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Ford Motor Company  
P. O. Box 1904  
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September 10, 2013

**TO:** All U.S. Ford and Lincoln Dealers

**SUBJECT: Safety Recall 13S08**

Certain 2005 Through 2011 Model Year Crown Victoria, Grand Marquis, and Town Car  
Vehicles Originally Sold or Currently Registered in Corrosion States  
Steering Column Shaft

**AFFECTED VEHICLES**

Certain 2005 through 2011 model year Crown Victoria, Grand Marquis, and Town Car vehicles originally sold or currently registered in the following states:

Connecticut	Iowa	Michigan	New York	Virginia
Delaware	Kentucky	Minnesota	Ohio	West Virginia
District of Columbia	Maine	Missouri	Pennsylvania	Wisconsin
Illinois	Maryland	New Hampshire	Rhode Island	
Indiana	Massachusetts	New Jersey	Vermont	

Affected vehicles are identified in OASIS. In addition, for a list of vehicles assigned to your dealership, visit <https://web.fsavinlists.dealerconnection.com>. This information will be available September 10, 2013.

**NOTE:** A separate Customer Satisfaction Program (13R01), covering inspections and repairs on affected vehicles located outside of the above listed corrosion states, is expected to be launched within the next 30 days. If a 2005 through 2011 model year Crown Victoria, Grand Marquis, or Town Car vehicle outside the 13S08 population is presented to your dealership for inspection and repairs prior to the launch of 13R01, contact the Special Service Support Center for direction.

**REASON FOR THIS SAFETY RECALL**

In some of the affected vehicles, corrosion of the swing link joints on the Lower Intermediate Steering Shaft, combined with a collapsed Upper Intermediate Steering Shaft, can result in steering column separation leading to a loss of steering control.

Some customers have reported a potential change in steering feel (notchy, stiff, or binding) when the corrosion is present.

## **SERVICE ACTION**

The steering system is comprised of multiple parts that need to be inspected to determine the correct repair.

- All vehicles will require replacement of the Lower Intermediate Shaft (Lower I-Shaft).
- All vehicles will require inspection (measurement) of the Upper Intermediate Shaft (Upper I-Shaft). Those failing the inspection will need to be extended to the correct length.
- All vehicles will require inspection of the Lower Steering Column Bearing position. Those found to be out of position will need to be reseated and will have a retainer installed.

### **Interim Repair (if Lower I-Shaft service parts are not available)**

Lower I-Shafts are currently available in limited supply; therefore an interim repair may need to be performed on some vehicles.

Detailed flowcharts for both the final and interim repairs are provided in Attachment III for use in determining the necessary inspections and repairs. Technicians should familiarize themselves with all aspects of the flowcharts prior to initiating repairs to avoid unnecessary disassembly/reassembly steps.

## **ROTUNDA SPECIAL SERVICE TOOL KIT**

A new Rotunda Special Service Tool Kit #TKIT-2013A-FLM, specifically developed for one element of the Steering Column repair (Column Bearing retention), was shipped to dealers on August 31, 2013. This new tool kit is provided at no cost and was shipped in a white box with an orange sticker attached that states "Attention Service Manager" and references programs 13S08 and 13R01. Additional tools can be ordered by contacting Rotunda (1-800-ROTUNDA/1-800-768-8632) and selecting option #5.

## **OWNER NOTIFICATION MAILING SCHEDULE**

Owner Letters are expected to be mailed late in October, 2013. Dealers should repair any affected vehicles that arrive at their dealerships, whether or not the customer has received a letter.

### **PLEASE NOTE:**

**Federal law requires dealers to complete this recall service before a new vehicle is delivered to the buyer or lessee. Violation of this requirement by a dealer could result in a civil penalty of up to \$7,000 per vehicle. Correct all vehicles in your new vehicle inventory before delivery.**

## **ATTACHMENTS**

Attachment I: Administrative Information  
Attachment II: Labor Allowances and Parts Ordering Information  
Attachment III: Technical Information – Overview, and Inspection/Repair Flowcharts  
Attachment IV: Technical Information – Inspection Procedures  
Attachment V: Technical Information – Repair Procedures  
Owner Notification Letter (when available)  
Recall Reimbursement Plan

## **QUESTIONS & ASSISTANCE**

Special Service Support Center (Dealer Assistance Only) .....1-800-325-5621  
Special Service Support Center (Parts Ordering) .....1-800-207-2444

Sincerely,



Michael A. Berardi



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Steering Column Shaft

**OASIS ACTIVATED?**

Yes, OASIS will be activated on September 10, 2013.

**FSA VIN LIST ACTIVATED?**

Yes, FSA VIN list will be available through <https://web.fsavinlists.dealerconnection.com> on September 10, 2013. Owner names and addresses will be activated in early November, 2013.

**NOTE:** Your FSA VIN list may contain owner names and addresses obtained from motor vehicle registration records. The use of such motor vehicle registration data for any purpose other than in connection with this recall is a violation of law in several states, provinces, and countries. Accordingly, you must limit the use of this listing to the follow-up necessary to complete this recall.

**STOCK VEHICLES**

- Correct all affected units in your new vehicle inventory before delivery.
- Use OASIS to identify any affected vehicles in your used vehicle inventory.

**SOLD VEHICLES**

- Owners of affected vehicles will be directed to dealers for repairs.
- Correct other affected vehicles identified in OASIS which are brought to your dealership.
- If a 2005 through 2011 model year Crown Victoria, Grand Marquis, and Town Car vehicle outside of the 13S08 population is presented to your dealership for inspection and repairs prior to the launch of 13R01, contact the Special Service Support Center for direction.

**TITLE BRANDED / SALVAGED VEHICLES**

Affected title branded and salvaged vehicles are eligible for this recall.

**RELATED DAMAGE**

If a related damage condition exists that you believe to be caused by the covered condition, call the Special Service Support Center to request approval **prior** to the repair of any related damage. Requests for approval after completion of the repair will not be granted. Ford Motor Company reserves the right to deny coverage for related damage in cases where the vehicle owner has not had this recall performed on a timely basis. Additional related damage parts are subject to random selection for return to the Ford Warranty Parts Analysis Center (WPAC).

**ADDITIONAL LABOR TIME**

- If a condition exists that requires additional labor to complete the repair, call the Special Service Support Center to request approval **prior** to performing any additional labor. Requests for approval after completion of the repair will not be granted.
- If you encounter aftermarket equipment or modifications to the vehicle which might prevent the repair of the covered condition, call the Special Service Support Center.

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**OWNER REFUNDS**

- **This safety recall must still be performed, even if the owner has paid for a previous repair. Claiming a refund will not close the recall on the vehicle.**
- Ford Motor Company is offering a refund for owner-paid repairs covered by this recall if the repair was performed prior to the date indicated in the reimbursement plan, which is posted with this bulletin. Owners are directed to seek reimbursement through authorized dealers or, at their option, directly through Ford Motor Company at P.O. Box 6251, Dearborn, MI 48121-6251.
- Dealers are also authorized to refund owner-paid emergency repairs that were performed away from an authorized servicing dealer after the end date specified in the reimbursement plan. Non-covered repairs, or those judged by Ford to be excessive, will not be reimbursed.
- Refunds will only be provided for the cost associated with a Steering Column, Upper Intermediate Steering Shaft, or Lower Intermediate Steering Shaft replacement.

**RENTAL VEHICLES**

If a customer's vehicle requires the replacement of the Lower Intermediate Steering Shaft and it is necessary to order parts, Ford Motor Company will pay for 1 day of vehicle rental. Follow Extended Service Plan (ESP) guidelines for dollar amounts. The daily rate can include applicable taxes but is not allowed to exceed the stated daily rate. Rentals will only be reimbursed for the day the vehicle is at the dealership for part replacement. Prior approval for more than one rental day is required from the Special Service Support Center (1-800-325-5621).

