BOMBARDIER

SERVICE BULLETIN
REVISION TRANSMITTAL SHEET

MODEL CL−600−2B16

Discard the Revision 02 of this Service Bulletin dated Aug. 31/2018 and replace in its entirety with this Revision 03.

Service Bulletin No.	650−28−001		
Date of Basic Issue	Nov 03/2017		
Revision No.	01	Dated	May 14/2018
Revision No.	02	Dated	Aug 31/2018
Revision No.	03	Dated	Jan 03/2019

This Service Bulletin contains special check instructions and must be repeated every 600 flight hours or 12 months, whichever comes first.

This revision has no effect for aircraft on which the Basic Issue, Revision 01 or Revision 02 of this Service Bulletin was done thus no other action is necessary. Do not sign the log book if you have not done this revision. Keep the previous log book entry. You may make an entry as "Not Applicable" for this revision.

This revision is issued to update the compliance time applicable for this Service Bulletin. The changes are as follows:

1. Revise in Paragraph 1.D., the compliance time.

2. Change in Paragraph 1.K., the revision of the Restriction and/or Special Instruction (RSI), C−4127, to Rev. G.

3. Make miscellaneous minor changes, as necessary, with no change of context.

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SERVICE BULLETIN SUMMARY

This Service Bulletin is available at:
my.businessaircraft.bombardier.com

MODEL CL−600−2B16

ATA 28−23, 28−24

FUEL

SPECIAL CHECK - STANDBY FUEL FEED SYSTEM AND AUXILIARY POWER UNIT (APU) FUEL FEED SYSTEM - ENGINE AND APU ELECTRICAL FUEL PUMP CARTRIDGE/CANISTER FUEL LEAKAGE

The information below is provided for your reference. For full details, including labor and part coverage, please see corresponding paragraph contained within this bulletin.

RECOMMENDED SPECIFIED TIME COMPLIANCE	**COMPLIANCE TIME** Refer to Paragraph 1. D.
EFFECTIVITY: AC Serial No. **6050** to **6999**	
MANPOWER: 5 man−hours.	

CONTINUED AIRWORTHINESS (CAW) FLEET CAMPAIGN	YES	☐	NO	☒
TLMC, CH 5 AFFECTED	YES	☐	NO	☒
KITS and/or PARTS	YES	☒	NO	☐
TOOLING/GSE	YES	☐	NO	☒
PLANNING INFORMATION: See important information at the start of Paragraph 1.	YES	☒	NO	☐
DEDICATED SCHEDULE	YES	☐	NO	☒

PREREQUISITE SERVICE BULLETINS: N/A

To place an order for parts or kits, please call Bombardier Aerospace Parts Services at:

514−855−2999 or 1−866−538−1247

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MODEL CL−600−2B16

ATA 28−23, 28−24

FUEL

SPECIAL CHECK - STANDBY FUEL FEED SYSTEM AND AUXILIARY POWER UNIT (APU) FUEL FEED SYSTEM - ENGINE AND APU ELECTRICAL FUEL PUMP CARTRIDGE/CANISTER FUEL LEAKAGE

1. PLANNING INFORMATION

NOTES: 1. **Before you do this bulletin, examine all STC, STA or equivalent action changes to make sure that this bulletin can be completed.**

2. In order to incorporate this Service Bulletin, you must order the following O−rings: Part No's MS29513−034, MS29513−118 and MS29513−142 (for cartridge Part No. 226114−3). And Part No's M25988/3−034, M25988/3−118 and M25988/3−142 (for cartridge Part No. P99C25−603). Refer to Paragraph 3.B.

3. Make sure to complete and submit Appendix 1.

A. Effectivity

CL−600−2B16 aircraft, Serial No. **6050** to **6999**.

NOTE: The instructions given in this Service Bulletin are only applicable to the systems and parts installed at the time of delivery of the aircraft or as changed by Bombardier Aerospace Service Bulletin(s).

B. Reason

There have been reported fuel leaks in engine and APU electrical fuel pump cartridge/canister electrical connectors and conduits.

