

CAUTION: DO NOT MIX CASTROL 4000 WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: DO NOT MIX MOBIL RM184A TURBO OIL WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE II IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: DRAIN AND FLUSH THE OIL SYSTEM IF OIL TYPES HAVE BEEN MIXED.

NOTE: If it is necessary to change the oil specification type refer to (TASK 12-13-79-612-804).

Make sure to use an approved filter if you use bulk oil (more than 1 U.S. quart (1 L) containers) in the servicing procedure. Put the bulk oil through a 10-micron paper or a metal filter before it is used in the engine. use a paper filter when the oil is at ambient temperature, and a metal filter when it is at high temperatures.

- (1) Examine the sight gauge (7) on the oil tank (8) for the remote replenishment system. Make a record of the oil level in the tank.
- (2) Do an operational test of the oil replenishment system to check the serviceability of the system, before you try to add oil to the engines (TASK 79-12-00-710-801).
- (3) Turn and hold the manual selector valve (9) to the LEFT or the RIGHT position (for left or right engine) as applicable.
- (4) Open the cover (1) of the remote oil-level control-panel (2).
- (5) Set the switch (3) to the ON position. Make sure that the ON indicator light (4) comes on.
- (6) Monitor the quantity of oil in the replenishing tank to make sure that the level decreases as the applicable engine(s) are filled.
- (7) At the same time, monitor the indications on the remote oil-level control-panel (2).

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- (8) Hold the manual selector valve (9) until one of the conditions that follow occurs:
 - (a) The LH FULL (RH FULL) indicator light on the control panel comes on and the replenishing pump automatically stops.
 - (b) The oil quantity in the oil replenishment tank (8) decreases by 2 U.S. quarts (1.9 L).
- (9) Release the manual selector valve (9).

CAUTION: IF IT IS NECESSARY TO ADD MORE THAN 2 U.S. QUARTS (1.9 L) OF OIL, MAKE SURE TO DO A DRY MOTOR RUN AT 28% N2 FOR 30 SECONDS BEFORE YOU ADD THE OIL. IF YOU DO NOT DO THIS, YOU CAN FILL THE ENGINE WITH TOO MUCH OIL. THIS CAN CAUSE DAMAGE TO THE ENGINE.

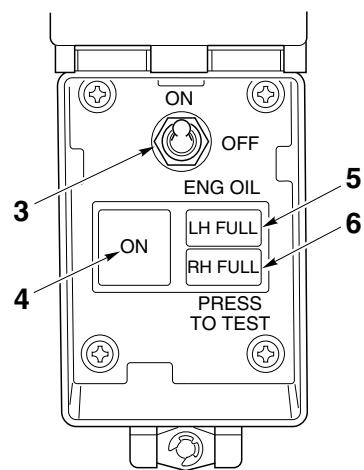
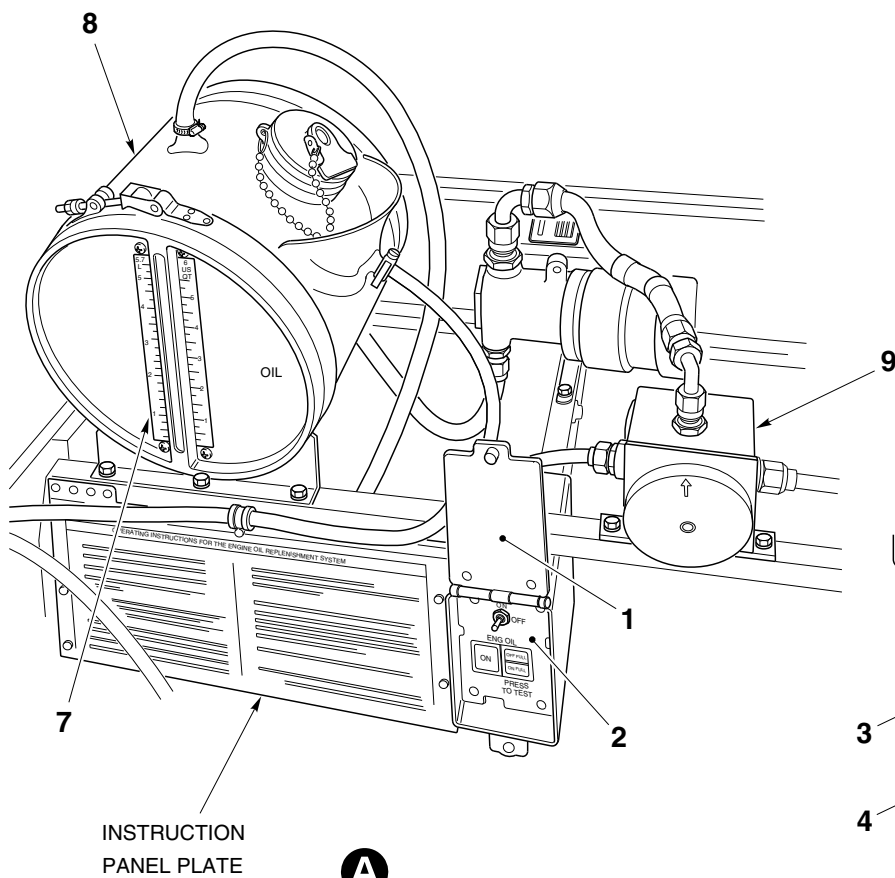
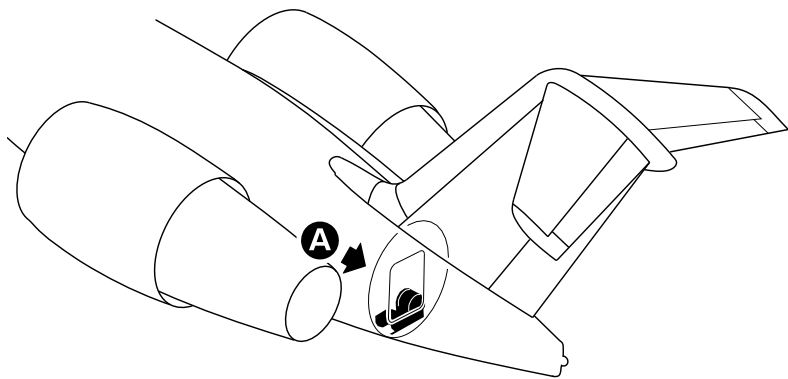
- (10) If the LH FULL (5) or RH FULL (6) indicator lights do not come on, the applicable engine oil tanks are not full and it is necessary to do the steps that follow:
 - (a) Dry motor the applicable engine for 30 seconds (TASK 71-00-00-866-805).
 - (b) Do steps (6) to (10) again, until the LH FULL (5) and RH FULL (6) indicator lights come on, to show that the two (left and right) engine oil tanks are full.
- (11) Examine the sight gauge (7) on the oil tank (8) for the remote replenishment system. Make a record of the quantity of oil that was put into the engine(s).
- (12) Set the switch (3) to the OFF position. Make sure that all the indicator switch lights go off.
- (13) Close the cover (1) on the remote oil-level control-panel (2).
- (14) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

