SERVICE BULLETIN

NON-MODIFICATION SERVICE BULLETIN — PNEUMATIC — BLEED AIR — TO APPLY CORRECT TORQUE VALUE TO IMPROPERLY TORQUED BLEED AIR AND STARTER DUCT COUPLINGS

MODEL APPLICATION

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 36-0009

ATA NUMBER

36-11-41

36-11-49

36-11-51

36-11-52

80-13-41

80-13-51

Compliance Category

4

P&W Distribution Code

V2500

August 29/19

Summary

The purpose of this Non-Modification Service Bulletin (NMSB) is to provide instruction to apply correct torque to improperly torqued couplings on the Pneumatic Bleed Air and Starter Ducts. Improperly torqued couplings may lead to pneumatic system leakages.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 Engine Serial Nos. Any Engine listed within Table 1:

Table 1

MSN	Engine SN
7497	V18451
7497	V18461
7584	V18457
7584	V18459
7596	V18446
7596	V18448
7607	V18460
7607	V18469
7617	V18454
7617	V18456
7623	V18463
7623	V18482
7635	V18426
7635	V18430
7656	V18450
7656	V18458
7679	V18466
7679	V18483
7695	V18499
7695	V18500

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: Pneumatic bleed air and starter duct couplings were improperly torqued during installation at ten (10) locations on the engines listed in Table 1 of the Effectivity Data section of this NMSB.
2. Background: A non-conforming tool was discovered during periodic calibration of pneumatic system production tooling. Use of this non-conforming tool has resulted in Couplings torqued to incorrect torque values. Couplings installed using the non-conforming tool may cause pneumatic system leakage.
3. Objective: This NMSB provides instruction to apply the correct torque to improperly torqued bleed air and starter duct couplings installed on the engine serial numbers shown in Table 1 of the Effectivity Data section of this NMSB.
4. Substantiation: The instructions contained in this NMSB return the installation of the affected couplings to the engineering specifications.
5. Effects of Bulletin on:

   Removal/Installation: Not Affected.

   Disassembly/Assembly: Not Affected.

   Cleaning: Not Affected.

   Inspection/Check: Not Affected.

   Repair: Not Affected.

   Testing: Not Affected.
6. Supplemental Information

   None.

Description

Torque the bleed air and starter duct couplings.

Compliance

Category 4 - Recommended.

Accomplish at the first visit of the nacelle or nacelle component to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action for the nacelle or nacelle component.

Approval Data

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model listed.

The Aircraft Type Certificate (TC) holder has been informed of this procedure.

Manpower

1. In Service

   To Gain/Close access ..... 0.5 hours.

   To Torque Couplings ..... 1.0 hours.

Total Man Hours ..... 1.5 hours.

2. At Overhaul

..... Not Applicable.

Weight and Balance

1. Weight Change

   None.

2. Moment Arm

   No Effect.

3. Datum

   Engine Front Mount Centerline (Power Plant Station (PPS) 100)

Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

Software Accomplishment Summary

Not Applicable.

References

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. V2500 Standard Practices/Processes Manual (SPM), P&W Ref. PN 2A4414, Chapter/Section 70-41-00.
2. Airbus A319/A320/A321 Aircraft Illustrated Parts Catalog, Chapter/Section 36-11-41, 36-11-49, 36-11-51, 36-11- 52, 80-13-41 and 80-13-51.
3. Airbus A319/A320/A321 Aircraft Maintenance Manual, Chapter/Section 71-13-00 and 78-32-00.

Other Publications Affected

None.

Interchangeability of Parts

Not Applicable.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. There are no parts required to accomplish this Non-Modification Service Bulletin.

Industry Support Program

Not Applicable.

The material data that follows is for each engine.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
	2	*	COUPLING	6299258-0400 (36-11-41-80A-020)	(4)(X)
	1	*	COUPLING	6299258-0350 (36-11-49-80A-090)	(4)(X)
	2	*	COUPLING	6299258-0400 (36-11-51-80A-010)	(4)(X)
	2	*	COUPLING	6299258-0400 (36-11-52-80A-020)	(4)(X)
	1	*	COUPLING	6299258-0400 (80-13-41-80A-010)	(4)(X)
	2	*	COUPLING	6299258-0400 (80-13-51-80A-010)	(4)(X)

Instructions/Disposition Code Statements:

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact Collins Aerospace Spares (sparesales@utas.utc.com) for firm quotations.