**CLAIMS PREPARATION AND SUBMISSION**

- Enter claims using Direct Warranty Entry (DWE).
- Refer to ACESII manual for claims preparation and submission information.
- Related damage must be claimed on a repair line that is separate from the repair line on which the FSA is claimed. Related damage requires prior approval from the Special Service Support Center.
- "MT" labor should be submitted on a separate repair line with the related damage flag checked. "MT" labor requires prior approval from the Special Service Support Center.
- Submit refunds on a separate repair line.
  - Program Code: 13S08
  - Misc. Expense: ADMIN
  - Misc. Expense: REFUND
  - Misc. Expense: 0.2 Hrs.
- Multiple refunds should be submitted on one repair line and the invoice details for each repair should be detailed in the comments section of the claim.
- For rental vehicle claiming, follow Extended Service Plan (ESP) guidelines for dollar amounts. Enter the total amount of the rental expense under Miscellaneous Expense code "Rental".



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**LABOR ALLOWANCES**

Description	Labor Operation	Labor Time
<u>Final Repair Labor Operations (will close the FSA):</u>		
Inspect as required and replace the Lower Intermediate Steering Shaft	13S08B	0.4 Hour(s)
Inspect as required, replace the Lower Intermediate Steering Shaft, and Install the Bearing Retainer Kit	13S08C	1.4 Hour(s)
Inspect as required, replace the Lower Intermediate Steering Shaft, and extend the Upper Intermediate Steering Shaft	13S08D	0.6 Hour(s)
Inspect as required, replace the Lower Intermediate Steering Shaft, extend the Upper Intermediate Steering Shaft, and Install the Bearing Retainer Kit	13S08E	1.5 Hour(s)

<u>Interim Repair Labor Operations (FSA remains open):</u>		
Inspect as required, no repairs required at this time	13S08GG	0.3 Hour(s)
Inspect as required and extend Upper Intermediate Steering Shaft	13S08HH	0.5 Hour(s)
Inspect as required and install the Bearing Retainer Kit	13S08JJ	1.2 Hour(s)

**PARTS REQUIREMENTS / ORDERING INFORMATION**

Part Number	Description	Quantity
5W1Z-3605-A	Bearing Retainer Kit	1
5W1Z-3B676-A	Lower Intermediate Steering Shaft	1
W710821-S306	Lower Intermediate Steering Shaft to Steering Gear Bolt	1 Bolt (Unit of issue = 4)
W713065-S439	Lower Intermediate Steering Shaft to Upper Intermediate Steering Shaft Bolt (required when servicing the Lower or Upper I-Shafts)	1 Bolt (Unit of issue = 3)
	Upper Intermediate Steering Shaft to Steering Column Bolt (required when servicing the Steering Column or Upper I-Shaft)	1 Bolt (Unit of issue = 3)

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**PARTS REQUIREMENTS / ORDERING INFORMATION (continued)**

The DOR/COR number for this recall is 50520.

To manage part availability, dealers must use the web link below to access the 13S08 part availability web tool. This link will inform dealers if Lower Intermediate Steering Shafts are available and allow dealers to submit part orders to the Special Service Support Center.

The VIN Specific Parts List Tool application link is located in the web index box for this recall at FMCDealer.com, or go to:

<https://www.techhotline.dealerconnection.com/dealerpa/Lookup13S08Data.aspx>

Dealers will be notified via a DOES II communication if circumstances warrant a change in part supply strategy and when open ordering resumes.

**DEALER PRICE**

For latest prices, refer to DOES II.

**PARTS RETENTION AND RETURN**

Follow the provisions of the Warranty and Policy Manual, Section 1 "WARRANTY PARTS RETENTION AND RETURN POLICIES."

**EXCESS STOCK RETURN**

Excess stock returned for credit must have been purchased from Ford Customer Service Division in accordance with Policy Procedure Bulletin 4000.

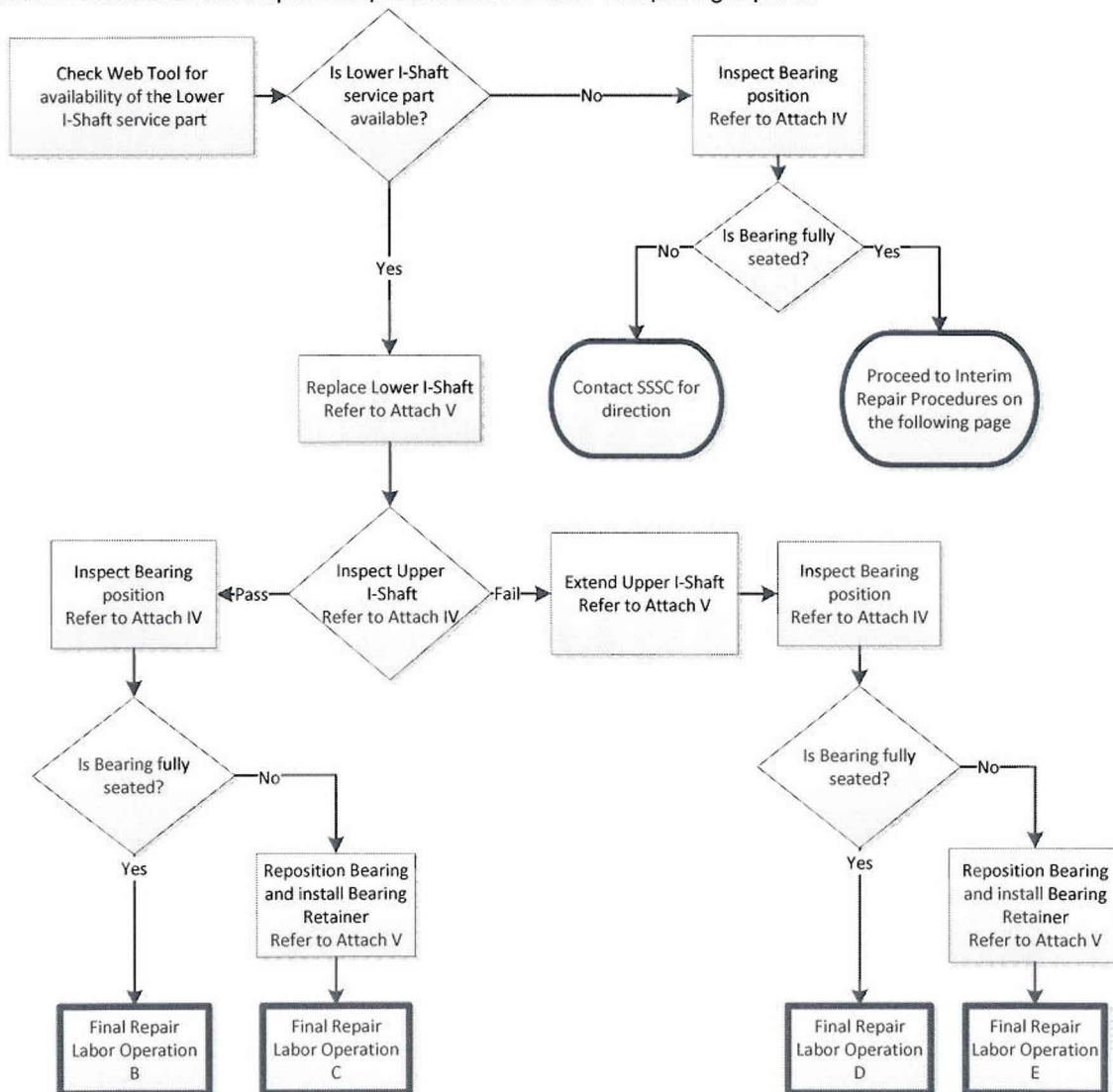
## CERTAIN 2005 THROUGH 2011 MODEL YEAR CROWN VICTORIA, GRAND MARQUIS, AND TOWN CAR VEHICLES — STEERING COLUMN SHAFT

### OVERVIEW

This service action requires replacement of the Lower Intermediate Steering Shaft (Lower I-Shaft), and inspection of other components to determine if additional repairs are required. Lower I-Shafts are currently available in limited supply; therefore an interim repair may need to be performed on some vehicles. Corrosion/seizure of the swing link joint on the Lower I-Shaft can affect other elements of the steering column system. Therefore, inspections of various components will be required before determining the appropriate repair action. Technicians should familiarize themselves with all aspects of the flowcharts prior to initiating repairs to avoid unnecessary disassembly/reassembly steps.

