



Technical Service Bulletin

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Unique Flywheel or Flywheel Housing Required for Use with an Eaton Endurant™ Transmission: Potential Engine Damage or Clutch Will Not Calibrate Error Message

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Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Contents

Product Affected

- X15 CM2350 X114B
- X15 CM2450 X124B
- X15 CM2450 X134B

Issue

Symptom:

- After a repair or engine replacement:
 - The clutch calibration process on the Eaton Endurant™ Transmission may not calibrate and log an Eaton fault code of 250/09.
 - Possible crankshaft or thrust bearing damage occurs shortly after repair.

Root Cause:

- Engine flywheel or flywheel housing is **not** compatible with the Eaton Endurant™ transmission.

Resolution

- The Eaton Endurant™ transmission requires a specific flywheel and/or flywheel housing to maintain the correct distance for the clutch to calibrate and actuate.

Options to be used with an ISO flywheel housing and longer transmission input shaft are displayed in Table 1 below. The flywheel housing has a depth of 166 mm [6.5 in] from the rear face of the cylinder block to the transmission mounting face (see Figures 1 and 2 below).

Table 1, Options for ISO Flywheels Housing

| Option | Component | Part Number |
|---------|------------------|-------------|
| FH11182 | Flywheel Housing | 3693141 |

| Table 1, Options for ISO Flywheels Housing | | |
|---|------------------|-------------|
| Option | Component | Part Number |
| FH11184, FH11189 | Flywheel Housing | 3695287 |
| FW1249 | Flywheel | 3693466 |
| <p>Option used with an SAE flywheel housing and shorter transmission input shaft are displayed in Table 2 below. See Figure 2 below.</p> | | |
| Table 2, Options for SAE Flywheel Housing | | |
| Option | Component | Part Number |
| FW1259 | Flywheel | 5575105 |
| <p>Part Identification</p> <p>Figure 1 below shows flywheel housing depth dimension of 165.9 mm [6.5 in]for flywheel housing, Part Number 3693141 or 3695287. Other flywheel housings typically are 155 mm [6.1 in] in the depth dimension .</p> | | |

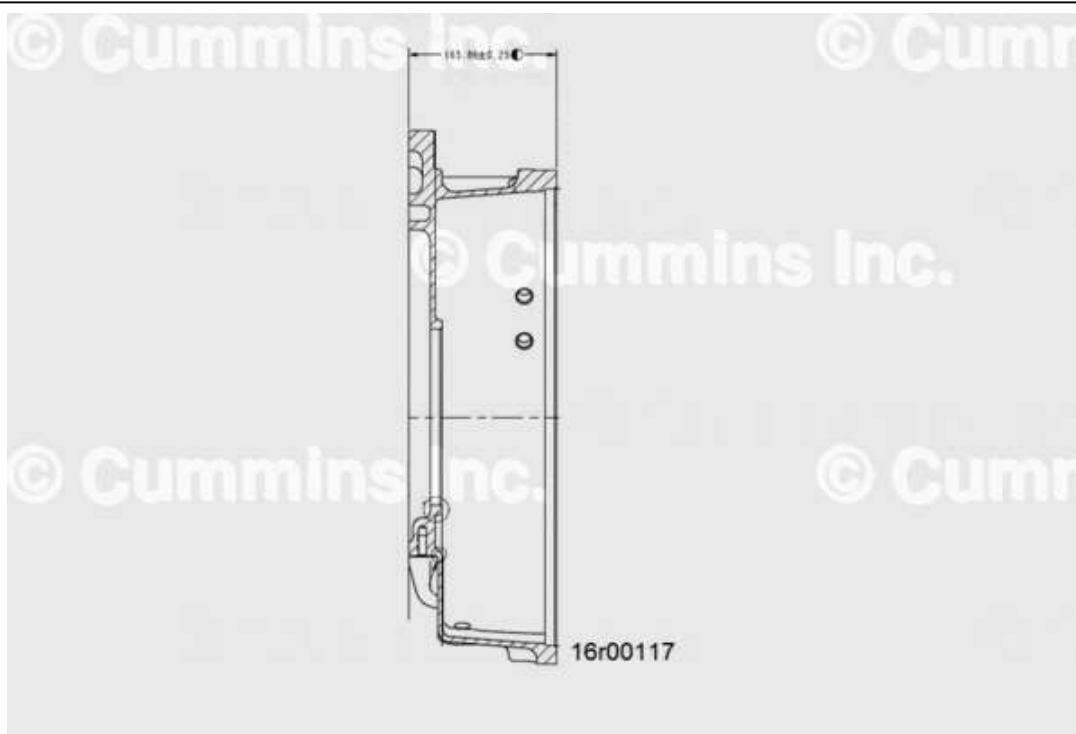


Figure 1, Flywheel Housing Depth Dimension for Flywheel Housing, Part Number 3693141 or 3695287.

Figure 2 below shows Eaton Endurant™ transmission input shaft measurement.

- The shorter input shaft has a dimension from the transmission mounting flange to the tip of the input shaft of 95.8 mm [3.8 in].
- The longer input shaft has a dimension from the transmission mounting flange to the tip of the input shaft of 106.9 mm [4.2 in].



Figure 2, Eaton Endurant™ Transmission Input Shaft Measurement.

Document History

| Date | Details |
|-----------|---|
| 2019-9-10 | Module Created |
| 2020-7-9 | Added X15 CM2450 X124B to Product Affected section. |
| 2021-5-14 | Updated document title. Added X15 CM2450 X134B. Updated Table 1 and 2. Added Part Number 3693141. |
| 2021-6-7 | Part number 5557105 corrected to 5575105 in Table 2. |

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