

Revisions to this document are noted
by a stripe in the left-hand margin

2012FA06C, Rev. A
October, 2012
Product Code(s): 63
Page 1 of 4

SUBJECT: C5 Clutch Compressive Fatigue Inspection

MODELS AFFECTED: 1000 and 2000 Series Transmissions

VOCATIONS AFFECTED: Non SEM/LRTP Transit Bus

Introduction:

Allison Transmission, Inc. has identified an issue which could limit the life of the C5 clutch in 2100 Series Transit Bus vocations. A higher C5 pressure strategy was implemented with the 2010 Uprate Controls which, over time, may cause friction material loss on the C5 friction plate. Field Action 2012FA06C is an inspection process to define remaining clutch life by comparing the friction clutch plates to the duty cycle of the C5 clutch.

This Field Action vehicle population will be determined by the Allison Transmission, Inc. Service Manager for each region. This Field Action will expire on May 15, 2013.

Service Procedure:

Collect all necessary vehicle information needed to complete a standard warranty claim: Vehicle Identification Number (VIN), Serial Number (S/N), bus number, correct mileage, etc. Connect Allison DOC® to the vehicle being inspected and collect static data. Create a file for each bus inspected to save all the necessary claim information and the Static Data File. The Static Data File must be attached to each inspection warranty claim for it to be approved.



NOTE: Do not load the updated calibration until the static data has been saved.

Remove the transmission from vehicle. Disassemble the transmission using the instructions provided in the 1000/2000 Product Families 2010 Uprate Service Manual (SM5818EN) to inspect the C5 friction clutch plates. It is necessary to fully disassemble the transmission to allow for proper selective reaction plate selection in the C5 clutch.

Inspect the C5 clutch friction plates. If compressive fatigue is present (refer to [Figure 1](#)) and C5 clutch friction plate debris has contaminated the transmission, then continue the disassembly. Rebuild the transmission, replace the torque converter and flush the transmission cooler.



Figure 1.

If the C5 clutch friction plates look acceptable, then tie the plates together and mark with the serial number and identification so the Static Data File can be traced to these C5 clutch friction plates. A Return Materials Authorization (RMA) will need to be created and the C5 clutch friction plates need to be sent to Allison Transmission Global Headquarters (shipping information included on the (RMA) template below).

Install new C5 clutch friction plates, measure for proper selectable C5 reaction plate and reassemble the unit per 1000/2000 Product Families 2010 Uprate Service Manual (SM5818EN). Reinstall the transmission in the vehicle. Using Allison TCM Reflash (Production Calibration Configuration System (PCCS)), load an updated calibration into the Transmission Control Module (TCM) per Field Action 2012FA06B. If performing both 2012FA06B and 2012FA06C at the same time, two separate claims are required.

Claim Submittal Information:

Reimbursement of expenses should be requested via a Claim Type 4 with a Primary Failed Part (PFP) of 70 if no damage to the C5 is observed or PFP of 29537393 for a C5 clutch friction plate failure.

Below is the claim submittal information for the inspection if C5 clutch friction plates DO NOT show signs of compressive fatigue:

Claim Type	4
Special Activity Indicator	2012FA06C
Primary Failed Part	70
Complaint Code	AT02
Failure Code	CC03
Attachments	Static Data File must be attached to the warranty claim for approval

Product Code 63		
Labor Operation Code	Labor Hours	Labor Operation
94000065	6.5	R&R Transit Bus 1K/2K
00095211	4.0	Partial Trans Overhaul
00095205	1.5	Dyno Test

Table 1. Parts Covered to Perform C5 Inspection

Qty	Part Number	Part Description*
1	29536478	Gasket, Main Housing, Separator Plate
1	29536941	Gasket, Rear Cover
6	29537393	C5 Clutch Friction Plate
* May require C5 Clutch Reaction, Selective (Quantity 1)		

Below is the claim submittal information for the inspection if C5 clutch friction plates DO show signs of compressive fatigue and debris inside the transmission:

Claim Type	4
Special Activity Indicator	2012FA06C
Primary Failed Part	29537393
Complaint Code	AT02
Failure Code	CC03

Product Code 63		
Labor Operation Code	Labor Hours	Labor Operation
94000065	6.5	R&R Transit Bus 1K/2K
00095200	8.4	Transmission Overhaul
00094006	0.5	Back Flush/Clean Cooler
00095205	1.5	Dyno Test

Table 2. Parts Covered to Overhaul if a C5 Failure Occurs

Qty	Part Number	Part Description*
1	29547606	Seal & Gasket Kit
6	29537393	C5 Clutch Friction Plate
1	29542824	Filter, Suction, Deep Pan
1	29539579	Filter, Control Main
1	Various	Converter Assembly
* Other applicable parts as necessary, such as C5 Clutch Reaction, Selective (Quantity 1)		

Net Items:

If travel expense is required to complete this Field Action, it must be justified on the warranty claim. Each warranty claim can include up to 21 liters of TES 295 transmission fluid. The freight invoice for each RMA should be attached to each claim for approval. Any additional parts, labor or travel deemed necessary to complete this Field Action must be completely described in detail in the claim narrative; if not, they will be deducted from the claim.

RETURN MATERIAL AUTHORIZATION

ALLISON TRANSMISSION DIVISION

REFERENCE NO. 2012FA06C

DATE: _____

SHIPPER: _____

SHIP TO: Allison Transmission, Inc.

4700 W. 10th Street

Dock 33, Stop 70

Indianapolis, IN 46222

CONTACT: _____

PHONE #: _____

Attn: Wais Mardanzi

DOES THIS RETURN CONTAIN ANY ITAR CONTROLLED MATERIAL OR INFORMATION?

☐ YES ☒ NO

If yes, contact the Allison Transmission Export Compliance Administrator for shipping authorization (317-242-3197)

QUANTITY	PART NUMBER	DESCRIPTION and TRANSMISSION MODEL, TRANSMISSION ASSEMBLY NUMBER, and TRANSMISSION SERIAL NUMBER
6	29537393	C5 Clutch Friction Plate

REASON FOR RETURN: 2012FA06C

Awaare Claim Number

VIN

Serial Number

RO Number

Bus Number

Note: Static Data File must be attached to the claim for approval

COMMENTS:

**NOTE: ALL UNITS MUST BE CLEANED BEFORE THEY ARE SENT TO ATD. ALL EXPOSED
IRON PARTS MUST BE LIGHTLY OILED OR HAVE A PRESERVATIVE APPLIED**

IMPORTANT: A COPY OF THIS COMPLETED FORM MUST BE INSIDE AND OUTSIDE OF THE SHIPPING CONTAINER. AUTHORIZATION AND DOCUMENTATION WILL BE SHIPPED BACK TO THE SENDER FREIGHT COLLECT. ANY SUPPORT DOCUMENTATION (PRIOR HISTORY, ETC.) SHOULD BE ATTACHED TO SHIPMENT.

PLEASE DISTRIBUTE THIS FORM AS FOLLOWS:

Fax or E-Mail to:

_____	Fax# _____	E-Mail _____
_____	Fax# _____	E-Mail _____
_____	Fax# _____	E-Mail _____
_____	Fax# _____	E-Mail _____