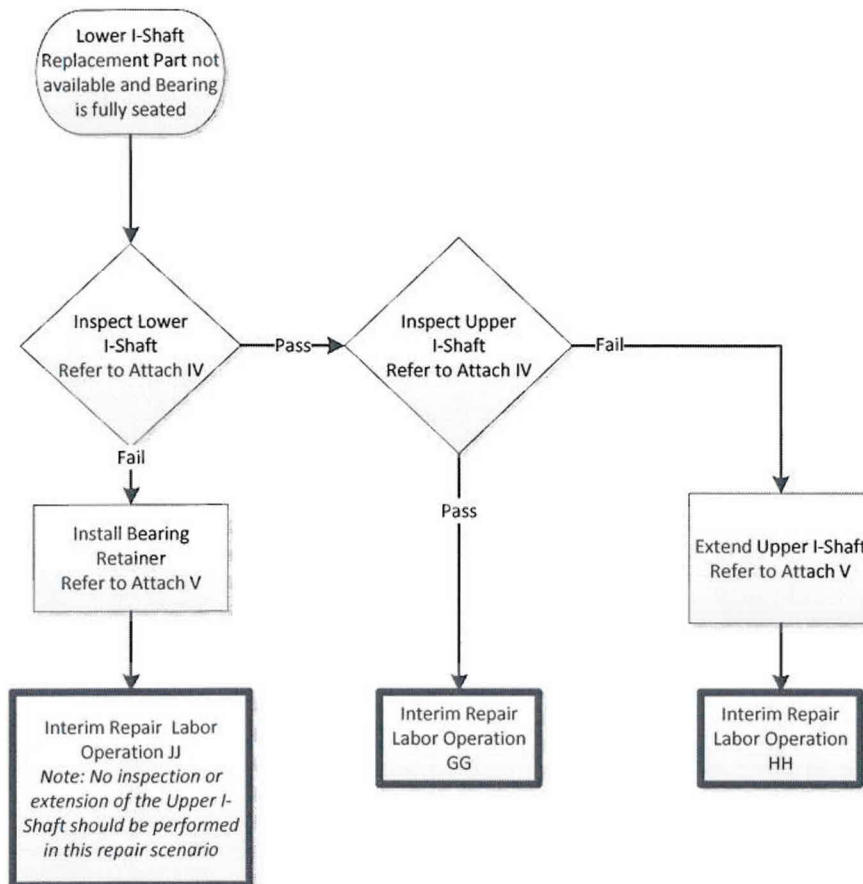
Refer to the following flow chart for inspection and repair criteria:

**NOTE:** Review all subsequent inspection areas before completing repairs.



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## Interim Repair Procedures





## INSPECTION PROCEDURES

### Lower I-Shaft Inspection

**NOTE:** Refer to the flow chart within Attachment III for repair direction.

**NOTICE:** Do not allow the steering wheel to rotate while the steering shaft is disconnected or damage to the clockspring may result. If there is evidence the steering shaft has rotated, the clockspring must be removed and recentered. For additional information, refer to Workshop Manual (WSM) Section 501-20B.

**NOTE:** To ensure proper alignment do not rotate the steering gear while the lower steering shaft is disconnected.

1. Use a steering wheel holding device (such as Hunter® 28-75-1 or equivalent) to hold the steering wheel in the straight-ahead position.
2. Remove and discard the upper steering shaft to lower steering shaft bolt and disconnect the lower steering shaft. See Figure 1.

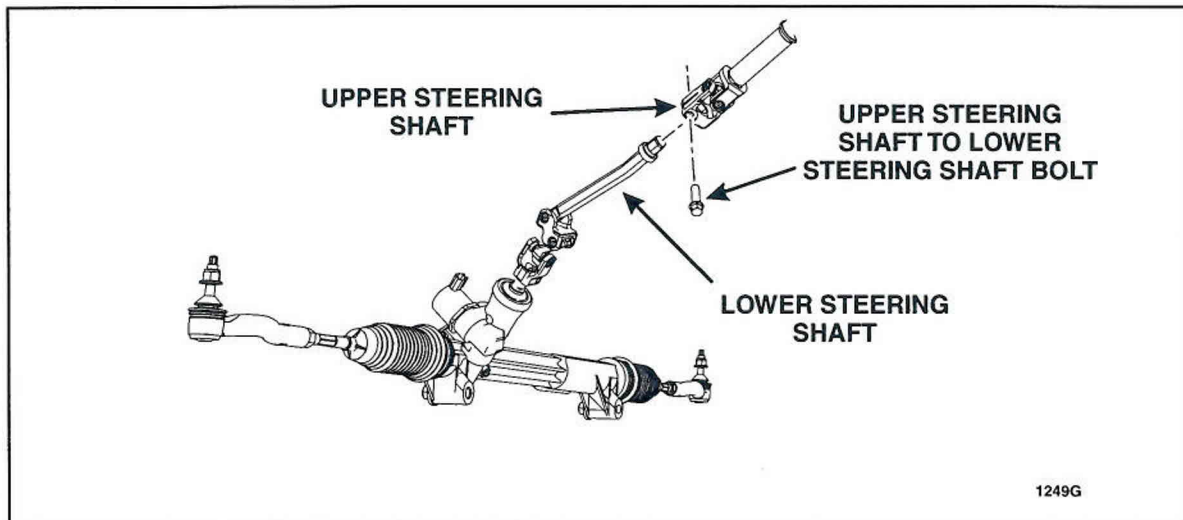


FIGURE 1



3. Inspect the lower steering shaft joints for binding or seizure. See Figure 2.

- Exercise the upper portion of the lower steering shaft throughout its range of motion.
- If the lower steering shaft does not move freely and without binding, it fails inspection.
- Reconnect the lower intermediate shaft using a *new* upper steering shaft to lower steering shaft bolt, after all subsequent inspections are complete.
  - Tighten the *new* bolt to 48 Nm (35 lb-ft).

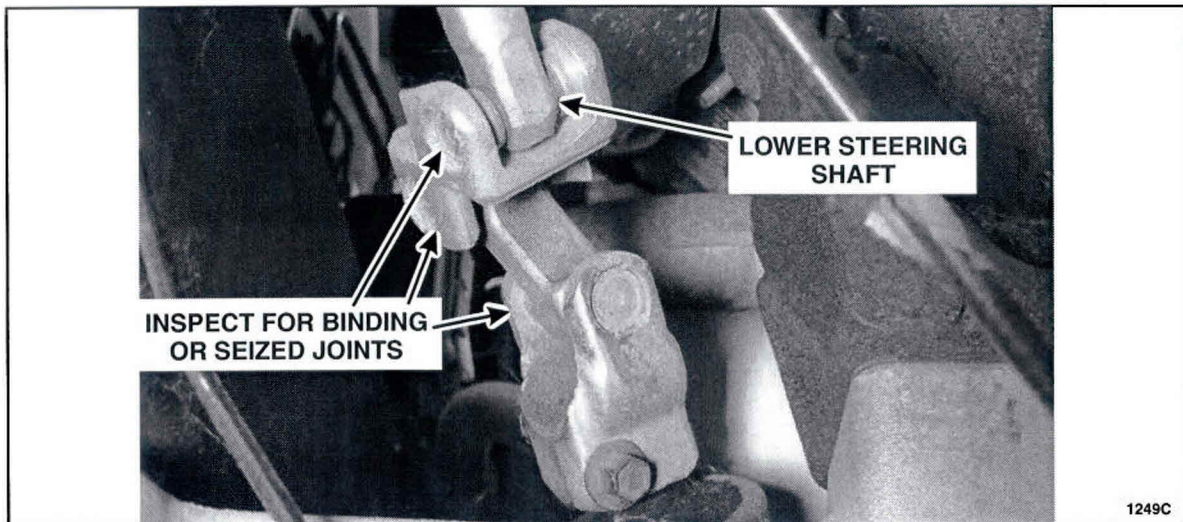


FIGURE 2



### Steering Column Bearing Position Inspection

1. Inspect the steering column for an unseated steering column bearing. See Figures 3 and 4.

- If the steering column bearing is unseated, it fails inspection.

