Customer Services

Advisory Wire

REFERENCE NO:	AW700-29-0494, Rev 02	INFORMATION TYPE:	Maintenance Operational
ATA:	29-15	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998) Global 5000 feat. Vision Flight Deck (9386, 9401, 9445 - 9997) Global 6000 (9313, 9381, 9432 -9997)
SUBJECT:	**No.1 Hydraulic Pressure Tube – Aft Equipment Compartment**		

1. REFERENCES:
   - 1.1. Advisory Wire AW700-29-0311 Rev.2 Dated April 19, 2011
   - 1.2. GX Illustrated Parts Catalog (IPC) 29-15-02 Fig. 1, Page 0, item 120
   - 1.3. G5000 Illustrated Parts Catalog (IPC) 29-15-02 Fig. 10, Page 0, item 120
   - 1.4. XRS Illustrated Parts Catalog (IPC) 29-15-02 Fig. 20, Page 0, item 120
   - 1.5. G5000 feat. Vision Flight Deck Illustrated Parts Catalog (IPC) 29-15-02 Fig. 30, Page 0, item 120
   - 1.6. G6000 Illustrated Parts Catalog (IPC) 29-15-02 Fig. 40, Page 0, item 120
   - 1.7. GX Illustrated Parts Catalog (IPC) 29-15-02 Fig. 1, Page 2, item 395
   - 1.8. G5000 Illustrated Parts Catalog (IPC) 29-15-02 Fig. 10, Page 2, item 395
   - 1.9. XRS Illustrated Parts Catalog (IPC) 29-15-02 Fig. 20, Page 2, item 395
   - 1.10. G5000 feat. Vision Flight Deck Illustrated Parts Catalog (IPC) 29-15-02 Fig. 30, Page 2, item 395
   - 1.11. G6000 Illustrated Parts Catalog (IPC) 29-15-02 Fig. 40, Page 2, item 395
   - 1.12. GX & XRS BD-700-1A10 aircraft, SB 700-29-024, Basic Issue April 18/2011
   - 1.13. G5000 BD-700-1A11 aircraft, SB 700-1A11-29-007, Basic Issue April 18/2011
   - 1.14. GX & XRS BD-700-1A10 aircraft, SB 700-29-031, Basic Issue July 15/2016
   - 1.15. G5000 BD-700-1A11 aircraft, SB 700-1A11-29-015, Basic Issue July 15/2016

1.16. G5000 feat. Vision Flight Deck aircraft, SB 700-29-5008, Basic Issue July 15/2016

1.17. G6000 aircraft, SB 700-29-6008, Basic Issue July 15/2016

2. INTRODUCTION:

Revision 2 of this Advisory Wire is to inform Operators that leakage events were reported to Bombardier concerning hydraulic line p/n GD478-1102-11 introduced by the basic issue of Service Bulletins (SB) Ref. 1.14 to 1.17.

3. DESCRIPTION:

Two operators have reported finding hydraulic fluid leaking from a hydraulic tube in the aft equipment compartment. The clamp (Ref. 1.7 to 1.11) part number NAS1715C10KW had worn through the Teflon cushion and had cut into the No 1 Hydraulic pressure tube assembly (Ref. 1.2 to 1.6) part number GD478-1102-7. Other operators have found the tube assembly showing signs of chafing from the clamp.

Following investigation and vibration testing, Service Bulletins (SB) Ref. 1.14 to 1.17 have been released to address the condition described above. The SB introduces a new hydraulic line with a modified shape that allows for an additional bracket and clamp. This new configuration will reduce the impact of vibration on the hydraulic line.

Since the release of the basic issue of SBs Ref 1.14 to 1.17, four (4) events of hydraulic system No.1 leakage were reported on post SB aircraft and originated from the hydraulic line p/n GD478-1102-11. In all cases, the attachment clamps cushions were not reported damaged as previously found on aircraft pre SB. Two of the leakages originated from the swaged fitting, where it connects to the bracket, and two originated from the B Nut connection at the manifold.

The Global aircraft has been designed with titanium hydraulic lines. Although titanium tubing has better weight/operating pressure ratios when compared to CRES material, it also has a higher spring back which generates more loads when the line isn't properly aligned during installation. Pre-load can also happen during the torque application when the b-nut induces a rotation moment on the tube. High pre-load stress on the tube has been identified as a major contributor to premature hydraulic line failure. It is very important to avoid a pre-load condition when incorporating SB Ref 1.14 to 1.17 and installing the hydraulic line p/n GD478-1102-11.

4. ACTION:

Operators should familiarize themselves with the recommended SB (Ref. 1.14 to 1.17) and incorporate the modification at the next opportunity.

Bombardier recommends that maintenance personnel carefully follow the torquing procedures and the torque values given in the SPM 20-22-00-910-801 in order to prevent the risk of a premature hydraulic line failure.

Should you have any queries pertaining to this Advisory Wire, please contact your local Field Service Representative or the Customer Response Center (CRC).