F. Close Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.
- (2) Close the aft equipment compartment access-door (311BB).

EFFECTIVITY: ALL



**OIL REPLENISHMENT-
 CONTROL PANEL**

B

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Servicing of the Engine Oil System With the Remote Replenishment System
 Figure 303

EFFECTIVITY: ALL

TASK 12-13-79-612-803

5. Servicing of the Remote Replenishing System

A. Reference Information

REFERENCE	DESIGNATION
TASK 20-22-00-910-801	Torquing of Plumbing Line Fittings
TASK 20-50-00-000-801	Removal of Lockwire
TASK 20-50-00-400-801	Installation of Lockwire
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 79-12-00-710-801	Operational Test of the Oil Replenishment System
TASK 79-12-01-680-801	Draining of the Oil Replenishing Tank

B. Tools and Equipment

REFERENCE	DESIGNATION
GSE 24-00-24	Tag, Circuit Breaker
Commercially Available	Container, Fluid, Minimum Capacity 6 U.S. Quarts (5.70 L)

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

EFFECTIVITY: ALL

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C. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil
05-001	Cloth, Cleaner, Low-Lint	MIL-C-85043

D. Parts

REFERENCE	NAME OF PART	QUANTITY	IPC SEQUENCE NO.
3	Packing, Preformed	1	79-12-01-01-050

E. Job Set-Up

WARNING: OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, YOU CAN CAUSE INJURY TO PERSONS AND DAMAGE TO THE EQUIPMENT.

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).
- (2) Open and tag the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221

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LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L10	ENG START L	221
CBP-5	B3	OIL BYPASS IND	311
CBP-5	B4	ENG OIL POWER	311

(3) Open the aft equipment compartment access-door (311BB).

F. Procedure

Refer to Figure 304.

(1) If leakage occurs at the drain valve (5), do the steps that follow:

(a) Drain the oil replenishing tank (TASK 79-12-01-680-801).

WARNING: WEAR EYE PROTECTION WHEN YOU CUT THE LOCKWIRE. WHEN THE LOCKWIRE IS CUT, PIECES CAN HIT YOUR EYES AND CAUSE INJURIES.

(b) Remove and discard the lockwire from the drain valve (4) (TASK 20-50-00-000-801).

(c) Slowly remove the drain valve (5).

(d) Remove and discard the packing (3).

(e) Install packing (3) on drain valve (5).

(f) Torque the drain valve (5) (TASK 20-22-00-910-801).

WARNING: WEAR EYE PROTECTION WHEN YOU CUT THE LOCKWIRE. WHEN THE LOCKWIRE IS CUT, PIECES CAN HIT YOUR EYES AND CAUSE INJURIES.

(g) Safety the drain valve (5) with lockwire (TASK 20-50-00-400-801).

CAUTION: DO NOT MIX TYPE I OILS WITH TYPE II OILS. CHEMICAL STRUCTURE MAKES THEM INCOMPATIBLE.

CAUTION: DO NOT MIX CASTROL 4000 WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: DO NOT MIX MOBIL RM184A TURBO OIL WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

EFFECTIVITY: ALL

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CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE II IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: DRAIN AND FLUSH THE OIL SYSTEM IF OIL TYPES HAVE BEEN MIXED.