Refer to applicable governmental agency regulations and requirements and make sure that the work described in this Service Bulletin is performed in compliance with manufacturer's recommendations and/or acceptable industry standards.

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This Service Bulletin gives instructions to verify if there is any possible fuel leakage from LHS or RHS electrical engine pump cartridge/canister at the location of the one belly fairing screw, FS412, BL0.0 (approx.). And verify if there is any possible fuel leakage in the right landing lights compartment or at the location of the one belly fairing screw, FS412, BL0.0 (approx.), from the APU electrical fuel pump.

C. Description

This Service Bulletin gives instructions to:

- Do an inspection for any possible fuel leak from LHS or RHS electrical engine pumps at the location of the one belly fairing screw, FS412, BL0.0 (approx.).
- Do an inspection for any possible fuel leak in the right landing lights compartment or at the location of the one belly fairing screw, FS412, BL0.0 (approx.), from the APU electrical fuel pump conduit outlet,
- Do the necessary testing to make sure that there are no fuel leaks and that the system operates correctly,
- If there are any fuel leaks, contact Bombardier Aerospace Service Engineering for further instructions by submitting a Service Request for Product Support Action (SRPSA) by e−mail at: SRPSA@aero.bombardier.com.

D. Compliance

Recommended within 600 flight hours or 12 months, whichever comes first:

- For A/C delivered on or before November 3, 2017, from Service Bulletin release date (Basic Issue), or
- For A/C delivered after November 3, 2017, from Entry in Service.

This inspection must be repeated every 600 flight hours or 12 months, whichever comes first.

NOTE: If it is not possible to complete all the instructions in this Service Bulletin because of the configuration of the aircraft, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin.

E. Approval

The technical content of this Service Bulletin has been approved under the authority of Transport Canada Civil Aviation (TCCA) Design Approval Organization (DAO) No. DAO #93−Q−02.

NOTES:
1. The technical content of this Service Bulletin is accepted by the FAA under the Canada/USA bilateral Aviation Safety Agreement.
2. The technical content of this Service Bulletin is accepted by EASA under the Canada/EU bilateral Aviation Safety Agreement.

F. Manpower

NOTES: 1. The man−hours given are estimates to help you schedule the tasks given in this bulletin. The estimates are for direct labor performed by an experienced crew and do not include the time for familiarization, planning, aircraft preparation in hangar such as towing and positioning of scaffolds, removal of interior furnishings, repainting, supervision and inspection.

For more information related to the manpower estimates, refer to SB 650−00−002.

2. This Service Bulletin may require consumable materials that have specific curing times (refer to Paragraph 3). The accumulated curing time is not included in the labor estimates and should be considered for planning purposes before you schedule this Service Bulletin.

5 man−hours are necessary for the Special Check.

The labor required to do this special Check is at no cost for aircraft that were in new aircraft warranty at the time of release of this Service Bulletin (Basic Issue) if:

- the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF), and
- this Service Bulletin is scheduled in less than 12 months from its release date (Basic Issue).

The labor required to do the repetitive Special Check are at no cost for aircraft that are in aircraft warranty at the time of incorporation of the repetitive Special Check until a permanent solution is provided and if the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF).

G. Material − Cost and Availability

No kit is necessary to do this Special Check.

The parts listed in Paragraph 3.B are necessary to replace the O−rings for the special check.

The parts are available at no cost for aircraft that were in new aircraft warranty at the time of release of this Service Bulletin (Revision 01) if:

- a no−charge purchase order is sent to Bombardier Aerospace in less than 12 months, from this Service Bulletin release date (Revision 01).

The parts required to do the repetitive Special Check are at no cost for aircraft that are in aircraft warranty at the time of incorporation of the repetitive Special Check until a permanent solution is provided and if the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF).

For those aircraft in new aircraft warranty at the time of Service Bulletin distribution, Smart Parts Plus does not pay for the parts at any time.

For those aircraft out of new aircraft warranty at the time of Service Bulletin distribution, Smart Parts Plus pays for the parts for up to one year from the Service Bulletin distribution date (Revision 01).

H. Tooling

No equipment or special tools are necessary.

I. Weight and Balance

No change.

J. Electrical Load Data

No change.