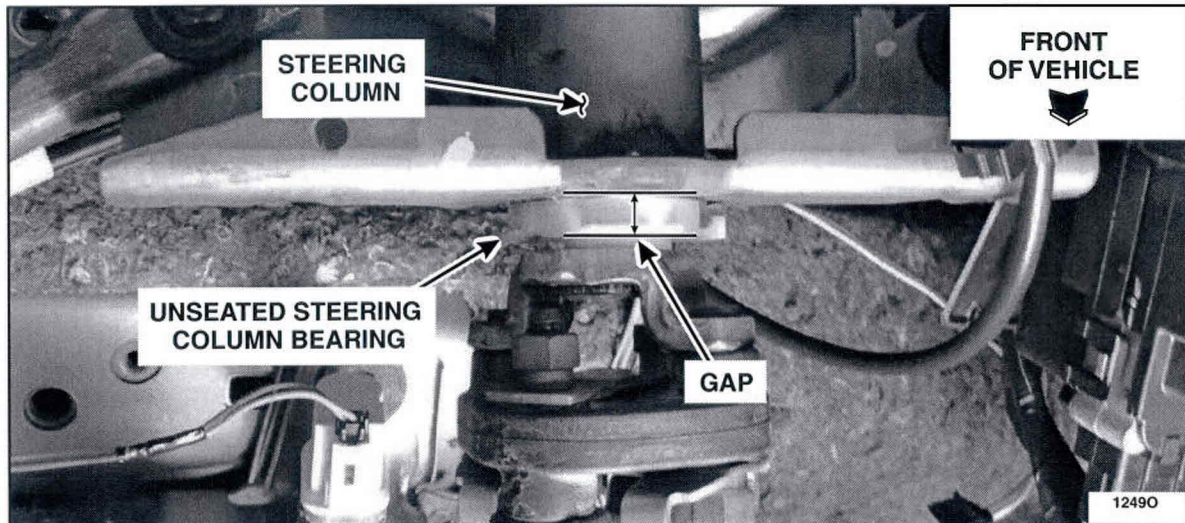


FIGURE 3

**NOTE:** Steering column shown out of vehicle for clarity.

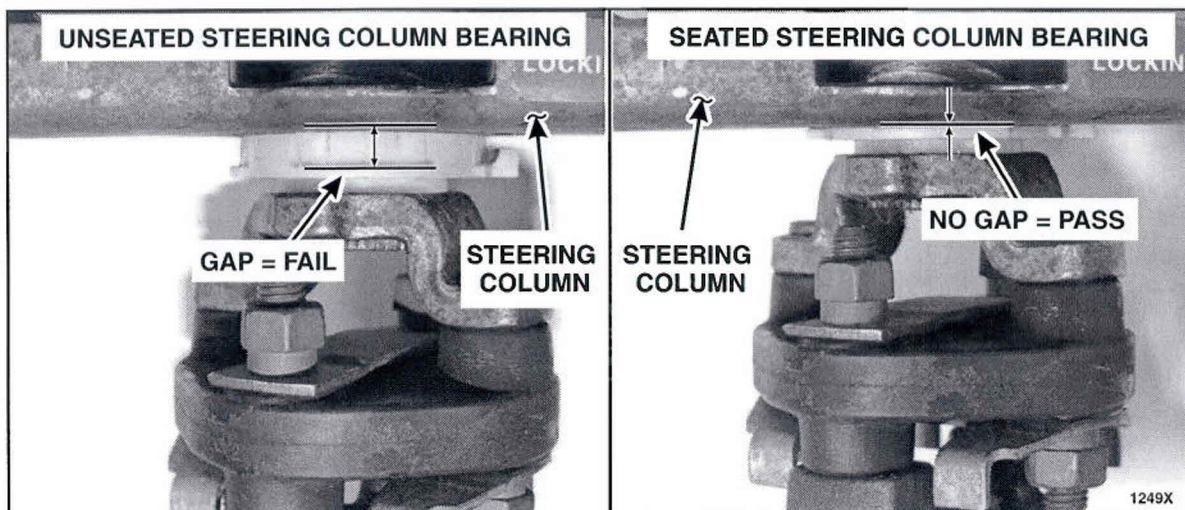


FIGURE 4



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### Upper I-Shaft Inspection

1. Measure the distance between upper steering shaft end and the edge of the shaft collar.  
See Figures 5 and 6.

- If the upper steering shaft measurement is less than 137 mm (5 3/8 in), it fails inspection.

