

**FORD:**

2004-2008 F-150

**LINCOLN:**

2006-2008 Mark LT

This article supersedes TSB **06-12-3** to update the vehicle model years.

**ISSUE**

Some 2004-2008 F-150 and 2006-2008 Mark LT vehicles (excluding F-150 Heritage) may exhibit a vibration, felt in the floorpan and/or steering wheel when driven at highway speeds

**ACTION**

Follow the Service Procedure steps to correct the condition.

**SERVICE PROCEDURE**

Refer to the Diagnostic Overview (Figure 1). Based on the customer's description of the concern, find the appropriate Operating Condition, Probable Cause and Repair Action.

**NOTE**

IT IS CRITICAL TO IDENTIFY SPECIFIC VEHICLE SPEEDS AND OPERATING CONDITIONS WHEN THE VIBRATION OR NIBBLE IS OCCURRING, TO PROPERLY DIAGNOSE AND REPAIR THE ISSUE. TIRE AND DRIVELINE VIBRATION CAN FEEL SIMILAR. USE OF AN ELECTRONIC VIBRATION ANALYZER (EVA) OR VETRONIX VIBRATION ANALYZER IS RECOMMENDED TO CORRECTLY IDENTIFY VIBRATION SOURCES (ORDERS) AND FREQUENCY (HZ).

**NOTE:** The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

<b>DIAGNOSTIC OVERVIEW</b>			
<b>CUSTOMER CONCERN AND VEHICLE SPEED</b>	<b>OPERATING CONDITION AND EVA/VETRONIX READING</b>	<b>PROBABLE CAUSE</b>	<b>REPAIR ACTION(S)</b>
VEHICLE AND/OR STEERING WHEEL VIBRATION.  40-55 MPH (70-90 KM/H)	DURING ALL CONDITIONS: ACCEL/DECEL, COAST/ NEUTRAL, 4 <sup>TH</sup> OR 3 <sup>RD</sup> GEAR (O/D OFF).  NON-TORQUE SENSITIVE.  1 <sup>ST</sup> ORDER DRIVELINE (25-35 HZ)	DRIVELINE IMBALANCE DUE TO: 1. DRIVESHAFT RUNOUT 2. DRIVESHAFT IMBALANCE 3. U-JOINT DAMAGED (CUPS LOOSE OR PUSHED OUT) 4. NON-SYMMETRIC CENTER BEARING MOUNT (2-PC D/S ONLY)	FOLLOW 1 <sup>ST</sup> ORDER DRIVELINE VIBRATION DIAGNOSTIC FLOW CHART (FIGURES 2 AND 3)
	ACCEL OR DECEL TORQUE SENSITIVE. 1 <sup>ST</sup> ORDER DRIVELINE (25-35 HZ)	HIGH REAR AXLE GEAR SET PITCH LINE RUNOUT (PLRO)	FOLLOW 1 <sup>ST</sup> ORDER DRIVELINE VIBRATION DIAGNOSTIC FLOW CHART FIGURES 2 AND 3
VEHICLE AND/OR STEERING WHEEL VIBRATION.  50-65 MPH (80-105 KM/H)	DURING ALL CONDITIONS: ACCEL/DECEL, COAST/ NEUTRAL, 4 <sup>TH</sup> OR 3 <sup>RD</sup> GEAR (O/D OFF).  NON-TORQUE SENSITIVE.  1 <sup>ST</sup> ORDER TIRE (9-11 HZ)	TIRE-INDUCED VIBRATION INPUTS DUE TO IMBALANCE AND/OR ROAD FORCE.  NOTE: TIRE AND DRIVELINE VIBRATION MAY FEEL SIMILAR.	REFER TO TSB ARTICLE 07-10-8
	SMOOTH ROAD-INDUCED VIBRATION (VARIES DEPENDING ON SURFACE).  NOT ORDER DEPENDENT (9-11 HZ).	VEHICLE SENSITIVITY AT 10 HZ RELATED TO VEHICLE TORSION MODE.	REFER TO TSB ARTICLE 07-10-8
	4 <sup>TH</sup> GEAR W/ TORQUE CONVERTER LOCKED AND ABSENT WHEN UNLOCKED.  1 <sup>ST</sup> ORDER DRIVELINE (35-45 HZ)	TRANSMISSION IMBALANCE AND/OR RUNOUT.	FOLLOW 1 <sup>ST</sup> ORDER DRIVELINE VIBRATION DIAGNOSTIC FLOW CHART (FIGURES 2 AND 3)
STEERING WHEEL NIBBLE/SHIMMY.  65-75 MPH (105-120 KM/H)	DURING ALL CONDITIONS ON SMOOTH ROADS.  1 <sup>ST</sup> ORDER TIRE (12-14 HZ)	1. TIRE/WHEEL IMBALANCE AND/OR ROAD FORCE. 2. OLDER STEERING GEAR.	REFER TO TSB ARTICLE 07-10-8
TAKE-OFF SHUTTER OR HIGH SPEED COAST DOWN VIBRATION	ACCELERATING FROM A STOP (10-25 MPH (16-40 KM/H)) OR COASTDOWN (ABOVE 75 MPH (120 KM/H))	DRIVELINE ANGLES	ADJUST REAR AXLE PINION ANGLE - REFER TO TSB 06-19-16