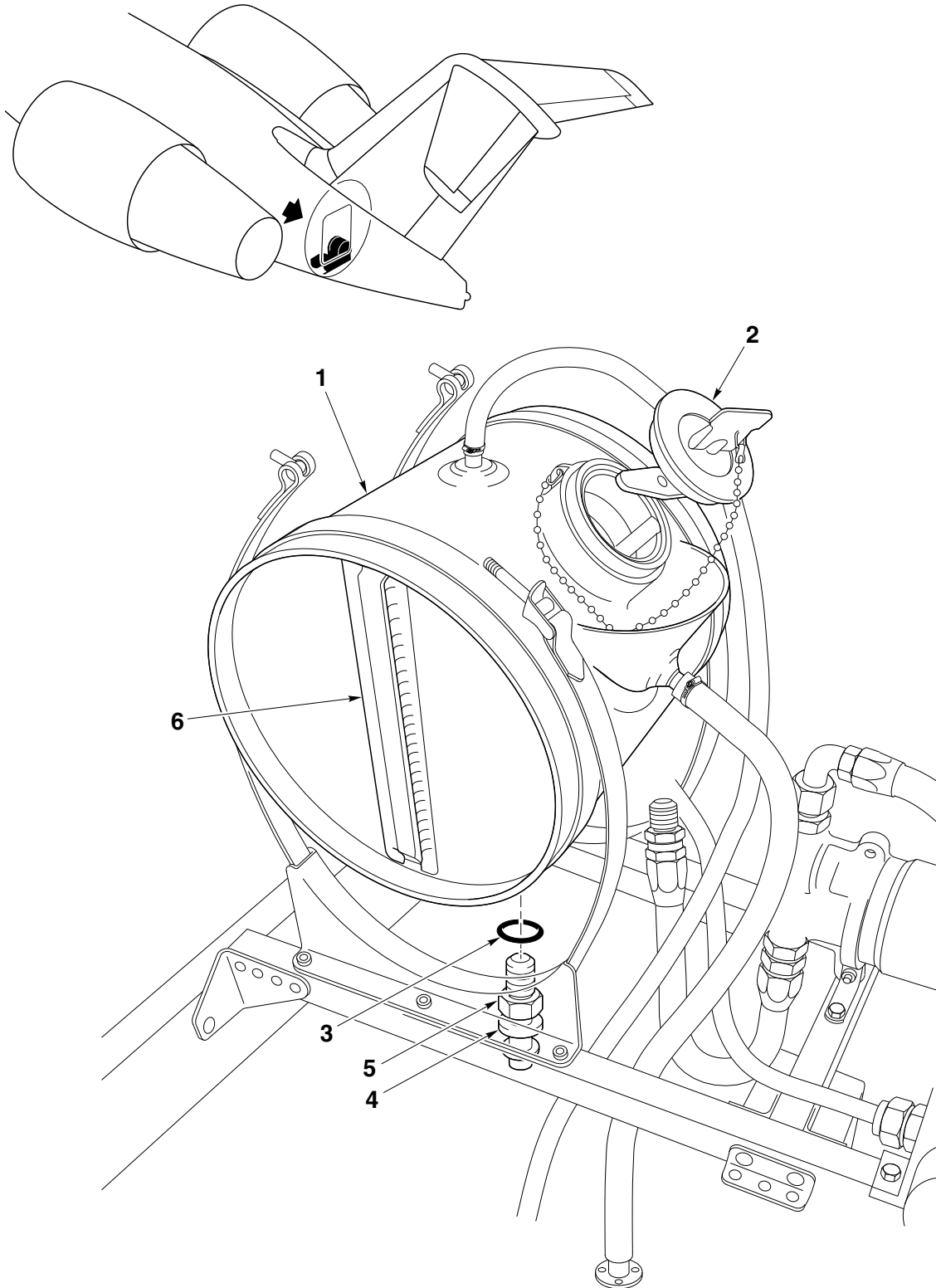
- (2) Slowly loosen the oil filler cap (2) to let pressure out of the tank (1).
- (3) Remove the oil filler cap (2).
- (4) Examine the oil quantity gauge (6) while you add oil to the tank.
- (5) Operate the filler to add oil to the tank.
- (6) Stop the oil filler when the remote replenishment system is filled to capacity.
- (7) Install the oil filler cap (2).
- (8) Clean all fluid leakage from the remote replenishment system and the adjacent areas where leakage has occurred, as necessary.
- (9) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221
CBP-5	B3	OIL BYPASS IND	311
CBP-5	B4	ENG OIL POWER	311

G. Close Out

- (1) Do an operational test of the oil replenishment system (TASK 79-12-00-710-801).
- (2) Remove all tools, equipment, and unwanted materials from the work area.
- (3) Close the aft equipment compartment access-door (311BB).

EFFECTIVITY: ALL



Servicing of the Remote Replenishment Tank
Figure 304

EFFECTIVITY: ALL

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TASK 12-13-79-612-804

6. Servicing of the Engine with a Different Oil Specification Type

A. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-616-801	Flushing of the Engine Oil System
TASK 12-13-79-680-801	Draining of the Oil Supply at the Engine
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions

B. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil

C. Job Set-Up

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).

D. Procedure

NOTE: An oil change is usually only necessary when a specified type of oil is changed, or if there is a risk of contamination in the oil supply.

- (1) Fully drain the engine oil supply (TASK 12-13-79-680-801).
- (2) Flush the engine oil supply (TASK 12-13-79-616-801).

