



Subject: Fault Code 27 FMI 7 and/or 64 FMI 7 Set Active After ECA Installation

Document Number: TAIB-0996

Date: January 31, 2022

Issue Description:

Customers may experience Fault Code 27 FMI 7 and/or Fault Code 64 FMI 7 setting Active immediately after Electronic Clutch Actuator (ECA) is reinstalled or replaced.

During ECA removal the Clutch Release Yoke Lower Cross-shaft may partially pull out of the release yoke. When the ECA is reinstalled or replaced the Lower Cross-shaft bottoms out in the ECA internal splined drive shaft resulting in a binding condition and restricting ECA movement.

Containment/Corrective Action:

If the ECA was recently reinstalled or replaced and Fault Code 27 FMI 7 and/or Fault Code 64 FMI 7 is Active, perform the Field Strategy outlined below to check for a binding condition between Clutch Release Yoke Lower Cross-shaft and ECA.

Affected Models/Population:

- UltraShift PLUS
- Fuller Advantage Automated
- SmartAdvantage Automated

Field Strategy:

- **1.** Set parking brake and chock wheels.
- 2. Key off.
- **3.** Loosen clutch housing inspection cover retaining bolt.
- **4.** Using a suitable pry bar, move Clutch Release Yoke toward clutch release bearing, up and down, review video in link: <u>Spline Shaft Check for Binding</u>
 - a. If the Clutch Release Yoke does not move freely up and down, go to **Step 5**.

b. If the Clutch Release Yoke moves freely up and down, as indicated in video, and Fault Code 27 FMI 7 and/or 64/7 is Active, go to troubleshooting guide and complete Fault Code Isolation Procedure.



- 5. Remove ECA
- 6. Remove pinch bolt and Lower Cross-shaft.



7. Clean splines on Lower Cross-shaft.

8. Re-install Lower Cross-shaft into Clutch Release Yoke and ensure cross-shaft is fully seated into Clutch Release Yoke.



- 9. Install pinch bolt and torque to 35-45 lb-ft (47-61 Nm).
- **10.** Install ECA.
- **11.** Close and secure clutch housing inspection cover and torque to 21-27 lb-in (2.4-3.1 Nm).
- **12.** Key on with engine off.
- **13.**Connect ServiceRanger.
- 14.Go To Fault Codes:
 - a. If Fault Code 27 FMI 7 and/or Fault Code Fault Code 64 FMI 7 is Inactive, clear fault codes, disconnect ServiceRanger, process complete.
 - b. If Fault Code 27 FMI 7 and/or Fault Code Fault Code 64 FMI 7 is Active, go to troubleshooting guide and complete Fault Code Isolation Procedure.

Warranty Information:

Information only

The material contained in this bulletin is product improvement information. Eaton Corporation is not committed to, or liable for, canvassing existing products. FSUD: 2022-FSUD-4357