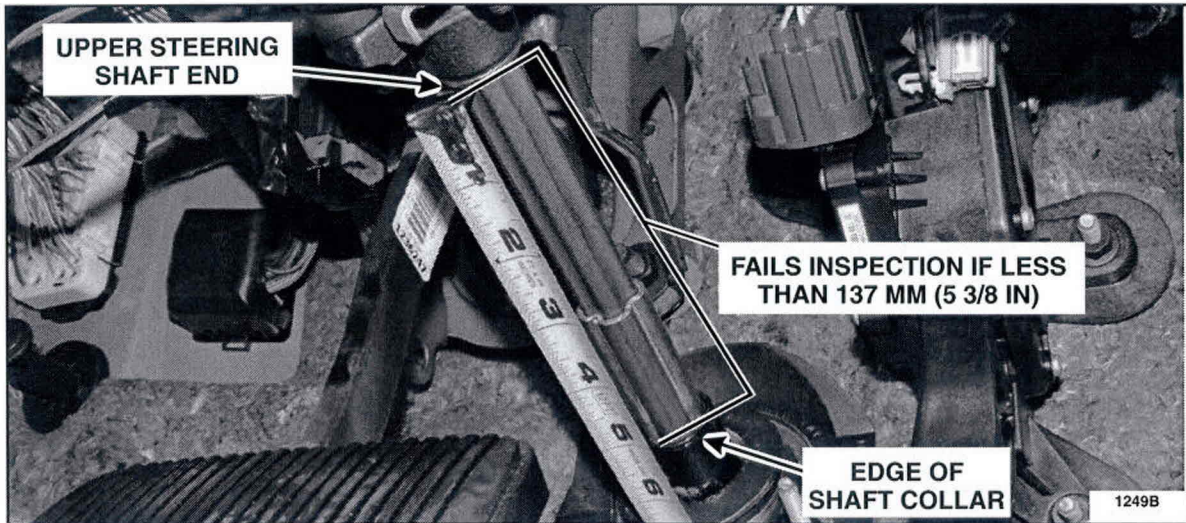


FIGURE 5

**NOTE:** Upper steering shaft shown out of vehicle for clarity.

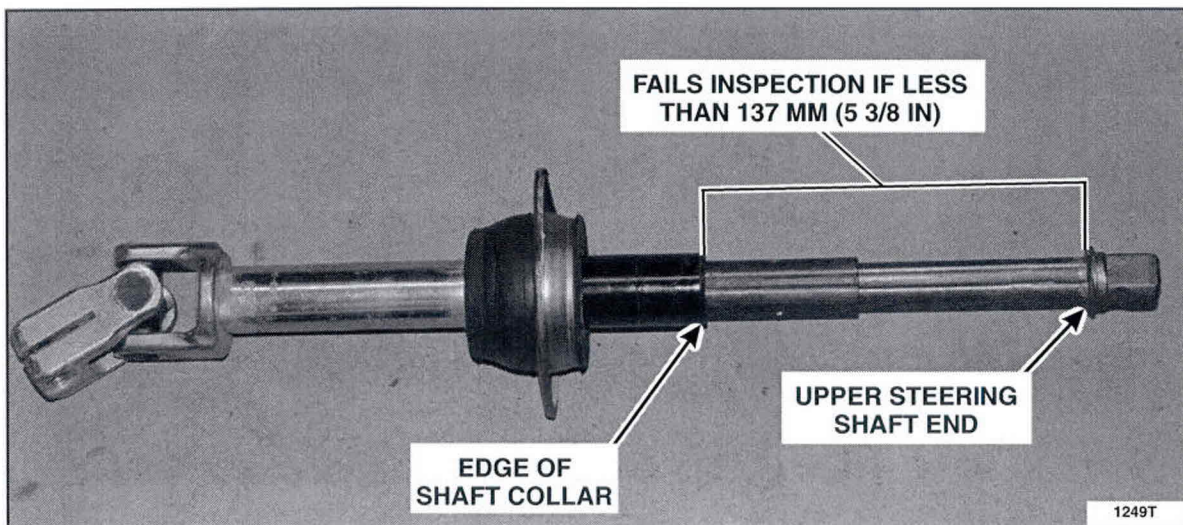


FIGURE 6



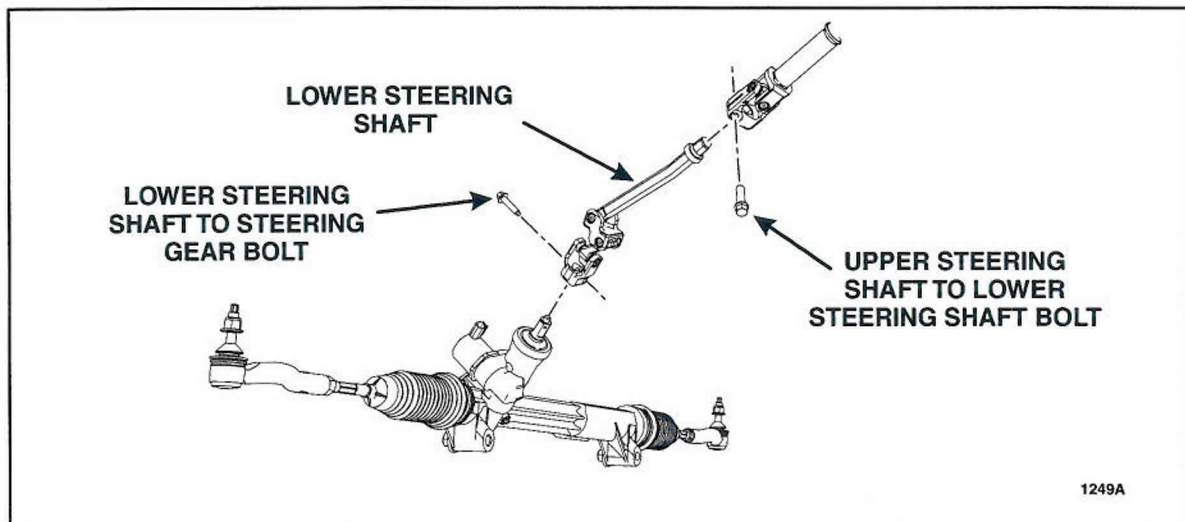
## REPAIR PROCEDURES

### Lower I-Shaft Replacement

**NOTICE:** Do not allow the steering wheel to rotate while the steering shaft is disconnected or damage to the clockspring may result. If there is evidence the steering shaft has rotated, the clockspring must be removed and recentered. For additional information, refer to Workshop Manual (WSM) Section 501-20B.

**NOTE:** To ensure proper alignment do not rotate the steering gear while removing the lower steering shaft.

1. If not done previously, use a steering wheel holding device (such as Hunter® 28-75-1 or equivalent) to hold the steering wheel in the straight-ahead position.
2. Remove the lower steering shaft. See Figure 1.
  - a. If not removed previously, remove and discard the upper steering shaft to lower steering shaft bolt.
  - b. Remove and discard the lower steering shaft to steering gear bolt.
  - c. Remove the lower steering shaft.



**FIGURE 1**

**NOTE:** The steering shaft bolts are one time use only. If applicable, do not install the upper steering shaft to lower steering shaft bolt until service on the steering column or upper steering shaft is completed, based on subsequent inspections - See Attachment III.

3. Install a *new* lower steering shaft. See Figure 1.
  - a. Install the *new* lower steering shaft.
  - b. Install a *new* lower steering shaft-to-steering gear bolt.
    - Tighten the *new* bolt to 30 Nm (22 lb-ft).
  - c. Install a *new* upper steering shaft to lower steering shaft bolt.
    - Tighten the *new* bolt to 48 Nm (35 lb-ft).
4. If no further repair is required, remove the steering wheel holding tool.



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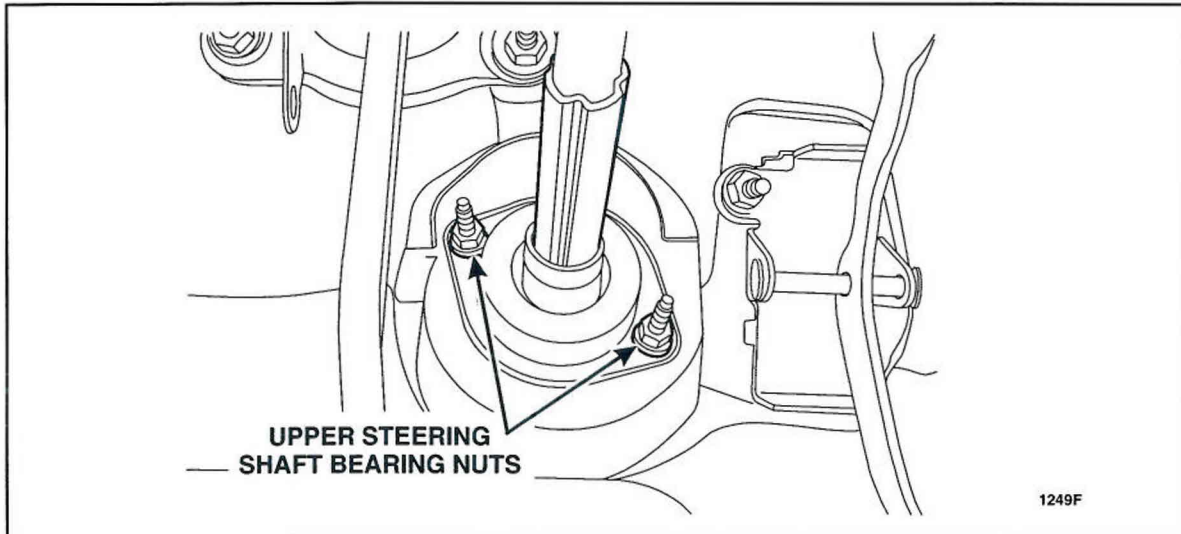


### Upper I-Shaft Repair (Failed Inspection Only, Refer to Flowchart within Attachment III)

**NOTICE:** Do not allow the steering wheel to rotate while the steering shaft is disconnected or damage to the clockspring may result. If there is evidence the steering shaft has rotated, the clockspring must be removed and recentered. For additional information, refer to WSM Section 501-20B.

**NOTE:** To ensure proper alignment do not rotate the steering gear while removing the upper steering shaft.

1. Use a steering wheel holding device (such as Hunter® 28-75-1 or equivalent) to hold the steering wheel in the straight-ahead position.
2. Remove and discard the steering column to upper steering shaft bolt.
3. Remove the 2 upper steering shaft bearing nuts. See Figure 2.



**FIGURE 2**





4. If not done previously, remove and discard the upper steering shaft to lower steering shaft bolt and remove the upper steering shaft. See Figure 3.