EFFECTIVITY: ALL

E. Close Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.

EFFECTIVITY: ALL

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TASK 12-13-79-616-801

7. Flushing of the Engine Oil System

A. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-610-801	Quantity Check of the Oil Level in the Engine
TASK 12-13-79-612-801	Replenishing of the Oil Supply at the Engine
TASK 12-13-79-612-802	Replenishing of the Engine Oil Supply With the Remote Replenishment System
TASK 12-13-79-612-803	Servicing of the Remote Replenishment System
TASK 12-13-79-680-801	Draining of the Oil Supply at the Engine
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 71-00-00-866-807	Start the Engine
TASK 71-00-00-866-829	Engine Shutdown (Usual)
TASK 79-12-01-680-801	Draining of the Oil Replenishment Tank

B. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
03-001	Oil, Lubricating, Aircraft Turbine Engine, Synthetic Base. Recommended for use in the primary engines – Model Nos. CF34-3B/ -3B1	MIL-PRF-7808 Type I British Petroleum Turbo Oil 2389 Mobile Avrex S Turbo 256 MIL-PRF-23699 Type II Aeroshell 500 Aeroshell 560 British Petroleum or Exxon Turbo Oil 2380 Castrol 5000 Mobil Jet Engine Oil II Mobil Jet Engine Oil 291 Other Approved Oils Castrol 4000 Mobil RM184A Turbo Oil

EFFECTIVITY: ALL

C. Job Set-Up

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).

D. Procedure

WARNING: USE APPROVED SAFETY GOGGLES AND INSULATED GLOVES WHEN YOU FILL OR DRAIN THE ENGINE OIL SYSTEM. HOT OIL CAN COME OUT OF THE OIL DRAIN PLUGS WHEN THEY ARE REMOVED. HOT OIL CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: DO NOT LET THE LUBRICATING OIL STAY ON YOUR SKIN. DO NOT BREATHE THE FUMES RELEASED FROM THE LUBRICATING OIL FOR A LONG TIME. LUBRICATING OIL CAN CAUSE INJURY TO YOUR EYES, NOSE, AND LUNGS.

- (1) Drain the oil replenishment tank (TASK 79-12-01-680-801).

- (2) Drain the engine oil tank and the engine accessory gearbox (TASK 12-13-79-680-801).

NOTE: If you do the flushing of the engine oil system to change to a different oil specification type, it is not necessary to replace the oil filter.

- (3) Do the servicing of the remote replenishment system (TASK 12-13-79-612-803).

- (4) Do the replenishing of the engine oil supply with the remote replenishment system (TASK 12-13-79-612-802).

NOTE: The engine oil tank has approximately 1 U.S. quart (0.95 L) more capacity than the oil replenishment tank. You will need to service the remote replenishment system more than once to fill the engine oil tank completely.

- (5) Do a quantity check of the oil level in the engine (TASK 12-13-79-610-801).

- (6) Start and operate the engine for a minimum of five minutes (TASK 71-00-00-866-807).

- (7) Do a shutdown of the engine (TASK 71-00-00-866-829).

- (8) Drain the engine oil tank and the engine accessory gearbox again (TASK 12-13-79-680-801).

- (9) Do the servicing of the engine oil supply at the engine (TASK 12-13-79-612-801) or;

- (10) Do the replenishing of the engine oil supply with the remote replenishment system (TASK 12-13-79-612-802).

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(11) Do a quantity check of the oil level in the engine (TASK 12-13-79-610-801).

E. Close Out

(1) Remove all tools, equipment, and unwanted materials from the work area.

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TASK 12-13-79-680-801

8. Draining of the Oil Supply at the Engine

A. Service Bulletin List

SERVICE BULLETIN NO.	SERVICE BULLETIN TITLE
CF34-3A1/-3B1 SB 79-0008	OIL SYSTEM – Introduction of improved (non-coated) oil tank on fielded engines and new production engines and elimination of A-sump scavenge pump on new production engines

B. Reference Information

REFERENCE	DESIGNATION
TASK 12-13-79-612-801	Replenishing of the Oil Supply at the Engine
TASK 12-13-79-612-802	Replenishing of the Oil Supply with the Remote Replenishment System
TASK 20-50-00-000-801	Removal of Lockwire
TASK 20-50-00-400-801	Installation of Lockwire
TASK 24-00-00-910-801	Electrical/Electronic Safety Precautions
TASK 71-11-01-010-801	Opening of the Upper Translating Cowl Door
TASK 71-11-01-010-802	Opening of the Lower Translating Cowl Door
TASK 71-11-01-410-801	Closing of the Upper Translating Cowl Door
TASK 71-11-01-410-802	Closing of the Lower Translating Cowl Door
TASK 71-12-01-010-801	Opening of the Upper Core Cowl Door
TASK 71-12-01-010-802	Opening of the Lower Core Cowl Door
TASK 71-12-01-410-801	Closing of the Upper Core Cowl Door
TASK 71-12-01-410-802	Closing of the Lower Core Cowl Door
SEI-779	CF34 Turbo fan engine illustrated parts catalog

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C. Tools and Equipment

REFERENCE	DESIGNATION
GSE 24-00-24	Tag, Circuit Breaker
Commercially Available	Torque Wrench, 155 to 175 lbf in (17.50 to 19.80 Nm)
Commercially Available	Torque Wrench, 270 to 300 lbf in (30.50 to 33.90 Nm)
Commercially Available	Torque Wrench, 450 to 550 lbf in (50.80 to 62.10 Nm)
Commercially Available	Container, Fluid, Minimum Capacity 7 U.S. Gallons

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

D. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
05-001	Cloth, Cleaner, Low-Lint	MIL-C-85043
05-007	Lockwire	MS20995F32

E. Job Set-Up

- (1) Obey all the electrical/electronic safety precautions (TASK 24-00-00-910-801).
- (2) Open and tag the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

- (3) Open the upper translating cowl door (TASK 71-11-01-010-801).
- (4) Open the lower translating cowl door (TASK 71-11-01-010-802).

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- (5) Open the upper core cowl door (TASK 71-12-01-010-801).
- (6) Open the lower core cowl door (TASK 71-12-01-010-802).

