



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

1200 New Jersey Avenue SE.
Washington, DC 20590

February 22, 2012

[REDACTED]
Brighton, MA [REDACTED]

NVS-216 nam
Ref. 10407682

Dear [REDACTED]

Thank you for your correspondence concerning your MY 2004 Kia Sedona EX vehicle. Your correspondence was received by the National Highway Traffic Safety Administration's (NHTSA) Office of Defects Investigation (ODI). We apologize for any inconvenience our delay in responding may have caused you.

NHTSA is the Federal agency responsible for improving safety on our Nation's highways. We are authorized to order manufacturers to recall and repair vehicles or motor vehicle equipment when our investigations indicate that they contain safety defects in their design, construction, or performance. We also monitor the adequacy of manufacturers' recall campaigns. In order for the agency to initiate an investigation, we look carefully at the body of consumer complaints and other available data to determine whether a defect may exist. We cannot act on isolated problems or resolve disputes between individual owners, dealers, or manufacturers.

You indicate that the steering wheel locked in your MY 2004 Kia Sedona while making a left turn. You notified a dealer about this problem; however, your vehicle has not been diagnosed or repaired. You state the steering problem is getting worse and want to know what NHTSA is doing to resolve this problem.

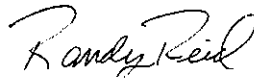
On April 28, 2008, ODI opened a safety defect investigation, preliminary evaluation (PE08-033, resume enclosed) into reports alleging increased steering effort in MY 2002 through MY 2004 Kia Sedona vehicles in salt belt States due to a problem with lower steering column universal joints. On August 28, 2008, ODI upgraded that investigation to an engineering analysis (EA08-017, resume enclosed). An engineering analysis is a more detailed and complete technical analysis of the character and scope of an alleged defect. ODI closed its investigation on July 1, 2009, based on data that shows the alleged defect has a minimal effect on steering effort. In most cases, owners have ample time to take corrective action because the problem is preceded by months or years of noise or increased steering effort. There is no new evidence to support reopening our investigation at this time. For your information, the investigation and recall process can be found on our web site at www-odi.nhtsa.dot.gov/recalls/recallprocess.cfm.



For your information, in October 2008, KIA released a technical service bulletin (TSB No. KT2008101402, summary enclosed) to assist dealers in diagnosing and repairing subject vehicles with owner complaints of increased steering effort. However, the issuance of a TSB does not necessarily reflect the existence of a safety-related defect in accordance with the National Traffic Motor Vehicle Safety Act. Therefore, NHTSA cannot require Kia to perform the corrective action at no cost to you. We suggest you contact your local Kia dealership to see if the remedy described in the TSB will resolve your steering problem.

Should you encounter a safety-related problem with a motor vehicle or motor vehicle equipment in the future, we would appreciate it if you would complete an electronic Vehicle Owner's Questionnaire online at www.nhtsa.dot.gov/ivoq or call the Auto Safety Hotline at 1-888-327-4236. Also, a summary listing of vehicle owners' complaints, safety recalls, manufacturers' service bulletins, etc. can be obtained at www.nhtsa.dot.gov/cars/problems.

Sincerely yours,

A handwritten signature in cursive script that reads "Randy Reid".

Randy Reid, Chief
Correspondence Research Division
Office of Defects Investigation
Enforcement

Enclosures



U.S. Department
of Transportation

**National Highway
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ODI RESUME

Investigation: EA 08-017

Prompted by: PE08-033

Date Opened: 08/28/2008

Date Closed: 07/01/2009

Investigator: Chris Lash

Subject: STEERING INTERMEDIATE SHAFT BINDING

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: KIA MOTORS CORPORATION

Products: 2002-2004 KIA SEDONA IN SALT BELT STATES

Population: 62,634

Problem Description: DRIVER MAY EXPERIENCE HARD STEERING, BINDING OR NOISE WHILE STEERING DUE TO BINDING OF THE LOWER STEERING COLUMN UNIVERSAL JOINT.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	14	120	134
Crashes/Fires:	0	1	1
Injury Incidents:	0	1	1
Number of Injuries:	0	1	1
Fatality Incidents:	0	0	0
Other*:	0	3,757	3,757

*Description of Other: WARRANTY CLAIMS

ACTION / SUMMARY INFORMATION

Action: THIS ENGINEERING ANALYSIS IS CLOSED

Summary:

ODIS ANALYSIS OF WARRANTY DATA SHOWS THAT THE ALLEGED DEFECT HAS OCCURRED AT A RELATIVELY HIGH FREQUENCY IN SALT-BELT STATES (5.9 PERCENT). HOWEVER, THE TESTS CONDUCTED BY ODI AND KIA HAVE SHOWN THAT THE ALLEGED DEFECT HAS A MINIMAL EFFECT ON STEERING EFFORTS. IN ADDITION, ODI INTERVIEWS OF OWNERS WHO EXPERIENCED THE ALLEGED DEFECT SHOWED THAT IN MOST CASES THE PROBLEM WAS PRECEDED BY MONTHS OR YEARS OF NOISE OR A GRADUAL INCREASE IN STEERING EFFORTS AND WAS MORE OF A NUISANCE CONCERN.