(4) Do the maintenance actions as specified in the Accomplishment Instructions.

Spare Parts Availability

(X) Refer to Reference 2, Aircraft Illustrated Parts Catalog, for applicable part replacement.

Vendor Services or Special Components/Materials

Not Applicable.

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

1. Pre-requisite Instructions

   WARNING: MAKE SURE THAT THE ENGINE IS SAFE FOR MAINTENANCE. THIS WILL PREVENT INJURIES TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT.

   A. Open the fan cowl doors as specified in Reference 3, Aircraft Maintenance Manual, TASK 71-13-00-010-010.

   B. Open the left thrust reverser half as specified in Reference 3, Aircraft Maintenance Manual, TASK 78-32-00-010-010.

2. Rework Instructions

   NOTE: It is not necessary to disassemble any components.

   A. Perform the Coupling nut, PN 6299258-0400 and 6299258-0350, re-torque procedure at seven (7) locations. Refer to Figure 1 Sheet 1.

      NOTE: Loosen and torque one coupling at a time.

      (1) Loosen the nut on the couplings (1) and (2).

      (2) Torque the nut on the couplings (1) and (2) to 75 – 85 lbf-in (8.47 – 9.60 N.m) as specified in Reference 1, V2500 Standard Practices Manual, P&W Ref. PN 2A4414, Chapter 70-41-00.

      (3) Hit the coupling lightly in several places around the perimeter of the clamp with a nonmetallic hammer to equally apply the band or segment tension.

      (4) Do Steps 2.A.(2) and 2.A.(3) again two (2) more times.

      (5) Final torque the nut on the couplings (1) or (2) to 75 – 85 lbf-in (8.47 – 9.60 N.m) as specified in Reference 1, V2500 Standard Practices Manual (SPM), P&W Ref. PN 2A4414, Chapter 70-41-00.

   B. Perform the Coupling nut, PN 6299258-0400 re-torque procedure at two (2) locations. Refer to Figure 1 Sheet 2.

      NOTE: Loosen and torque one coupling at a time.

      (1) On the pneumatic starter control valve, loosen the nut on the couplings (1).

      (2) Torque the nut on the couplings (1) to 75 – 85 lbf-in (8.47 – 9.60 N.m) as specified in Reference 1, V2500 Standard Practices Manual, P&W Ref. PN 2A4414, Chapter 70-41-00.

      (3) Hit the coupling lightly in several places around the perimeter of the clamp with a nonmetallic hammer to equally apply the band or segment tension.

      (4) Do Steps 2.B.(2) and 2.B.(3) again two (2) more times.

      (5) Final torque the nut on the couplings (1) to 75 – 85 lbf-in (8.47 – 9.60 N.m) as specified in Reference 1, V2500 Standard Practices Manual, P&W Ref. PN 2A4414, Chapter 70-41-00.

   C. Perform the Coupling nut, PN 6299258-0400 re-torque procedure at one (1) location. Refer to Figure 1 Sheet 3.

      (1) On the pneumatic starter, loosen the nut on the coupling (1).

(2) Torque the nut on the coupling (1) to 75 – 85 lbf-in (8.47 – 9.60 N.m) as specified in Reference 1, V2500 Standard Practices Manual, P&W Ref. PN 2A4414, Chapter 70-41-00.

(3) Hit the coupling lightly in several places around the perimeter of the clamp with a nonmetallic hammer to equally apply the band or segment tension.

(4) Do Steps 2.C.(2) and 2.C.(3) again two (2) more times.

(5) Final torque the nut on the couplings (1) to 75 – 85 lbf-in (8.47 – 9.60 N.m) as specified in Reference 1, V2500 Standard Practices Manual, P&W Ref. PN 2A4414, Chapter 70-41-00.