F. Procedure

Refer to Figure 305

WARNING: RELEASE THE PRESSURE IN THE ENGINE HOUSING BEFORE YOU DO THE SERVICING OF THE ENGINE. IF YOU DO NOT RELEASE THE PRESSURE, IT CAN CAUSE A SPRAY OF HOT OIL WHEN YOU REMOVE THE DRAIN PLUG. THIS CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: USE APPROVED SAFETY GOGGLES AND INSULATED GLOVES WHEN YOU FILL OR DRAIN THE ENGINE OIL SYSTEM. HOT OIL CAN COME OUT OF THE OIL DRAIN PLUGS WHEN THEY ARE REMOVED. HOT OIL CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: DO NOT LET THE LUBRICATING OIL STAY ON YOUR SKIN. DO NOT BREATHE THE FUMES RELEASED FROM THE LUBRICATING OIL FOR A LONG TIME. LUBRICATING OIL CAN CAUSE INJURY TO YOUR EYES, NOSE, AND LUNGS.

- (1) Slowly loosen the filler cap (4) or dipstick/filler cap (4) to let pressure out of the housing.

NOTE: To disengage the lock mechanism, lift and turn the filler cap (4) or dipstick/filler cap (4) counterclockwise.

- (2) Put a container below the drain cap (5) located below the scavenge pump to catch the oil that can come out when the engine oil tank is drained.
- (3) Slowly remove the oil-tank drain cap (5).
- (4) Drain the necessary quantity of oil from the engine oil tank.

NOTE: If the oil tank is too full, drain 1.5 U.S. quarts (1.4 L) of oil from the engine oil tank.

- (5) Immediately install the drain cap (5).
- (6) Torque the oil-tank drain cap (5) from 270 to 300 lbf in (30.50 to 33.90 Nm).
- (7) Remove the container from below the drain cap (5) and discard the oil.

EFFECTIVITY: ALL

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- (8) If the engine oil supply is not replenished immediately, or if it is not necessary to drain the accessory gearbox, install the filler cap (4) or dipstick/filler cap (4) to prevent contamination.

NOTE: To engage the lock mechanism, lift and turn the filler cap (4) or dipstick/filler cap (4) clockwise.

- (9) If it is necessary to drain more oil from the engine oil system, do the subsequent procedure.

WARNING: USE EYE PROTECTION WHEN YOU CUT THE LOCKWIRE. IF YOU DO NOT USE EYE PROTECTION, PIECES OF THE LOCKWIRE THAT BREAK OFF CAN HIT YOUR EYES AND CAUSE INJURY.

WARNING: USE APPROVED SAFETY GOGGLES AND INSULATED GLOVES WHEN YOU FILL OR DRAIN THE ENGINE OIL SYSTEM. HOT OIL CAN COME OUT OF THE OIL DRAIN PLUGS WHEN THEY ARE REMOVED. HOT OIL CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: DO NOT LET THE LUBRICATING OIL STAY ON YOUR SKIN. DO NOT BREATHE THE FUMES RELEASED FROM THE LUBRICATING OIL FOR A LONG TIME. LUBRICATING OIL CAN CAUSE INJURY TO YOUR EYES, NOSE, AND LUNGS.

- (10) On engines with S/N 872001 to 872173, do as follows:

- (a) Remove and discard the lockwire from the drain plug (6) on the accessory gearbox (TASK 20-50-00-000-801).
- (b) Put a container below the drain plug (6) to catch the oil that can come out when the accessory gearbox is drained.
- (c) Remove the drain plug (6). Discard the packing (7).

WARNING: USE APPROVED SAFETY GOGGLES AND INSULATED GLOVES WHEN YOU FILL OR DRAIN THE ENGINE OIL SYSTEM. HOT OIL CAN COME OUT OF THE OIL DRAIN PLUGS WHEN THEY ARE REMOVED. HOT OIL CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

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WARNING: DO NOT LET THE LUBRICATING OIL STAY ON YOUR SKIN. DO NOT BREATHE THE FUMES RELEASED FROM THE LUBRICATING OIL FOR A LONG TIME. LUBRICATING OIL CAN CAUSE INJURY TO YOUR EYES, NOSE, AND LUNGS.

CAUTION: USE TWO WRENCHES WHEN YOU REMOVE THE HOSES/TUBES. USE ONE WRENCH TO HOLD THE FITTING, AND THE OTHER WRENCH TO LOOSEN THE COUPLING NUT. IF YOU DO NOT DO THIS YOU CAN CAUSE DAMAGE TO THE COMPONENTS.

(11) On engines with S/N 872174 and subs, do as follows:

- (a) Put a container below the reducer elbow (8) to catch the oil that can come out when the accessory gearbox is drained.
- (b) Disconnect the hose assembly (9) from the reducer elbow (8).
- (c) Loosen the nut (10). Remove the reducer elbow (8).
- (d) Remove and discard the back up washer (11) and the packing (12).

(12) Drain the accessory gear box of all the oil.

(13) On engines with S/N 872001 to 872173, do as follows:

- (a) Lubricate a new packing (7) with new engine oil.
- (b) Install the drain plug (6) on the accessory gear box with the packing (7).
- (c) Torque the drain plug (6) from 155 to 175 lbf in (17.5 to 19.8 Nm).
- (d) Safety the drain plug (6) with lockwire (TASK 20-50-00-400-801).