K. References

- Bombardier Aerospace, Restriction and/or Special Instruction (RSI), C−4127, Rev. G.
- CL−650 Aircraft Maintenance Manual (AMM), Chapters 6, 24, 28, 51 and 53.
- CL−650 Aircraft Illustrated Parts Catalog (AIPC), Chapters 20 and 51.
- Bombardier Aerospace, Standard Practices Manual (SPM), Chapter 20.

L. Other Publications Affected

None.

M. Equivalent Service Bulletins

- For the Challenger 604 aircraft, use SB 604−28−022.
- For the Challenger 605 aircraft, use SB 605−28−010.

2. ACCOMPLISHMENT INSTRUCTIONS

NOTES: 1. All TASKs given in the procedures that follow are from the CL−650 Aircraft Maintenance Manual (AMM) unless otherwise specified.

2. All references made to zones, access panels and/or doors, are from the CL−650 AMM, Chapter 6.

A. Aircraft Setup

NOTE: The steps in the Aircraft Set−Up section of this Service Bulletin are recommended steps. The steps give a recommendation to get access to the work area. This recommendation is to give a safe work area and to minimize possible damage to surrounding aircraft parts. Alternative steps can be used at the operator discretion.

(1) Obey all electrical/electronic safety precautions. Refer to AMM 24−00−00−910−801.

(2) Obey the fuel system safety precautions. Refer to AMM 28−00−00−910−801.

(3) Remove one belly fairing screw located at FS412.00, BL0.0 (approximately). Keep the screw to re−install later. Refer to Figure 1.

B. Special Check − Inspection of the Engines and APU Electric Fuel Pumps Cartridges/Canisters conduit area without removing the fairing

NOTE: If it is not possible to complete all the instructions in this Service Bulletin because of the configuration of the aircraft, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin.

(1) For Aircraft that have replaced the canister connector Part No. KITC93−440 via an SRPSA or SNIEO, and aircraft that replaced the canister assembly Part No. 226115−2 from the time of delivery, inspect canister connector cavities and wiring conduits for fuel leakage as follows: For all other aircraft, proceed to Paragraph 2.B. (2).

(a) Refuel the LH, RH and Auxiliary tank to a minimum of 3,200 lbs in each tank.

(b) Please use Appendix 1 of this Service Bulletin to record your data from this Special Inspection and send it via email: BAG_BBAD_CL600_Program@aero.bombardier.com.

(c) Install the wheel chocks at the nose and main landing gear wheels.

(d) Remove the RHS, LHS and APU fuel pump cartridges. Disregard any fuel found in canister connector during cartridge removal. It is normal that the fuel will splash into the canister connector during removal when aircraft is fueled. Clean canister connector with approved contact cleaner. Refer to the table below for applicable AMM references.

AMM REFERENCES		
	CARTRIDGE REMOVAL	**CARTRIDGE INSTALLATION**
LH Engine Pump	AMM 28−23−02−000−801	AMM 28−23−02−400−801
RH Engine Pump	AMM 28−23−02−000−801	AMM 28−23−02−400−801
APU Pump	AMM 28−24−02−000−801	AMM 28−24−02−400−801

Wait a minimum of four hours, then visually inspect the canister connector cavities and wiring conduits for fuel leakage.

(e) During the four hour wait time, continuously check the canister connectors for leaks. This will provide data for the Information Feedback Sheet (Appendix 1).

NOTE: It is sometimes difficult to detect a small leak. For a quick check, place a colored paper shop towel inside the canister to help identify a leak (color of paper towel will become darker when it is wet).

(f) If there is evidence of a leak at the canister connector, the conduit must be purged of fuel by blowing shop air into the outlet of the conduit in the locations that follow:

(i) For APU boost pump, gain access to the conduit MPE1KD as follows:

a For Aircraft S/N 6050 to 6124, gain access to the conduit MPE1KD at the front spar by removing the RH landing light lens.

b For Aircraft S/N 6125 to 6999, gain access to the conduit MPE1KD at the front spar by removing the RH wing−to−fuselage, fwd fairing (192BB).