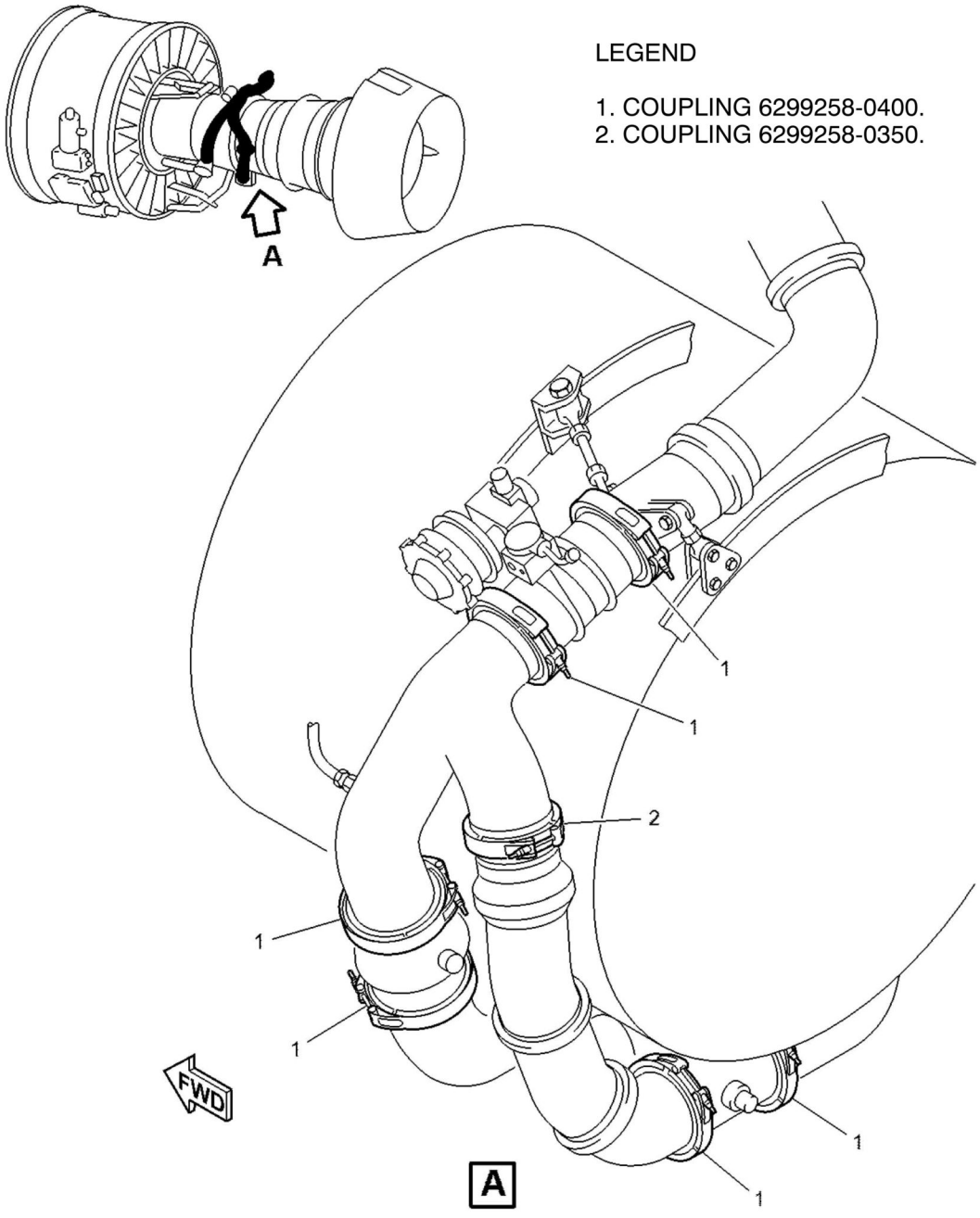
3. Post-requisite Instructions

A. Close the left thrust reverser half as specified in Reference 3, Aircraft Maintenance Manual, TASK 78-32-00-410-010.

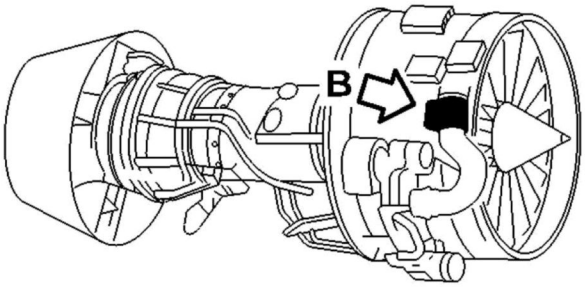
B. Close the fan cowl doors as specified in Reference 3, Aircraft Maintenance Manual, TASK 71-13-00-410-010.

