

FORD:

2005 Excursion, Explorer Sport Trac
2005-2008 Escape, Expedition, Explorer,
F-150, F-Super Duty, Ranger
2006-2008 F-53 Motorhome Chassis
2007-2008 Explorer Sport Trac

LINCOLN:

2005-2008 Navigator
2006-2008 Mark LT

MERCURY:

2005-2008 Mariner, Mountaineer

This article supersedes TSBs **07-11-3**, **07-10-8**, and **07-4-5** to update the Part List and Service procedure.

ISSUE

Various Ford, Mercury and Lincoln vehicles may exhibit a vibration / steering wheel nibble above 50 MPH (80 Km/h) which may be associated to a wheel and tire vibration.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

The following revisions have been made. The road test has been simplified to include 15 minutes of driving rather than a 20 mile test drive. The requirement to bring an assistant along on the road test has been eliminated. Recordings should be made using the vibration analyzer and then review recordings following the test drive. The step to inspect the Integrated Wheel Ends (IWE) has also been eliminated.

1. Long term temporary flat spotting can develop when a vehicle is stored without driving. Some initial tire and wheel vibration issues (such as flat spotting) will correct themselves after the tires have been in service for 200 miles (320 km). Confirm vehicle tires have been in service a minimum of 200 miles (320 km) to remove long term temporary flat spotting. Do not continue with this procedure if tires do not meet this requirement.
2. Refer to Workshop Manual (WSM), Section 100-04 to determine if a wheel and tire speed (9-14.5 HZ) vibration is present.

- a. If the vibration is wheel and tire speed proceed Step 3.
- b. If not, follow the diagnostics provided in the WSM, Section 100-04.

NOTE

THE VEHICLE SHOULD BE DRIVEN 15 MINUTES TO REMOVE TEMPORARY FLAT SPOTTING. SHORTER TEST DRIVES WILL RESULT IN INACCURATE RUN OUT OR ROAD FORCE® READINGS. IF THE VIBRATION GOES AWAY DURING THE TEST DRIVE, THE CONCERN IS DUE TO TEMPORARY TIRE FLAT SPOTTING WHICH IS A NORMAL TIRE CONDITION. NO FURTHER DIAGNOSIS OR REPAIRS SHOULD BE PERFORMED.

3. If tire and wheel vibration persists after the 15 minute road test, then complete wheel and tire radial run-out / Road Force® component test in the WSM, Section 204-04 to match mount and/or balance tire and wheel assemblies.

NOTE

THE MATCH MOUNTING PROCEDURE IS MORE EFFECTIVE WHEN USING HUNTER ROAD FORCE® MEASUREMENT EQUIPMENT. THERE IS A WEBSITE AVAILABLE (WWW.GSP9700.COM) TO LOCATE THE NEAREST FACILITY THAT HAS THIS TYPE OF EQUIPMENT. ONLY USE A STANDARD BALANCER AND MANUALLY CHECK RUN OUT WHEN ABSOLUTELY NECESSARY.

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.

TSB 08-24-2 (Continued)

NOTE

WHEEL-TO-HUB OPTIMIZATION WHEEL-TO-HUB OPTIMIZATION IS IMPORTANT. CLEARANCE BETWEEN THE WHEEL AND HUB CAN BE USED TO OFFSET OR NEUTRALIZE THE ROAD FORCE® OR RUN-OUT OF THE WHEEL AND TIRE ASSEMBLY. FOR EVERY 0.001" (0.0254 MM) OF WHEEL-TO-HUB CLEARANCE, THE ROAD FORCE® CAN BE AFFECTED BETWEEN 1-3 LBS (0.45- 1.36 Kg). DEPENDING ON THE TIRE STIFFNESS.

4. When installing tire and wheel assemblies follow WSM, Section 204-04, Wheel-to-Hub Optimization procedure. There are unique procedures for single rear wheel vehicles, dual rear wheels vehicles, and vehicles with conical shaped lug nuts.

NOTE

THE SPARE TIRE SHOULD NOT BE USED AS A REPLACEMENT TIRE.

F-150 and MARK LT ONLY - If the vibration still persists continue to Step 5.

5. Perform the following based on remaining symptom:
 - a. If vibration still exists at 50-60 MPH (80-97 Km/h) (9-11 Hz), condition may be due to vehicle sensitivity or road inputs. Obtain Frame Damper Kit and refer to the instruction sheet included in the kit for installation.

NOTE

THE DAMPER KIT WILL NOT HELP A STEERING WHEEL NIBBLE CONDITION OR A DRIVELINE VIBRATION (25-45 HZ).

NOTE

CERTAIN VEHICLES ARE ALREADY EQUIPPED WITH THE FRAME DAMPER

PART NUMBER	PART NAME
4L3Z-5D008-AA	Frame Damper Kit (2004-2005 F-150 And 2006 Mark LT Built On Or Before 8/26/2005)
6L3Z-5D008-B	Frame Damper Kit (2006-2008 F-150 And 2006-2008 Mark LT Built After 8/26/2005)

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.