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Figure 1 - Article 07-10-9

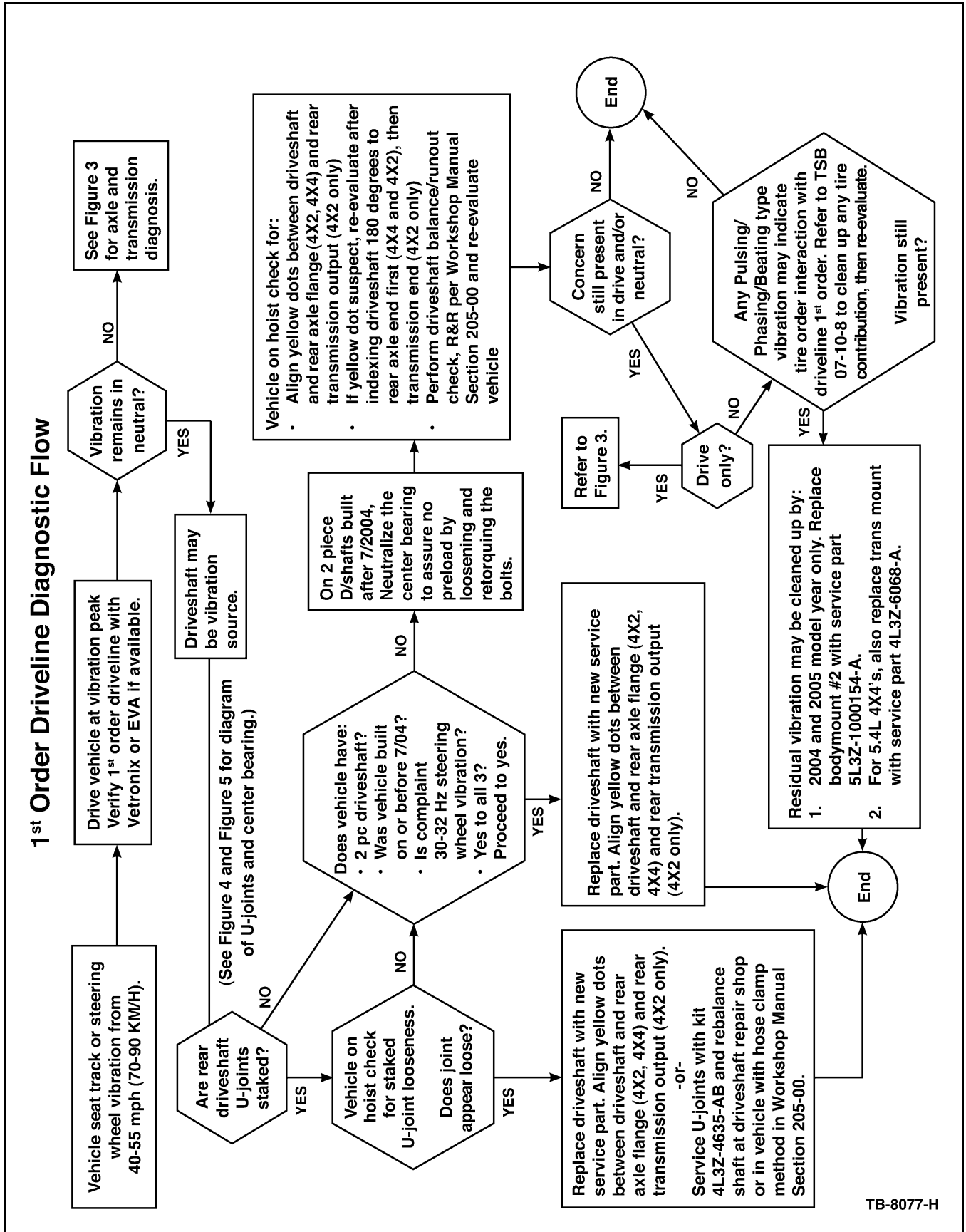
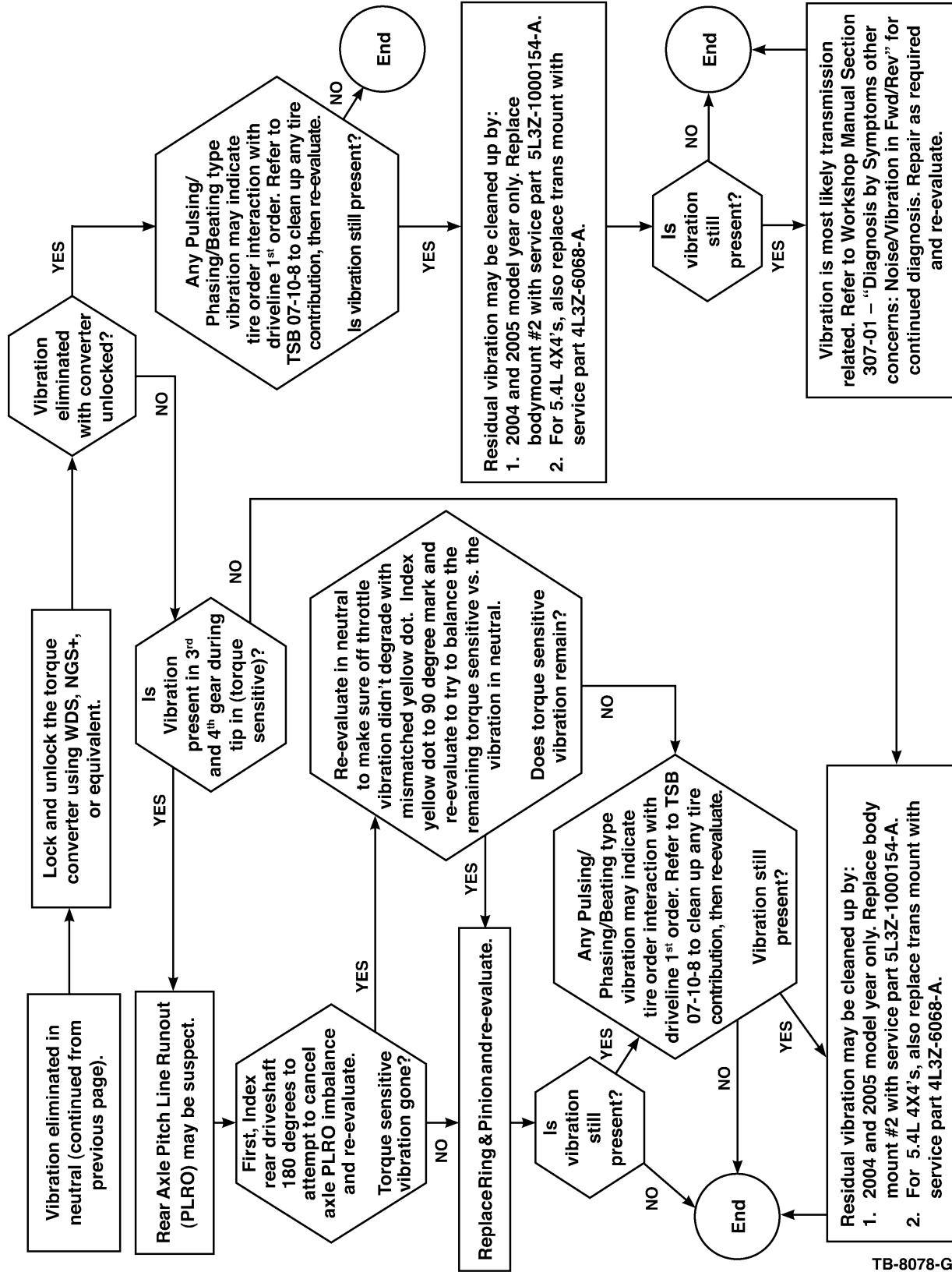