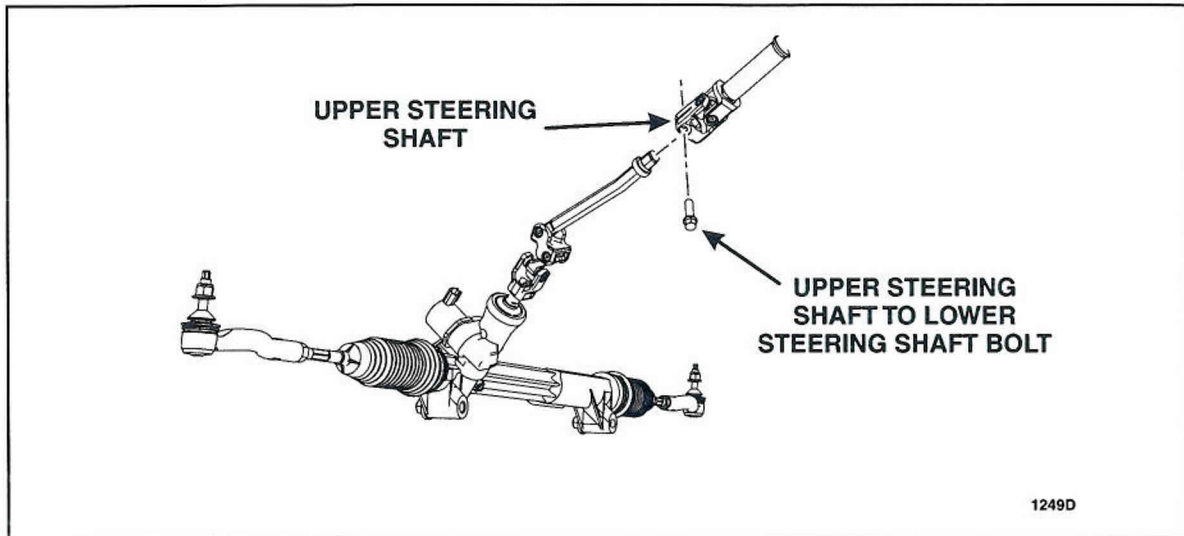


FIGURE 3

5. Remove the bearing from the upper steering shaft. See Figure 4.

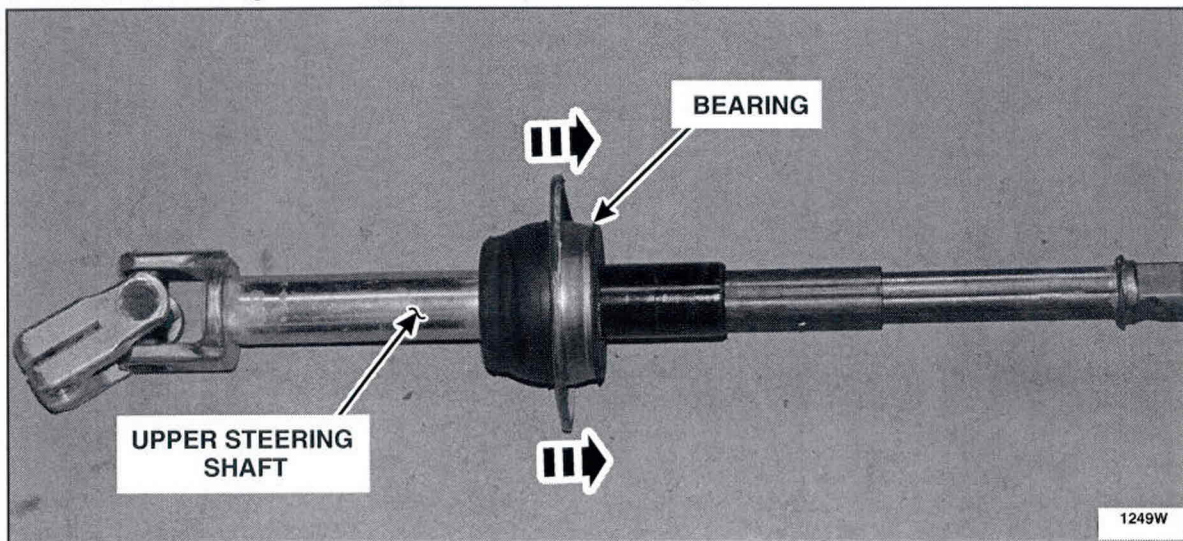
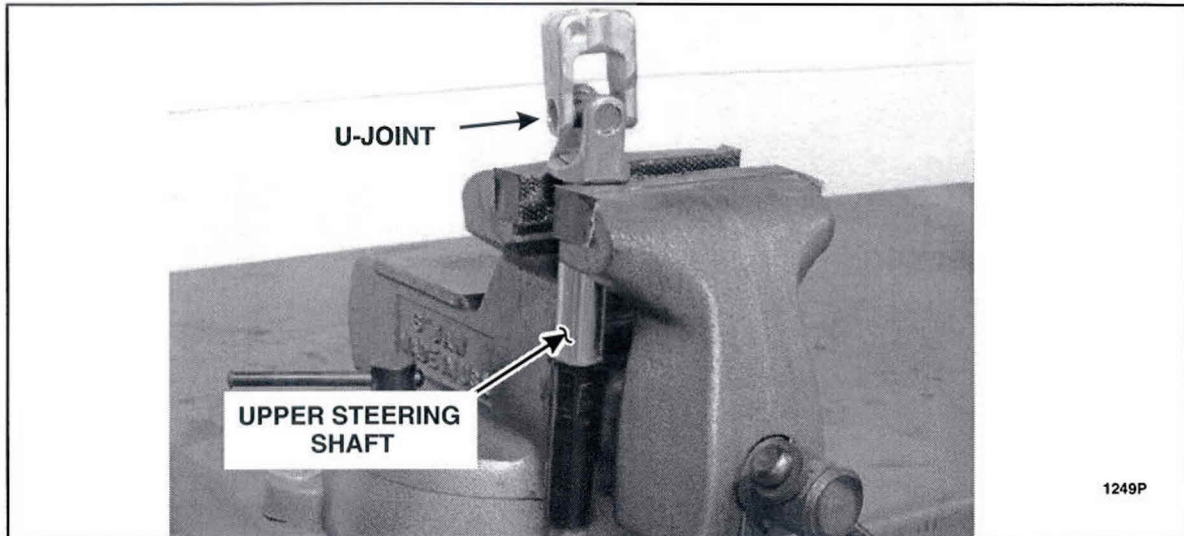


FIGURE 4



**NOTICE:** While placing the upper steering shaft in a vise, close the vise just enough to hold the shaft in position. It is important not to mar or collapse the steering shaft or the integrity of the part may become compromised.

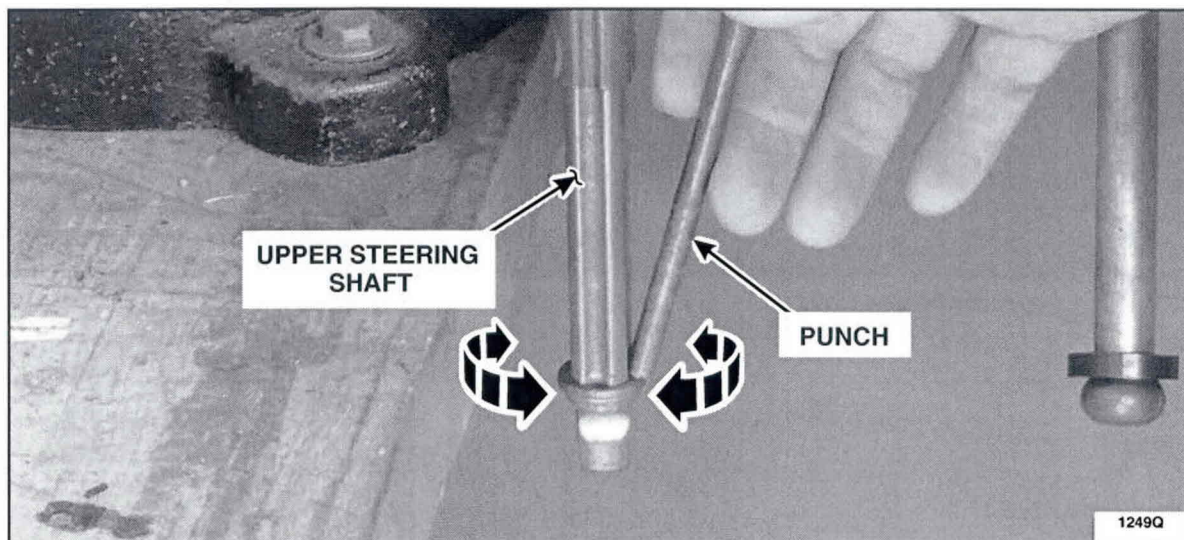
6. Loosely position the upper steering shaft into a vise, with the U-joint facing upwards and resting on top of the vise. See Figure 5.



**FIGURE 5**

7. Using a suitable punch and 16 ounce hammer, lightly tap around the steering shaft lip to evenly extend the shaft to 137-145 mm (5 3/8 - 5 3/4 in). See Figures 6 and 7.

- Ensure that you tap around the entire steering shaft lip while performing this step to ensure that the steering shaft does not become misaligned within the shaft collar.