(ii) For LH engine boost pump, gain access to the conduit MPE1QA at the front spar by removing the LH wing−to−fuselage, fwd fairing (191BB).

(iii) For RH engine boost pump, gain access to the conduit MPE2QA at the front spar by removing the RH wing−to−fuselage, fwd fairing (192BB).

(g) Once you feel that the fuel is purged, clean the canister connector and repeat the four hour leak check (Steps (e) and (f)).

(h) Visually inspect for any traces of fuel.

(i) If any fuel leakage reoccurs in the inspected areas, submit a Service Request for Product Support Action (SRPSA) by e−mail at: SRPSA@aero.bombardier.com for further instructions.

(j) If no fuel leakage is detected in the inspected areas do the steps that follow:

(i) Remove the existing O−rings from the cartridges and install the new O−rings.

(ii) The aircraft can continue to operate for up to 600 flight hours or 12 months, whichever comes first from the Service Bulletin release date (Basic Issue). This inspection must be repeated every 600 flight hours or 12 months, whichever comes first.

(k) Re−install the cartridges. Refer to the table in step 1.(c) for AMM references.

(l) Make sure you use the Appendix 1 of this Service Bulletin to record your data from the fuel leak inspections, and send it via email: BAG_BBAD_CL600_Program@aero.bombardier.com.

(2) For Aircraft S/N: 6050 to 6999. Inspect the wiring conduits for fuel leakage after operating the boost pumps as per the Steps that follow:

(a) Operate the RHS engine electric fuel pump for 15 minutes before inspecting.

NOTE: Make sure the minimum fuel quantity in the applicable tank for boost pump operation is 500 lbs.

(b) Visually inspect for traces of fuel coming from the RHS engine boost pump at location of belly fairing screw (FS412, BL0.0). Refer to Figure 1.

NOTE: If there's any fuel leakage from the RHS engine boost pump, clean it before you operate the LHS engine boost pump.

(c) Operate the LHS engine electric fuel pump for 15 minutes before inspecting.

(d) Visually inspect for traces of fuel coming from the LHS engine boost pump at location of belly fairing screw (FS412, BL0.0). Refer to Figure 1.

NOTE: If there's any fuel leakage from the LHS engine boost pump, clean it before you operate the APU boost pump.

(e) For Aircraft S/N: 6050 to 6124. Visually inspect for traces of fuel coming from the transparent wiring conduit at the APU Boost Pump conduit outlet by looking through the RHS landing light compartment glass window. Refer to Figure 2.

(i) If fuel leakage is found make sure you record this data and submit the data in a Service Request for Product Support Action (SRPSA) by e−mail at: SRPSA@aero.bombardier.com.

