NOTE
SETTING TIRE PRESSURE TO DOOR SPECIFICATION IS ONE OF THE SINGLE MOST IMPORTANT MEASURES IN RESOLVING THIS ISSUE. LOWERING TIRE PRESSURE WILL MAKE THIS ISSUE WORSE.

ROAD TEST
1. Ask customer what type of road surface and speed generates the steering wheel oscillation.
2. Road test vehicle on similar road surface and speed, to gain a feel for the customer's issue.
3. If no issues are identified during the road test, do not proceed with the rest of this TSB.

STEERING DAMPER INSPECTION/REPLACEMENT AND STEERING/SUSPENSION FASTENER TORQUE CHECK

F-250/F-350 4X4 Applications:
1. Remove existing steering damper and frame attachment bracket.
2. Replace steering damper and frame mounting bracket with steering damper and frame bracket.
3. Attach steering damper to frame bracket and torque bolt to 76 lb-ft (103 N·m).
4. Assemble bracket and shock assembly to the frame with attachment bolt retainer pointing to rear of vehicle. Torque frame bracket nuts to 59 lb-ft (80 N·m).
5. Attach other end of shock to the steering drag link and torque to 66 lb-ft (90 N·m).
6. Install damper bolt cap to assure a friendly surface for the battery cable in case of casual contact.
NOTE
CHECK SURROUNDING ENVIRONMENT TO THE FRAME BRACKET AND DAMPER ASSEMBLY TO ENSURE THAT BATTERY CABLES ARE NOT CONTACTING BRACKET/BOLTS/DAMPER. ALSO, VERIFY THAT TRANSMISSION OIL COOLER LINES HAVE CLEARANCE TO THE DAMPER DUST SHIELD.

F-250/F-350 4X2 And All F-450/F-550 Applications:
1. Wipe down and inspect the steering damper. Turn the steering wheel from lock to lock several times to cycle the steering damper and inspect for leaks.
   a. If leaks are present, install a new steering damper.

Steering/Suspension Fastener Torque Check (4X2 And 4X4)
1. Check torques on the following steering and suspension fasteners and adjust to specification as required (see following Table).

<table>
<thead>
<tr>
<th>Description</th>
<th>Lb-ft</th>
<th>Nm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damper nuts (F-250/F-350 4X2)</td>
<td>59</td>
<td>80</td>
</tr>
<tr>
<td>Damper-to-bracket (F-250/ F-350 4X4)</td>
<td>76</td>
<td>103</td>
</tr>
<tr>
<td>Damper-to-drag link</td>
<td>66</td>
<td>90</td>
</tr>
<tr>
<td>Drag link-to-pitman arm nut</td>
<td>129</td>
<td>175</td>
</tr>
<tr>
<td>Inner tie-rod end nuts</td>
<td>85</td>
<td>115</td>
</tr>
<tr>
<td>Outer tie-rod end nuts</td>
<td>85</td>
<td>115</td>
</tr>
<tr>
<td>Track bar bracket-to-frame nuts and bolts</td>
<td>129</td>
<td>175</td>
</tr>
<tr>
<td>Track bar-to-track bar bracket bolt</td>
<td>406</td>
<td>550</td>
</tr>
<tr>
<td>Track bar-to-axle nut</td>
<td>185</td>
<td>250</td>
</tr>
<tr>
<td>Radius arm-to-axle bolts</td>
<td>222</td>
<td>300</td>
</tr>
<tr>
<td>Radius arm-to-bracket nut</td>
<td>222</td>
<td>300</td>
</tr>
</tbody>
</table>

NOTE
ADJUSTING TORQUE ON STEERING AND SUSPENSION FASTENERS IS VERY IMPORTANT IN RESOLVING THIS ISSUE. FASTENERS THAT ARE IMPROPERLY TORQUED WILL MAKE THIS ISSUE WORSE.

FRONT WHEEL ALIGNMENT AND REDUCE FRONT CASTER

NOTE
OSCILLATION ISSUES RESOLVED BY WHEEL ALIGNMENT ARE WARRANTED FOR 12/12 ONLY, REGARDLESS OF OTHER STEPS PERFORMED.
• This should lower the caster, while keeping the camber within the specification range. If the camber is not in the specification range then rotate the alignment adjustment bushing as needed.
• The final caster and camber settings must be within the specification limits.
• Maintain the current front camber, cross-camber and cross-caster settings as close as you possibly can.
• Adding weight behind the rear axle lowers the rear of the vehicle, which decreases the frame angle, which in effect increases caster.

For All F-250/350 4X2:
• Observe the camber position of the alignment bushing that is currently in the truck and attempt to maintain that position while moving the caster position forward in the truck.
• The final caster and camber settings must be within the specification limits.

NOTE
CASTER SETTING IS VERY IMPORTANT IN RESOLVING THIS ISSUE. INCREASING THE CASTER SETTING WILL MAKE THIS ISSUE WORSE.

REPLACEMENT OF REDUNDANT CONTROL STEERING WHEEL - Vehicles Built Prior To 10/8/2004 Only

NOTE
THE REPLACEMENT STEERING WHEEL WILL CONTAIN THE REDUNDANT CONTROLS.

1. Remove driver air bag assembly. Refer to WSM, Section 211-04 for complete instructions.
2. Remove the steering wheel.
3. Install new steering wheel.
4. Reinstall driver air bag assembly.
5. Re-set clear vision as required.

NOTE
FOR ADDITIONAL INFORMATION, PLEASE REFER TO SECTION 211-04 OF THE WSM FOR COMPLETE REMOVAL AND INSTALLATION PROCEDURES FOR THE STEERING COLUMN.
Check Tire Pressure, Road Test To Verify Repair,
Concern Not Resolved,
Check Steering Damper Replace If Necessary,
Verify Proper Torque On Steering Components,
Road Test If Concern Is Resolved Return To Customer (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

071010C 2005-2007 F-Super Duty 1.9 Hrs.
250/350 4X2 DUAL REAR WHEEL: Check And Adjust Front Wheel Alignment, This Labor Operation Can Be Claimed With Operation B Only (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

071010C 2005-2007 F-Super Duty 1.5 Hrs.
250/350 4X4 SINGLE REAR WHEEL: Check And Adjust Front Wheel Alignment, This Labor Operation Can Be Claimed With Operation B Only (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

071010C 2005-2007 F-Super Duty 1.8 Hrs.
250/350 4X4 SINGLE REAR WHEEL: Check And Adjust Front Wheel Alignment, This Labor Operation Can Be Claimed With Operation B Only (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

071010C 2005-2007 F-Super Duty 2.1 Hrs.
250/350 4X4 DUAL REAR WHEEL: Check And Adjust Front Wheel Alignment, This Labor Operation Can Be Claimed With Operation B Only (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

071010C 2005-2007 F-Super Duty 2.3 Hrs.
F450/550 4X2/4X4 DUAL REAR WHEEL: Check And Adjust Front Wheel Operation Can Be Claimed With Operation B Only (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

071010D 2005-2007 F-Super Duty 0.7 Hr
10-8-2004: Replace Steering Wheel, Includes Time To Depower And Repower The Supplemental Restraints System Can Be Claimed With Operation A Or B (Do Not Use With 1007D, 3001A, 3001A1, 3001A6, 3600A)

DEALER CODING
BASIC PART NO. CODE
(OPERATION A) NPF 82
(OPERATION B) 3E651 42
(OPERATION C) FRONT W6
(OPERATION D) 3600 42