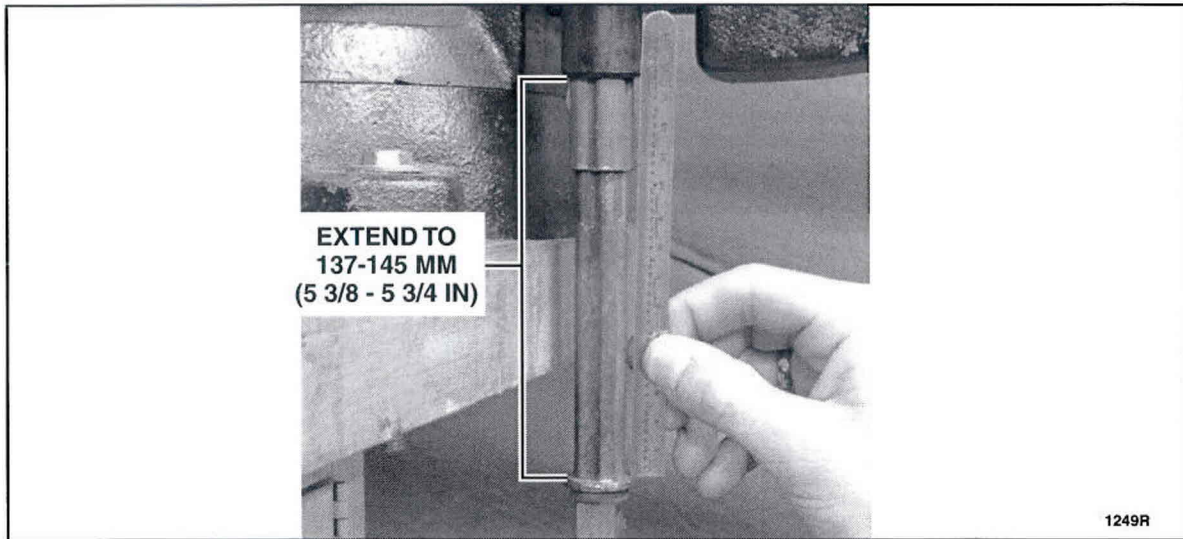


**FIGURE 6**



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**FIGURE 7**

8. Remove the upper steering shaft from the vice.

9. Install the bearing onto the upper steering shaft. See Figure 4.

**NOTE:** The steering shaft bolts are one time use only. If applicable, do not install the upper steering shaft to lower steering shaft bolt until service on the lower steering shaft is completed, based on subsequent inspections - See Attachment III.

10. Install the upper steering shaft and install a *new* upper steering shaft to lower steering shaft bolt. See Figure 3.

- Tighten the new bolt to 30 Nm (22 lb-ft).

11. Install the 2 upper steering shaft bearing nuts. See Figure 2.

- Tighten to 11 Nm (97 lb-in).

12. Install a *new* upper steering column to steering shaft bolt.

- Tighten the new bolt to 30 Nm (22 lb-ft).

13. If no further repair is required remove the steering wheel holding tool.





### Steering Column Bearing Orientation and Retainer Installation (Failed Inspection Only, Refer to Flowchart within Attachment III)

1. Remove the steering column from the vehicle. For additional information, refer to WSM Section 211-04.

**NOTE:** In some instances the steering column bearing orientation tab may have broken off. If the tab has broken off, the bearing is still usable and can be seated within the steering column in any orientation.

2. Align the bearing alignment tab with the slot in the column flange. See Figure 8.

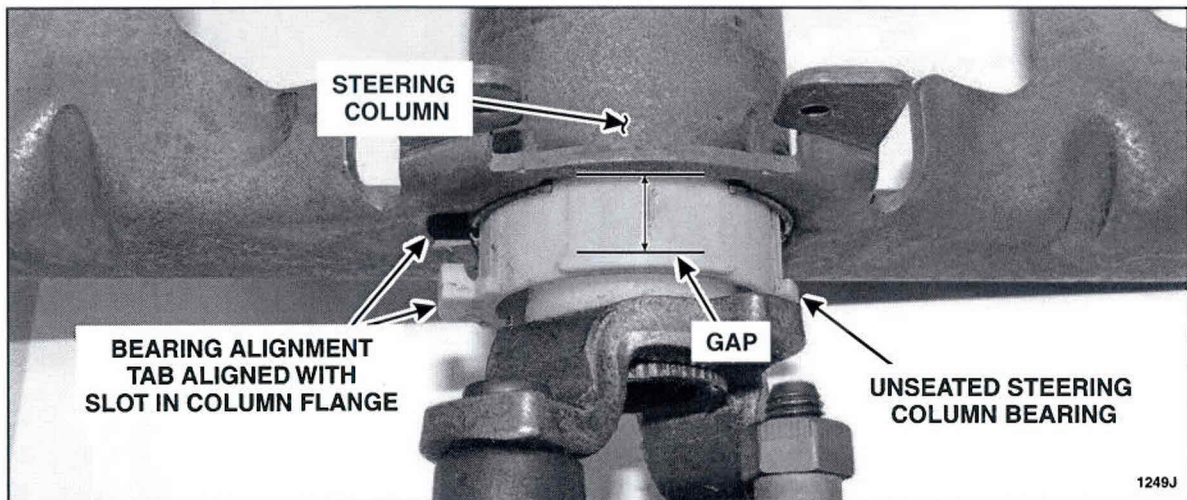


FIGURE 8

3. Use a suitable dead blow hammer to lightly tap the steering column to upper steering shaft coupling to seat the steering column bearing. See Figure 9.