4. Recording Instructions

A. A record of accomplishment is required.

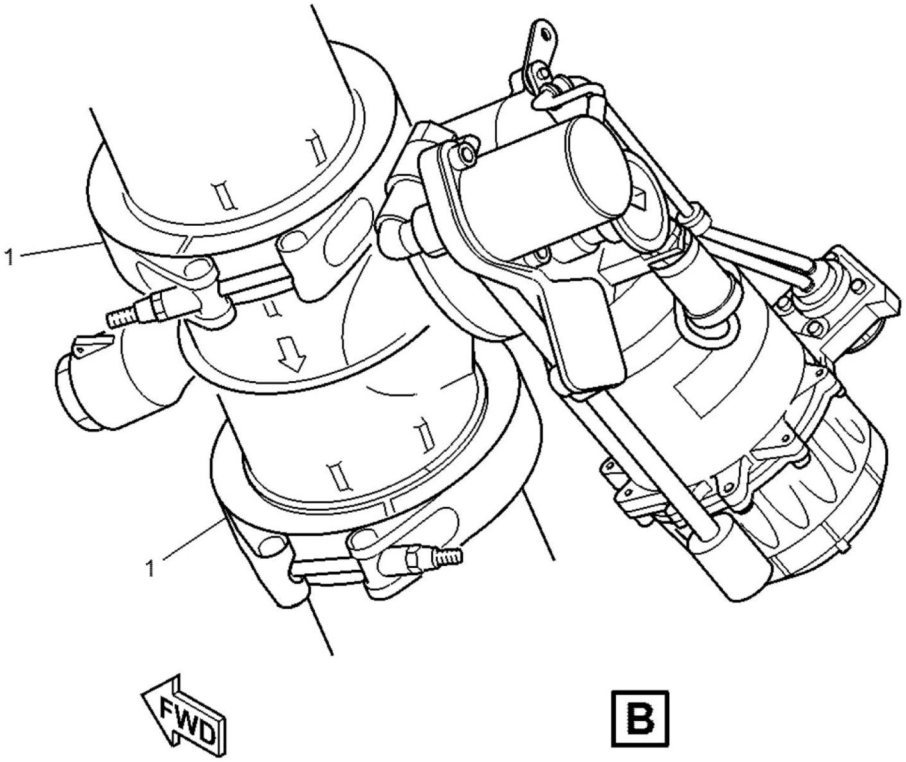


LOCATION OF THE COUPLINGS
36-11-41, 36-11-49-, 36-11-51 and 36-11-52
FIGURE 1, SHEET 1



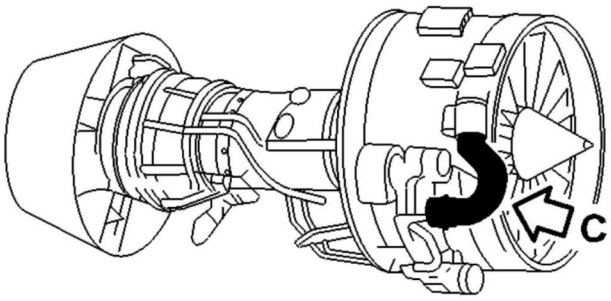
LEGEND

1. COUPLING 6299258-0400.



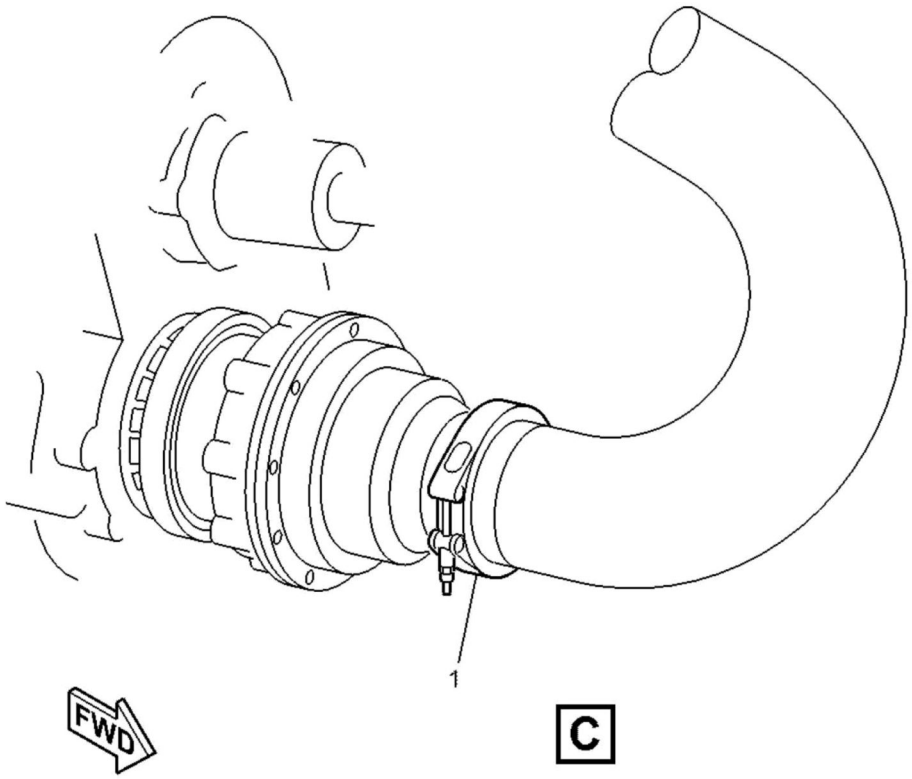
B529094

LOCATION OF THE COUPLINGS
80-13-51
FIGURE 1, SHEET 2



LEGEND

1. COUPLING 6299258-0400.



B529095

LOCATION OF THE COUPLINGS
80-13-41
FIGURE 1, SHEET 3

Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC18VN813	PJ/RCM

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, the following Technical Publications cross reference table is provided.

Technical Publications Cross Reference Table

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
ENGINE MANUAL — A1, A5	All	E-V2500-1IA	2A4407
CMM-EHC — A1, A5	All	EHC-V2500-1IA	2A4409
CMM-FN — A1, A5	All	FN-V2500-1IA	2A4410
CMM-MMC — A1, A5	All	MECH-V2500-1IA	2A4411
CMM-THD — A1, A5	All	THD-V2500-1IA	2A4412
TLM — A1, A5	All	T-V2500-1IA	2A4408
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