CAUTION: USE TWO WRENCHES WHEN YOU TORQUE THE HOSES/TUBES. USE ONE WRENCH TO HOLD THE FITTING, AND THE OTHER WRENCH TO TORQUE THE COUPLING NUT. YOU CAN CAUSE DAMAGE TO THE COMPONENTS.

(14) On engines with S/N 872174 and subs, do as follows:

- (a) Lubricate a new packing (12) with new engine oil.
- (b) Install the back up washer (11) and the packing (12) on the reducer elbow (8).
- (c) Install the reducer elbow (8) on the accessory gear box and tighten the nut (10) by hand. Do not torque the nut (10) at this time.
- (d) Connect the coupling nut of the hose assembly (9) to the reducer elbow (8).

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- (e) Torque the coupling nut of the hose assembly (9) from 450 to 550 lbf in (50.8 to 62.1 Nm).
- (f) Torque the nut (10) on the reducer elbow (8) from 155 to 175 lbf in (17.5 to 19.8 Nm).

(15) Remove the container and discard the drained oil.

(16) If the engine oil supply is not replenished immediately, install the filler cap (4) to prevent contamination.

NOTE: To engage the lock mechanism, lift and turn the filler cap (4) clockwise.

CAUTION: DO NOT MIX TYPE I OILS WITH TYPE II OILS. CHEMICAL STRUCTURE MAKES THEM INCOMPATIBLE.

CAUTION: DO NOT MIX CASTROL 4000 WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: DO NOT MIX MOBIL RM184A TURBO OIL WITH ANY OTHER OIL. OIL CONTAMINATION CAN OCCUR.

CAUTION: MIXING DIFFERENT APPROVED BRANDS OF TYPE II IS AUTHORIZED. REFER TO THE GENERAL ELECTRIC SERVICE MANUAL BEFORE MIXING OIL BRANDS.

CAUTION: DRAIN AND FLUSH THE OIL SYSTEM IF OIL TYPES HAVE BEEN MIXED.

(17) If necessary, do the servicing of the engine oil supply as follows:

- (a) Do the servicing of the engine oil supply at the engine (TASK 12-13-79-612-801) or;
- (b) Do the servicing of the engine oil supply with the remote replenishment system (TASK 12-13-79-612-802).

(18) Clean all fluid leakage from the engine and the adjacent areas where leakage has occurred, as necessary.

(19) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NUMBER	CB NAME	ZONE
CBP-1	L7	ENG IGN A	221
CBP-1	L8	ENG IGN B	221
CBP-1	L9	ENG START R	221
CBP-1	L10	ENG START L	221

EFFECTIVITY: ALL

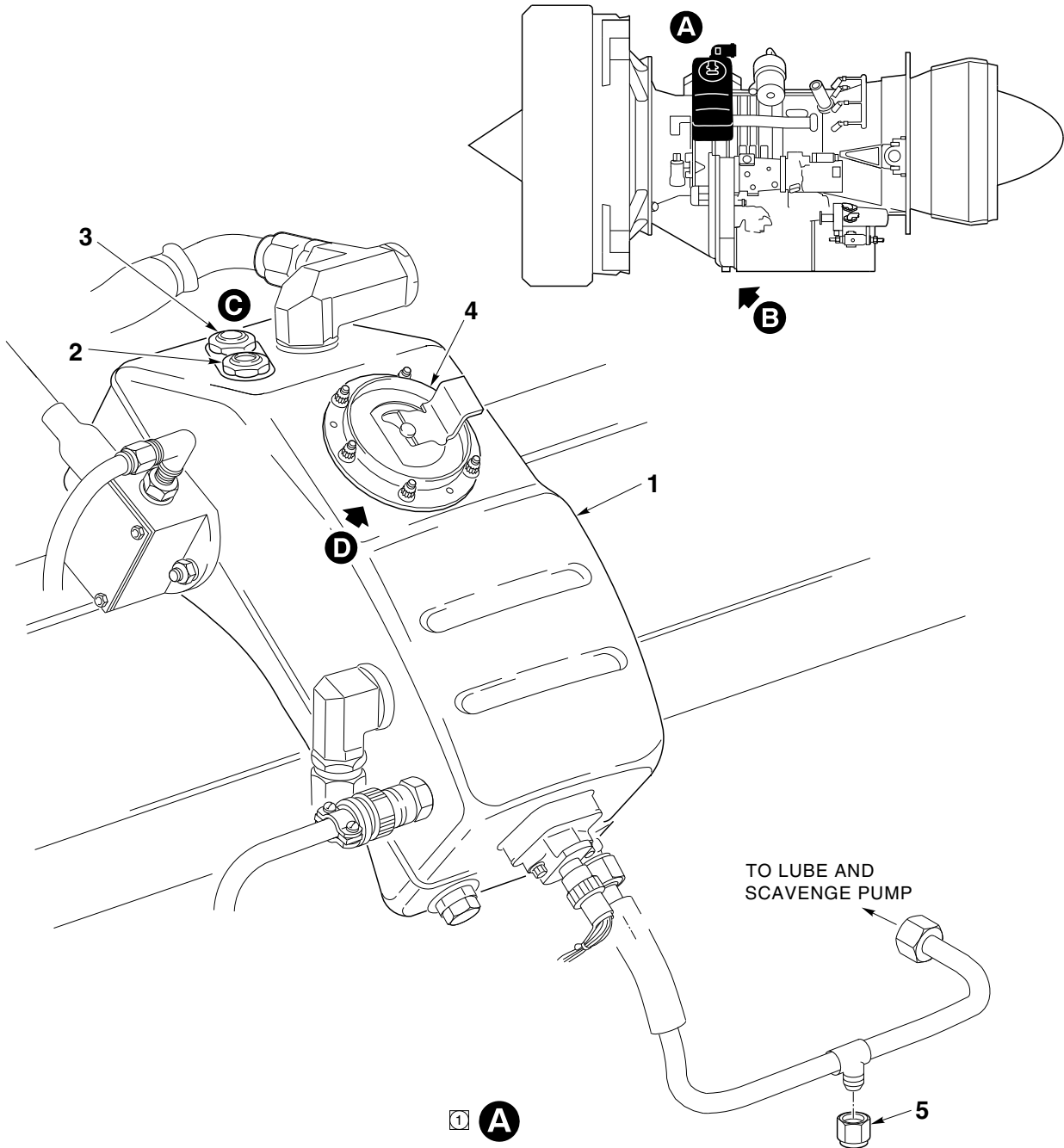
G. Close Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.
- (2) Close the upper core-cowl door (TASK 71-12-01-410-801).
- (3) Close the lower core-cowl door (TASK 71-12-01-410-802).
- (4) Close the upper translating-cowl door (TASK 71-11-01-410-801).
- (5) Close the lower translating-cowl door (TASK 71-11-01-410-802).