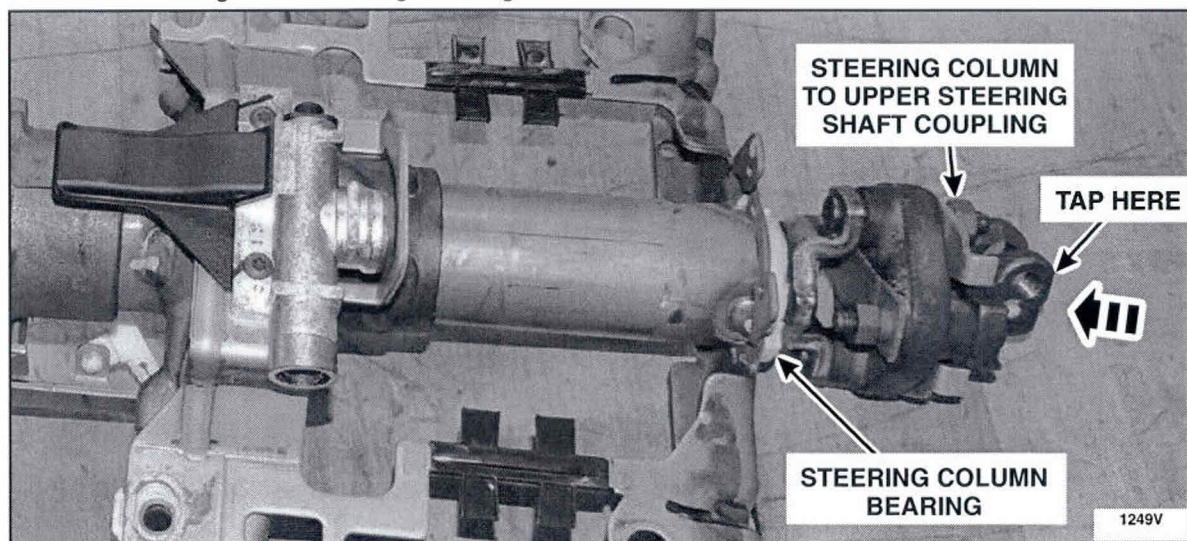


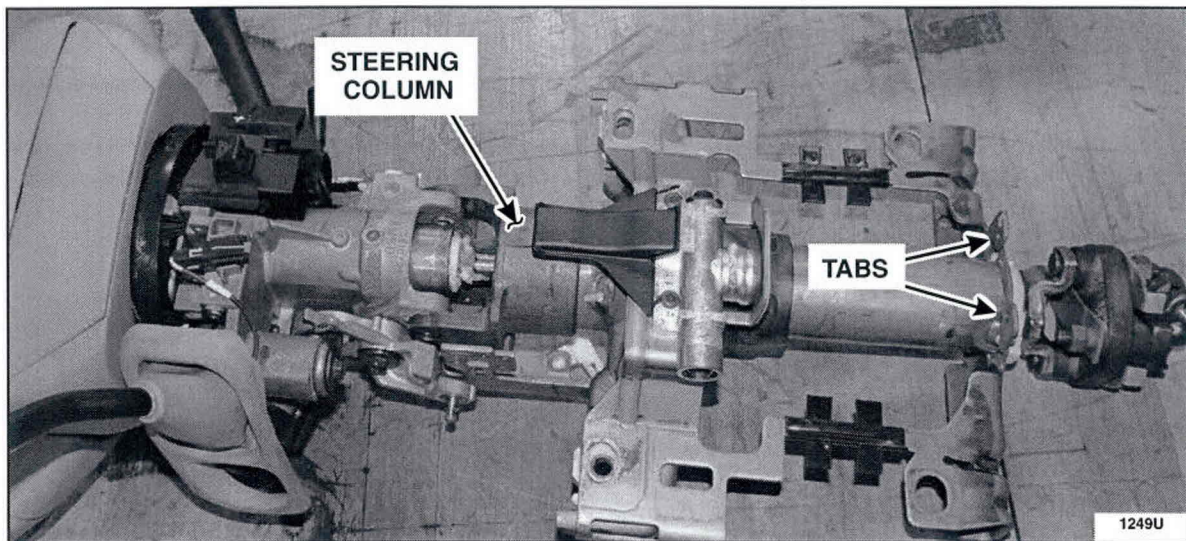
FIGURE 9



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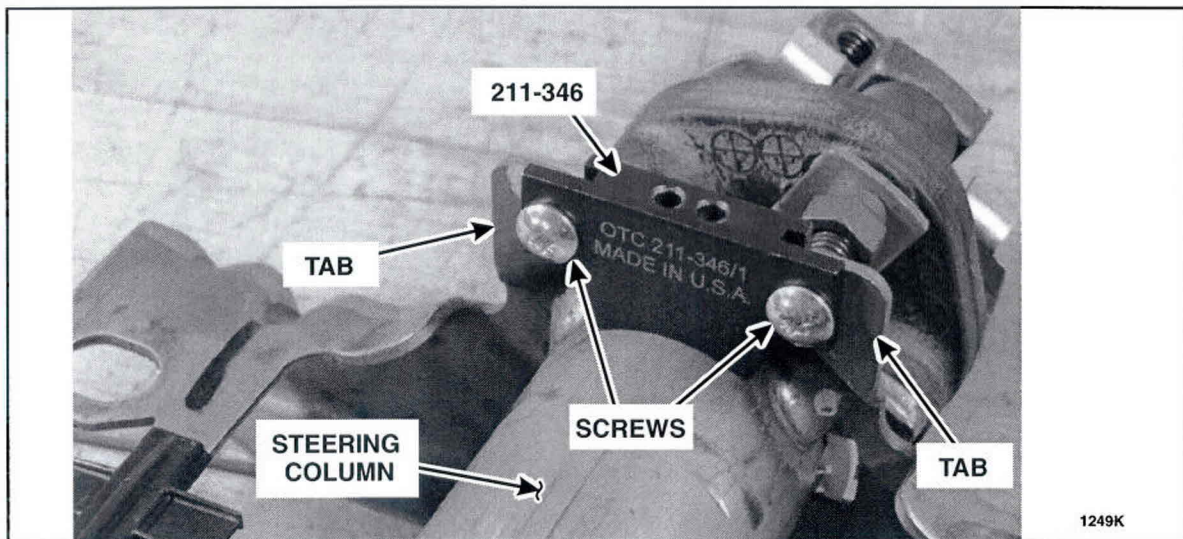
4. Locate the two tabs located at the forward end and top of the steering column. See Figure 10.



**FIGURE 10**

5. Install the special tool from Rotunda Special Tool Kit TKIT-2013A-FLM onto the two tabs located on the steering column, and secure with the two supplied screws. See Figure 11.

- Do not over tighten the screws.



**FIGURE 11**





6. Drill out both hole locations using a drill and the supplied drill bit from Rotunda Special Tool Kit TKIT-2013A-FLM. Drill bit depth is critical, use the supplied drill bit only. See Figure 12.

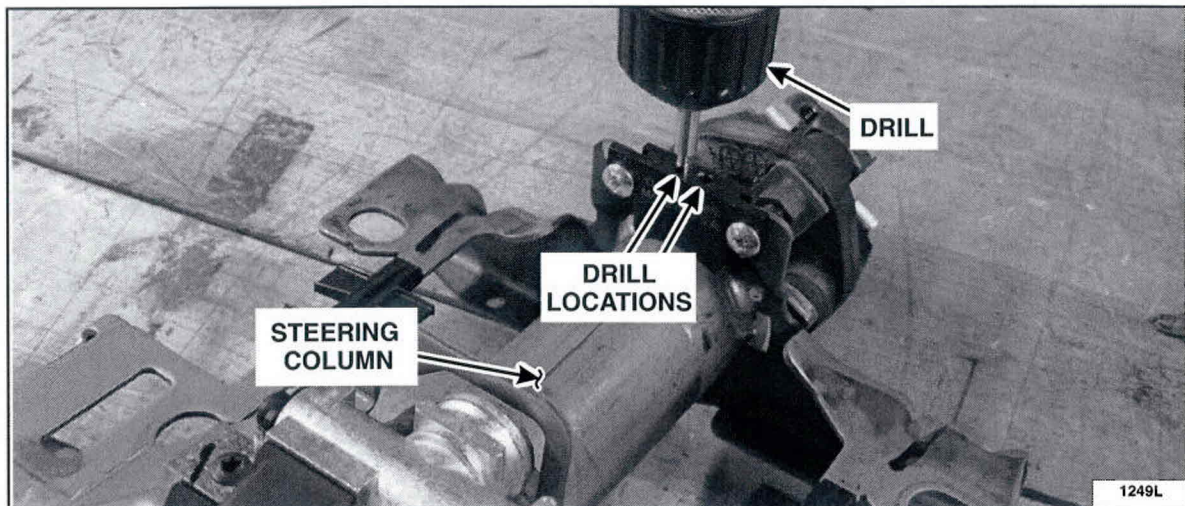


FIGURE 12

7. Remove the screws and the special tool from the steering column.
8. Position the bearing retainer to the upper steering shaft coupling with the angled side facing the steering column. Install the bearing retainer into the two previously drilled holes and install two supplied bolts. See Figure 13.
- Tighten to 2.5 Nm (22 lb-in).

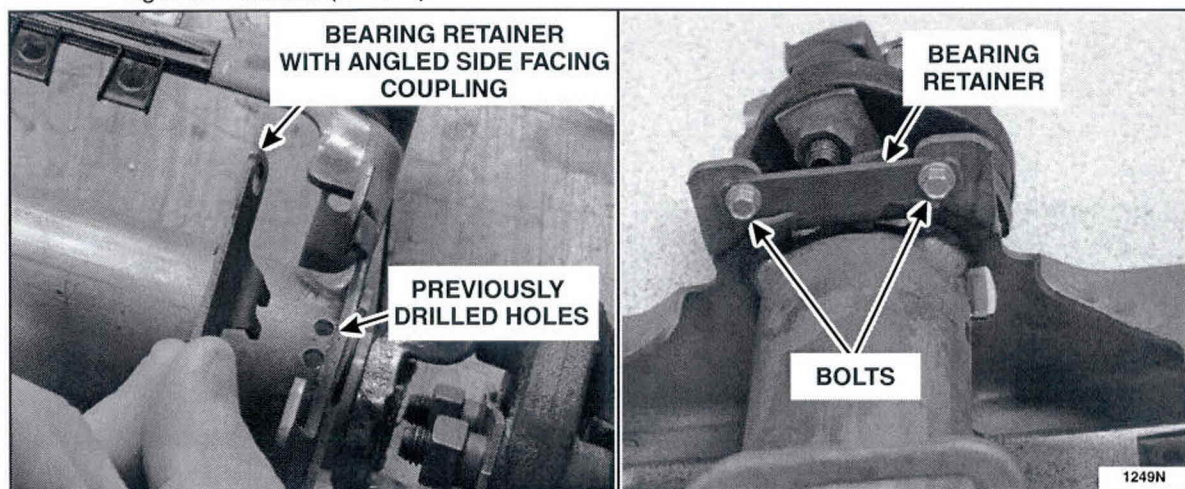


FIGURE 13

**NOTE:** The steering shaft bolts are one time use only. If applicable, do not install the steering column to upper steering shaft bolt until service on the upper steering shaft is completed, based on subsequent inspections - See Attachment III.

9. Install the steering column. For additional information, refer to WSM Section 211-04.