Figure 2 - Article 07-10-9

# 1<sup>st</sup> Order Driveline Diagnostic Flow



TB-8078-G

Figure 3 - Article 07-10-9

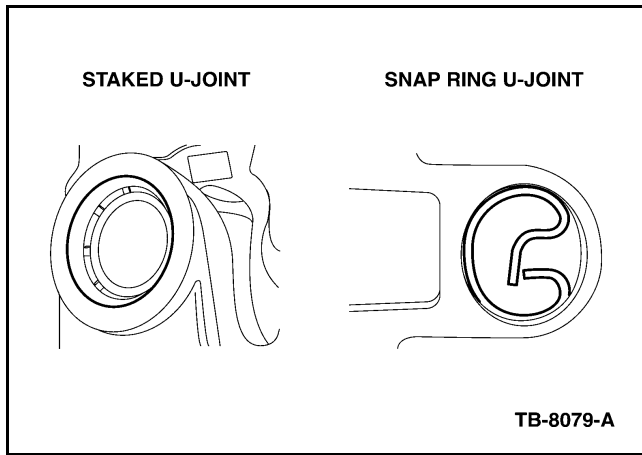


Figure 4 - Article 07-10-9

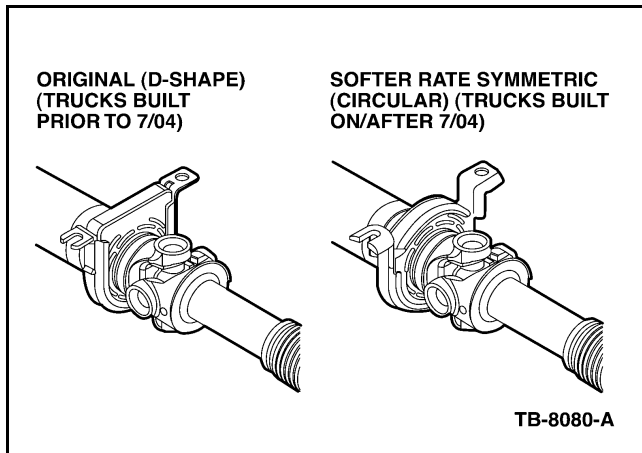


Figure 5 - Article 07-10-9

PART NUMBER	PART NAME
5L3Z-1000154-A	Body Mount Kit
4L3Z-6068-A	Trans Mount
4L3Z-4635-AB	U-Joint Repair Kit
-4602- or -4R602-	Driveshaft (order per part catalog)
-4209-	Ring & Pinion (order per part catalog)
-7000-	Transmission (order per part catalog)

**OTHER APPLICABLE ARTICLES:** 07-10-08,  
06-19-16

**WARRANTY STATUS:** Eligible Under Provisions Of  
New Vehicle Limited  
Warranty Coverage  
**IMPORTANT:** Warranty  
coverage limits/policies are  
not altered by a TSB.  
Warranty coverage limits  
are determined by the  
identified causal part.

OPERATION	DESCRIPTION	TIME
MT071009	Claim Labor As Actual Time Or Use SLTS Operation If Available	Actual Time

**DEALER CODING**

BASIC PART NO.	CONDITION CODE
4602	42