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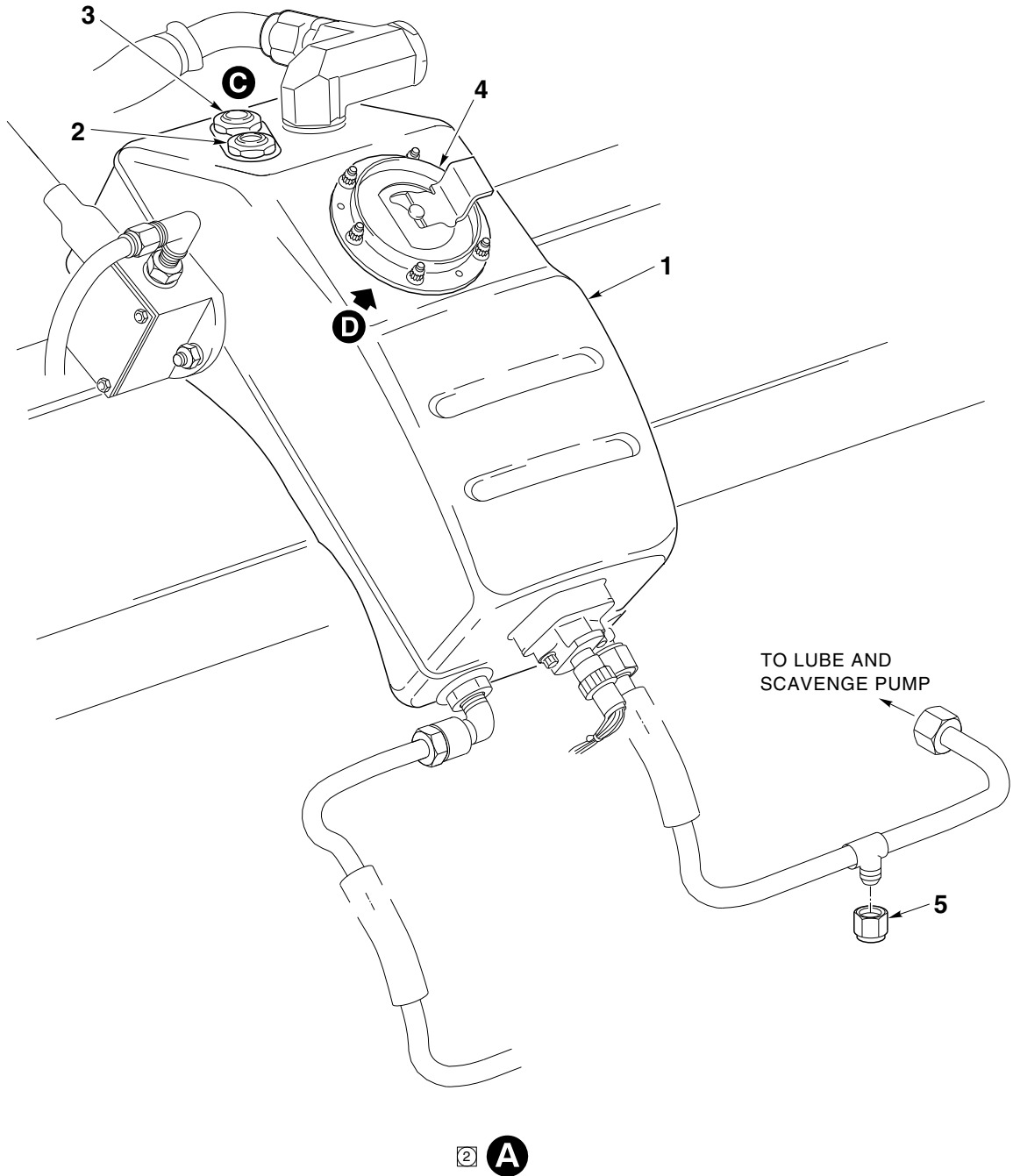
EFFECTIVITY

- ① ENGINE S/N872001 TO 872173 CF34-3A1/3B1 PRE SB79-0008
- ② ENGINE S/N872001 TO 872173 CF34-3A1/3B1 POST SB79-0008 AND ENGINE S/N872174 AND SUBS
- ③ ENGINE S/N872001 TO 872173
- ④ ENGINE S/N872174 AND SUBS