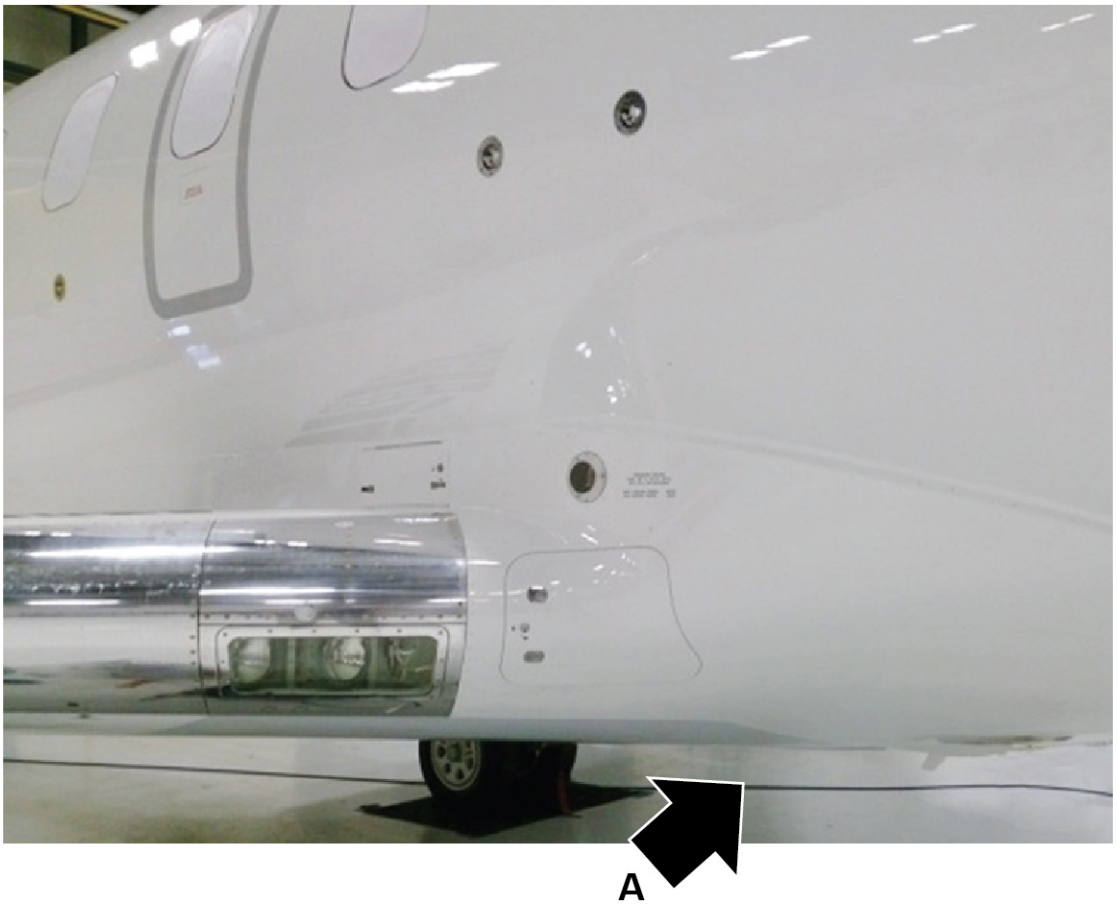
(f) Operate the APU electric fuel pump for 15 minutes minimum before continuing the inspection.

(g) For Aircraft S/N: 6050 to 6124. Visually inspect for traces of fuel coming from the transparent wiring conduit at the APU Boost Pump conduit outlet by looking through the RHS landing light compartment glass window. Refer to Figure 2.

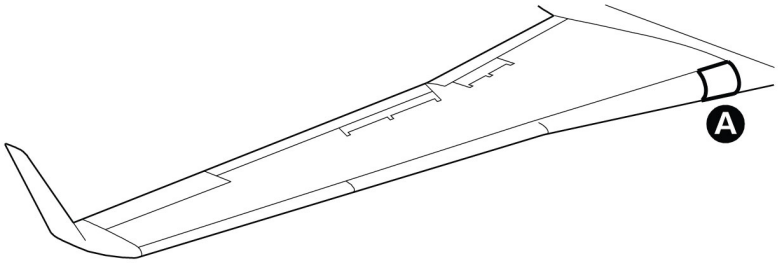
(h) For Aircraft S/N: 6125 to 6999. Visually inspect for traces of fuel coming from the APU boost pump at location of belly fairing screw (FS412, BL0.0). Refer to Figure 1.

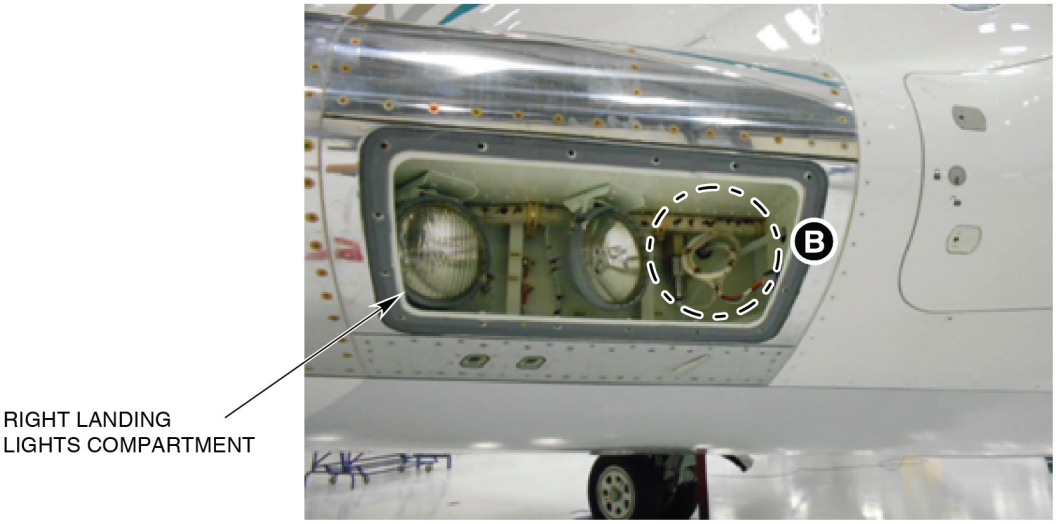
(i) If no fuel leakage is detected in the inspected areas proceed to the Close−Out.