CMM-EHC — D5	All	EHC-V2500-31A	2A4418
CMM-FN — D5	All	FN-V2500-3IA	2A4419
CMM-MMC — D5	All	MECH-V2500-3IA	2A4420
CMM-THD — D5	All	THD-V2500-3IA	2A4423
TLM — D5	All	T-V2500-3IA	2A4417
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
EIPC — A5	V2522/V2524/V2527M-AQ02	S-V2500-6IA	2A4428
	V2522/V2524/V2527M-AQ03	S-V2500-6IB	
	V2522/V2524/V2527M-SQ02	S-V2500-6SA	
	V2522/V2524/V2527M-SQ03	S-V2500-6SB	
	V2522/V2524/V2527M-SQ04	S-V2500-6NA	
	V2522/V2524/V2527M-SQ05	S-V2500-6NB	
	V2527/V2527E-AQ02	S-V2500-7IA	
	V2527/V2527E-AQ03	S-V2500-7IB	
	V2527/V2527E-SQ02	S-V2500-7SA	
	V2527/V2527E-SQ03	S-V2500-7SB	
	V2527/V2527E-SQ04	S-V2500-7NA	
	V2527/V2527E-SQ05	S-V2500-7NB	
	V2530-AQ02	S-V2500-2IA	
	V2530-AQ03	S-V2500-2IB	
	V2530-SQ02	S-V2500-2SA	
	V2530-SQ03	S-V2500-2SB	
	V2530-SQ04	S-V2500-2NA	
	V2530-SQ05	S-V2500-2NB	
	V2533-AQ02	S-V2500-5IA	
	V2533-AQ03	S-V2500-5IB	
	V2533-SQ02	S-V2500-5SA	
	V2533-SQ03	S-V2500-5SB	
	V2533-SQ04	S-V2500-5NA	
	V2533-SQ05	S-V2500-5NB	
EIPC — D5	V2525/V2528-AQ02	S-V2500-3IA	2A4426
	V2525/V2528-AQ03	S-V2500-3IB	
	V2525/V2528-AQ04	S-V2500-3IC	