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Servicing of the Engine Oil System at the Engine
 Figure 305 (Sheet 1 of 3)

EFFECTIVITY: ALL



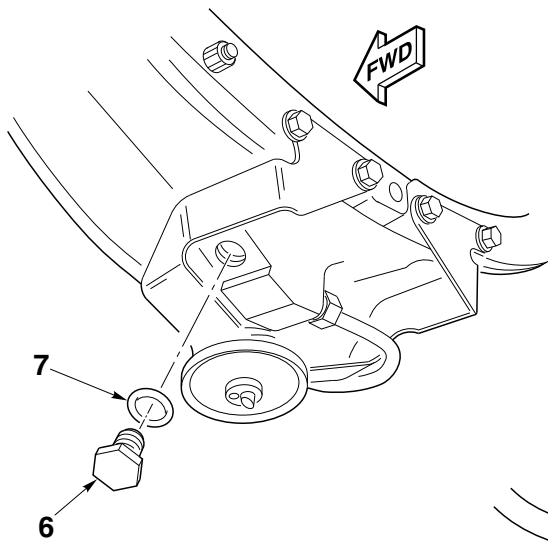
Servicing of the Engine Oil System at the Engine
Figure 305 (Sheet 2 of 3)

EFFECTIVITY: ALL

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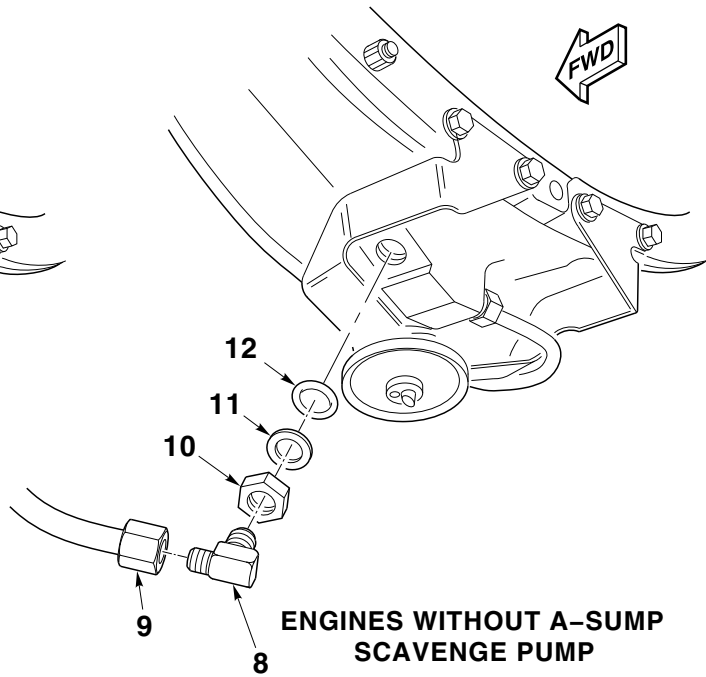
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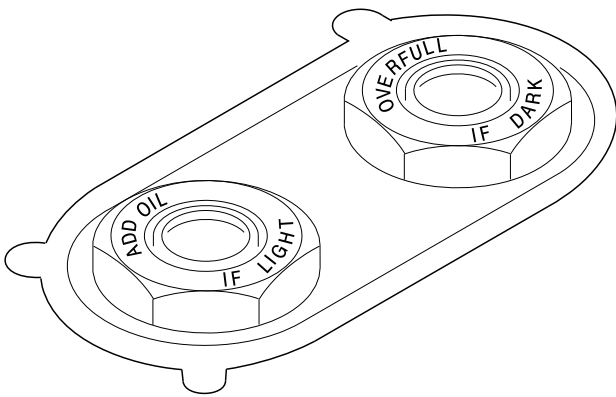
**ENGINES WITH A-SUMP
SCAVENGE PUMP**

③ **B**



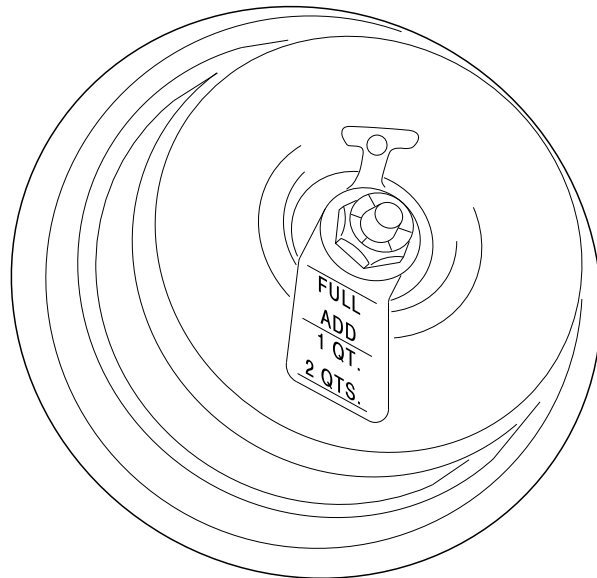
**ENGINES WITHOUT A-SUMP
SCAVENGE PUMP**

④ **B**



OIL LEVEL SIGHT GAUGE

C



FILLER CAP

① **D**

NOTE

- ① Filler cap (4) may be replaced by a dipstick/filler cap. When item (4) is a dipstick/filler cap, it is possible that items (2) and (3) are not installed.

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Servicing of the Engine Oil System at the Engine
Figure 305 (Sheet 3 of 3)

EFFECTIVITY: ALL