(j) If any fuel leakage reoccurs in the inspected areas, submit a Service Request for Product Support Action (SRPSA) by e−mail at: SRPSA@aero.bombardier.com for further instructions.

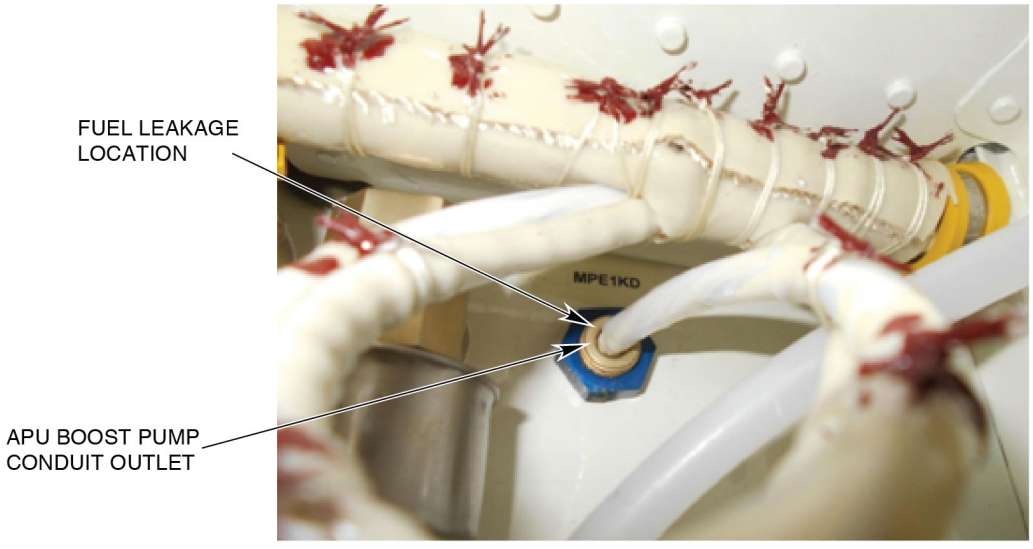


Location of Belly Fairing Drain Hole, FS 412.00, BL 0.0
Figure 1





A



B

DSB2808_001

RHS Landing Lights Compartment − APU Electrical Pump Conduit
Figure 2

C. Testing − Engines and/or APU Electric Fuel Pumps

(1) Test the re−installed LH and RH engine electric fuel pumps. Refer to AMM 28−23−01−710−801.

(2) Test the re−installed APU electric fuel pump. Refer to AMM 28−24−01−710−801.

D. Close−out

NOTE: The steps in the Close−Out section of this Service Bulletin, except for the return−to−service tests, are recommended steps. The steps give a recommendation to install components removed during the Aircraft Set−up. This recommendation is to make sure that the aircraft is safe and ready to return to service. Alternative steps can be used at the operator discretion.

WARNING: FUEL IMBALANCE BETWEEN MAIN WING TANKS MUST BE CORRECTED AT THE END OF THIS CHECK. MOVING, TAXIING OR TOWING THE AIRCRAFT WITH FUEL IMBALANCE EXCEEDING 400 LBS IS PROHIBITED. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

WARNING: FUEL DISTRIBUTION MUST BE RESTORED PER AFM FUEL LIMITATIONS (CHAPTER, 02-05). IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

(1) Redistribute the fuel or refuel tanks to correct any fuel imbalance in the tanks, per AFM fuel limitations.

