# TECHNICAL BULLETIN-0002 2017 FORD BULLETIN FOR STEERING OSCILLATION



Ford Technical Service Bulletin #18-2268 addresses the problem of sustained steering wheel oscillation or 'Death Wobble' in 2017 to 2019 Ford F-Super Duty trucks. It describes the process and procedure for diagnosing this problem and shows what a Ford dealer may cover under warranty. It is specific to these Ford vehicles and does not cover basic inspection for older or modified vehicles. For more diagnostic information refer to the SPC FAQ on 'Death Wobble' on our FAQ/Subject webpage. Among other things, this TSB recommends that tire pressure be checked and the steering damper be removed for inspection and replaced if needed. If the steering damper passes then Ford recommends decreasing caster to the lower end of specifications without exceeding the limit. It recommends replacement of the upper ball joint sleeve adjuster assembly (SPC 23220 Series Truck Sleeves) up to 1 degree. The complete bulletin is attached below.

# TECHNICAL SERVICE BULLETIN 4-Wheel Drive (4WD) - Sustained Steering Wheel Oscillation - Above 45 MPH (72 Km/h) - Built On Or Before 31-Jul-2018

18-2268

31 August 2018

## Model:

Ford 2017-2019 F-Super Duty

Issue: Some 2017-2019 F-250/F-350 4WD vehicles built on or before 31-Jul-2018 may exhibit a sustained steering wheel oscillation after driving over rough pavement or an expansion joint above 45 mph (72 Km/h).

Action: Follow the Service Procedure steps to correct the condition.

### Parts

Part Number	Description	Quantity
HC3Z-3E651-D	Steering Linkage Damper	1
5C3Z-3B440-EEE	1º Adjuster Assembly	2
5C3Z-3B440-DDD	3/4° Adjuster Assembly	2
5C3Z-3B440-CCC	1/2° Adjuster Assembly	2
5C3Z-3B440-BBB	1/4° Adjuster Assembly	2
F2TZ-3A049-A	Castle Nut	2
W525288-S437	Cotter Pin	2

Warranty Status: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

### Labor Times

Description	Operation No.	Time
2017-2019 F-Super Duty 4X4 250/350: Inspect The Vehicle, Set Tire Pressure, Remove Steering Damper And Test (Fails) Replace Damper (Do Not Use With Any Other Labor Operations)	182268A	0.4 Hrs.
2017-2019 F-Super Duty 4X4 250/350: Inspect The Vehicle, Set Tire Pressure, Remove Steering Damper And Test (Pass) Reinstall Damper (Can Be Claimed With Operation C Or D) (Do Not Use With Any Other Labor Operations Outside Of This Article)		0.4 Hrs.
2017-2019 F-Super Duty 4X4 250/350: Additional Time To Check And Adjust Caster, Camber Toe In On One (1) Side (Can Be Claimed With Operation B)		1.3 Hrs.
2017-2019 F-Super Duty 4X4 250/350: Additional Time To Check And Adjust Caster, Camber Toe In On Both (2) Sides (Can Be Claimed With Operation B)		1.8 Hrs.

## Repair/Claim Coding

Causal Part:	3E651
Condition Code:	42

## **Tool List**

Drive	Tool Name	
3/8"	Power Tool	
3/8"	Ratchet	
3/8"	Torque Wrench	
3/8"	15 mm Deep Socket	
3/8"	18 mm Deep Socket	

Drive	Tool Name
1/2"	Power Tool
1/2"	Ratchet
1/2"	Torque Wrench
1/2"	15 mm Socket
1/2"	28 mm Socket
1/2"	28 mm Crows Foot
	Pipe Wrench
	Pliers
	Hammer

# Service Procedure

- 1. Is the customer complaint that the vehicle exhibits a sustained steering wheel oscillation after hitting rough pavement or an expansion joint at speeds above 45 mph (72 Km/h)?
  - (1). Yes proceed to Step 2.
  - (2). No this article does not apply. Refer to Workshop Manual (WSM), Section 204-00 for diagnosis.
- 2. Does the vehicle have aftermarket modifications to the chassis, steering or suspension systems?
  - (1). Yes this article does not apply. Recommend to the customer that all aftermarket modifications to the chassis, steering and suspension systems should be removed. Aftermarket equipment should not be removed without customer consent and removal is not a warrantable action.
  - (2). No proceed to Step 3.
- 3. Check and adjust the tire pressure as indicated on the driver's door placard, Proceed to Step 4.
- 4. Remove the steering linkage damper. Refer to WSM Section 211-03. Test the damper for lag/lash.
  - (1). Place the steering linkage damper in the vertical position so the tapered stud end is at the top and the bushing end is at the bottom. By hand, attempt to compress and extend the damper. Lag/lash is most likely to be noticed when transitioning from extension to compression, constant resistance should be felt.
- 5. Is any lag/lash felt?
  - (1). Yes proceed to Step 6.
  - (2). No install the steering linkage damper back in the vehicle. Refer to WSM Section 211-03. Proceed to Step 7.
- 6. Obtain a new steering linkage damper. Check the steering linkage damper package date code (Figure 1). Does the package date code indicate a package date on or after 01-May-2018?
  - (1). Yes replace the steering linkage damper. Refer to WSM Section 211-03. Repair is complete.
  - (2). No repeat Step 6 until a steering linkage damper is received with a package date code on or after 01-May-2018.

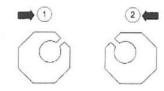
### Figure 1



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7. Reduce the front caster of both front wheels to the lower end of the specification without exceeding the limit. The front camber, cross-camber and cross-caster should be set as close as possible to the nominal specifications found in WSM, Section 204-00. Figure 2 provides the optimal starting position of the alignment bushing when performing the caster adjustment. (Figure 2)

Figure 2



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Item	n Description	
1	Left side	
2	Right side	

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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 or Lincoln 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.