DEALER CODING

BASIC PART NO.	CONDITION CODE
5D005 (OPERATION R)	42
ALBAL (OPERATION B - C)	D9
NPF (OPERATION A)	82
TWC01 (OPERATION D - Q)	42

Labor Operation Description		Vehicles	Labor Operation Code	Time
Group 1 - Vibration Diagnostic (If required, a group 1 labor op may be used with groups 2, 3, 4, 5 and 6)	Time includes installation and removal of electronic vibration test equipment, performing a test drive to eliminate temporary tire flat spotting, and recording vibration readings during test drive. If concern is resolved, return vehicle to customer.	2005-2008 F150, Expedition, Navigator, Escape, Mariner, Explorer, Mountaineer, F-Super Duty 250-350 (SRW), or Ranger 2006-2008 Mark LT 2005, 2007-2008 Explorer Sport Trac 2005 Excursion	082402A	0.7
		2005-2008 F-Super Duty 350 (DRW) 2005-2008 F-Super Duty 450-550 (DRW) 2006-2008 F53 (DRW)		
Labor Operation Description		Vehicles	Labor Operation Code	Time
Group 2 - Check Run Out / Road Force and Balance Tires (If required, a group 2 labor op may be used with groups 1, 3, 4, 5 and 6)	Time includes removing wheel / tire assemblies from vehicle, marking high spot of Road Force® / radial run out, balancing wheel / tire assemblies, and optimizing hub to wheel clearance when installing wheel / tire assemblies back onto vehicle.	2005-2008 F150, Expedition, Navigator, Escape, Mariner, Explorer, Mountaineer, F-Super Duty 250-350 (SRW), or Ranger 2006-2008 Mark LT 2005, 2007-2008 Explorer Sport Trac 2005 Excursion	082402B (4 tires)	0.6
		2005-2008 F-Super Duty 350 (DRW)	082402C (6 tires)	1.1
		2005-2008 F-Super Duty 450-550 (DRW)	082402C (6 tires)	1.5
		2006-2008 F53 (DRW)	082402C (6 tires)	1.5
Labor Operation Description		Vehicles	Labor Operation Code	Time
Group 3 - Match Mount Tire / Wheel Assemblies (If required, a group 3 labor op may be used with groups 1, 2, 4, 5 and 6)	Time includes Match Mounting tire(s) to wheel(s) to reduce Road Force® / radial run out. Select only 1 labor operation to reflect the number of tires which were match mounted.	2005-2008 F150, Expedition, Navigator, Escape, Mariner, Explorer, Mountaineer, F-Super Duty 250-350 (SRW), or Ranger 2006-2008 Mark LT 2005, 2007-2008 Explorer Sport Trac 2005 Excursion	082402D (1 tire)	0.2
			or 082402E (2 tires)	0.4
			or 082402F (3 tires)	0.6
			or 082402G (4 tires)	0.8
		2005-2008 F-Super Duty 350 (DRW)	082402D (1 tire)	0.2
			or 082402E (2 tires)	0.4
			or 082402F (3 tires)	0.6
			or 082402G (4 tires)	0.8
		2005-2008 F-Super Duty 450-550 (DRW) 2006-2008 F-53 (DRW)	or 082402H (5 tires)	1.0
			or 082402J (6 tires)	1.2
			082402D (1 tire)	0.4
			or 082402E (2 tires)	0.8
	or 082402F (3 tires)	1.2		
	or 082402G (4 tires)	1.6		
	or 082402H (5 tires)	2.1		
	or 082402J (6 tires)	2.5		

Do not use these labor operations with any other labor operations outside of this TSB.

TB-9244-D

Figure 1 - Article 08-24-2

Labor Operation Description		Vehicles	Labor Operation Code	Time	
Group 4 - Replace Tire(s) and/or Wheel(s) (If required, a group 4 labor op may be used with groups 1, 2, 3, 5 and 6)	Time includes replacing tire(s) and/or wheel(s) Select only 1 labor operation to reflect the number of tires or wheels which were replaced. Use incremental M-Time if TPMS sensor band replacement is necessary with wheel replacement (excludes DRW vehicles).	2005-2008 F150, Expedition, Navigator, Escape, Mariner, Explorer, Mountaineer, F-Super Duty 250-350 (SRW), or Ranger	082402K (1 tire) or 082402L (2 tires)	0.2 0.3	
		2006-2008 Mark LT	or 082402M (3 tires)	0.5	
		2005, 2007-2008 Explorer Sport Trac	or 082402N (4 tires)	0.6	
		2005-2008 F-Super Duty 350 (DRW)	082402K (1 tire) or 082402L (2 tires)	0.2 0.4	
			082402M (3 tires) or 082402N (4 tires)	0.6 0.7	
			082402P (5 tires) or 082402Q (6 tires)	0.9 1.1	
			2005-2008 F-Super Duty 450-550 (DRW) 2006-2008 F53 (DRW)	082402K (1 tire) or 082402L (2 tires)	0.3 0.6
				082402M (3 tires) or 082402N (4 tires) or 082402P (5 tires) or 082402Q (6 tires)	0.9 1.2 1.5 1.7

Labor Operation Description		Vehicles	Labor Operation Code	Time
Group 5 - Install Frame Damper Kit F150 / Mark LT only (If required, this labor op may be used with groups 1, 2, 3, 4, and 6)	Includes time to install frame damper kit	2005-2008 F150 2006-2008 Mark LT	082402R	0.7

Labor Operation Description		Vehicles	Labor Operation Code	Time
Group 6 - Post Road Test (If required, group 6 may be used with groups 1, 2, 3, 4, and 5)	Post Repair Road Test	2005-2008 F150, Expedition, Navigator, Escape, Mariner, Explorer, Mountaineer, F-Super Duty 250-350 (SRW), or Ranger 2006-2008 Mark LT 2005, 2007-2008 Explorer Sport Trac 2005 Excursion 2005-2008 F-Super Duty 350 (DRW) 2005-2008 F-Super Duty 450-550 (DRW) 2006-2008 F-53 (DRW)	082402S	0.2

Do not use these labor operations with any other labor operations outside of this TSB.

TB-9245-B

Figure 2 - Article 08-24-2