(2) Install the belly fairing screw at FS412.00, BL0.0 location.

(3) Remove all tools, equipment and unwanted materials from the aircraft.

E. Recording

When this Service Bulletin is completed, make an entry in the aircraft log and send the attached Incorporation Notice to Bombardier Business Aircraft Customer Services (BBACS).

In an effort to improve the quality of our technical communications, we are requesting your feedback. Please take a moment to fill out our easy on−line Service Bulletin survey:

http://csefeedback.aero.bombardier.com

3. MATERIAL INFORMATION

A. Kits

No kit required.

B. Parts

For cartridge Part No. 226114−3, the parts that follow are necessary to do this Service Bulletin and are available from Bombardier Aerospace Parts Services, Montreal:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
MS29513−034	1	Packing, O−Ring	–	–
MS29513−118	1	Packing, O−Ring	–	–
MS29513−142	1	Packing, O−Ring	–	–

For cartridge Part No. P99C25−603, the parts that follow are necessary to do this Service Bulletin and are available from Bombardier Aerospace Parts Services, Montreal:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
M25988/3−034	1	Packing, O−Ring	–	–
M25988/3−118	1	Packing, O−Ring	–	–
M25988/3−142	1	Packing, O−Ring	–	–

NOTE: The part numbers for the items listed above are subject to change without revision to this Service Bulletin. In case of discrepancy between this list and any other list, the Illustrated Parts Catalog prevails and shall be used to determine the latest part number.

C. Material

No materials required.

D. Publications

No publications required.

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SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

SERVICE BULLETIN:	650−28−001	**ISSUE:**	Rev. 03	**DATED:**	Jan 03/2019

TITLE: SPECIAL CHECK − STANDBY FUEL FEED SYSTEM AND AUXILIARY POWER UNIT (APU) FUEL FEED SYSTEM − ENGINE AND APU ELECTRICAL FUEL PUMP CARTRIDGE/CANISTER FUEL LEAKAGE

In an effort to improve the quality of our technical communications, we are replacing the standard **Service Bulletin Evaluation Form** with an on−line **Service Bulletin Survey** and we are requesting your feedback. Please take a moment to fill out our easy on−line Service Bulletin survey at:

http://csefeedback.aero.bombardier.com

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SERVICE BULLETIN INCORPORATION SHEET − "650−28−001"

BOMBARDIER SUBMISSION	Upon completion of the Service Bulletin, please fill−in, fax to (514) 855−8798 or e−mail to Fracas at fracas.montreal@aero.bombardier.com **If you're reporting Service Bulletin (SB) Incorporations to CAMP, sending this Incorporation Sheet to Bombardier is not mandatory.** If your aircraft is on another tracking system, please contact Bombardier to make arrangements for automated data submission.

Service Bulletin Number	Rev.	* Parts Completed	COMPLIED WITH YES	NO	N/A	Remarks/Reason (Mandatory if N/A)
650−28−001	03		☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	

Actual hours to accomplish Service Bulletin: _____

* NOTES:

1. Where the Service Bulletin is divided into a number of parts (e.g., PARTS A, B, C, D, etc.) which can be carried out separately, indicate only those parts completed at this time.
2. For repetitive checks (usually PART A) only the initial check should be reported unless otherwise stated in the Service Bulletin.
3. When more than one part is carried out at the same time, each part should be reported.
4. Fill in 'Remark/Reason' to explain compliance method when N/A is selected.(E.g. Part not installed, N/A by effectivity, N/A by Part Serial Number, etc.
5. PCW means 'Previously Complied With'.

Aircraft Serial No. _____ Aircraft Reg. No. _____

Airframe Hours: _____ Airframe Landings _____

S.B. Incorporation Date _____ (dd/mm/yy) Service Order No. _____

Facility incorporating S.B. _____

Name _____ Signature _____ Date _____ (dd/mm/yy)

Signature not required if sent by E−Mail