THERE HAS BEEN ONE ALLEGATION OF A MINOR CRASH RELATED TO THE ALLEGED DEFECT, INVOLVING A MY 2003 KIA SEDONA WITH 59,900 MILES. THE VEHICLE HAD BEEN CHECKED TWICE IN THE PREVIOUS NINE MONTHS BY A DEALER FOR COMPLAINTS OF "STIFF" STEERING AND THAT THE VEHICLE FELT LIKE IT WAS INTERMITTENTLY LOSING POWER ASSIST. THE CRASH OCCURRED AS THE DRIVER WAS ATTEMPTING TO MAKE A LEFT TURN WHILE TRAVELING AT APPROXIMATELY 20 MILES PER HOUR AND STRUCK A VEHICLE PARKED ON THE RIGHT SIDE OF THE STREET THAT THE VEHICLE WAS TURNING INTO. THE CRASH RESULTED IN MINOR INJURIES TO THE DRIVER. AFTER THE CRASH, IT WAS DETERMINED THAT THE INTERMEDIATE SHAFT WAS EXHIBITING SOME BINDING OF THE STEERING INTERMEDIATE SHAFT BEARINGS. WHILE THE ABSENCE OF ADDITIONAL CRASHES OR INJURIES DOES NOT MEAN THAT THERE IS NOT A SAFETY-RELATED DEFECT, THERE HAVE BEEN NO REPORTED ADDITIONAL CRASHES CAUSED BY THE ALLEGED DEFECT IN THE PAST THREE YEARS. THE RELEASE OF THE TECHNICAL

SERVICE BULLETIN SHOULD ASSIST SERVICE PERSONAL IN DIAGNOSING THIS POTENTIAL PROBLEM LONG BEFORE IT BECOMES POTENTIALLY DANGEROUS.

ACCORDINGLY, THIS INVESTIGATION IS CLOSED. THE CLOSING OF THIS INVESTIGATION DOES NOT CONSTITUTE A FINDING BY NHTSA THAT A SAFETY-RELATED DEFECT DOES NOT EXIST. THE AGENCY WILL CONTINUE TO MONITOR COMPLAINTS AND OTHER INFORMATION RELATING TO THE ALLEGED DEFECT IN THE SUBJECT VEHICLES AND TAKE FURTHER ACTION IN THE FUTURE IF WARRANTED.

FOR ADDITIONAL INFORMATION REGARDING THIS ENGINEERING ANALYSIS REFER TO THE EA08-017 CLOSING REPORT.



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ODI RESUME

Investigation: PE 08-033
Date Opened: 04/28/2008
Investigator: Chris Lash
Subject: STEERING BINDING

Date Closed: 08/28/2008

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: KIA MOTORS CORPORATION
Products: 2002-2004 KIA SEDONA
Population: 154,387

Problem Description: THE DRIVER MAY EXPERIENCE HARD STEERING, STEERING BINDING OR NOISE WHILE STEERING DUE TO BINDING OF THE LOWER STEERING COLUMN UNIVERSAL JOINT.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	6	138	144
Crashes/Fires:	0	1	1
Injury Incidents:	0	1	1
Number of Injuries:	0	1	1
Fatality Incidents:	0	0	0
Other*:	0	3,914	3,914

***Description of Other:** WARRANTY CLAIMS FOR STEERING INTERMEDIATE SHAFT REPLACEMENT.

ACTION / SUMMARY INFORMATION

Action: THIS PRELIMINARY EVALUATION HAS BEEN UPGRADED TO AN ENGINEERING ANALYSIS (EA08-017).

Summary:

ON APRIL 28, 2008, THE OFFICE OF DEFECTS INVESTIGATION (ODI) OPENED PRELIMINARY EVALUATION PE08-033 TO INVESTIGATE COMPLAINTS ALLEGING STEERING BINDING IN MODEL YEAR 2002 THROUGH 2004 KIA SEDONA MINIVANS. KIA'S RESPONSE TO ODI'S REQUEST FOR INFORMATION IN PE08-033 INDICATED THAT CONCERNS WITH BINDING OF THE STEERING INTERMEDIATE SHAFT WERE FIRST IDENTIFIED AND INVESTIGATED IN AUGUST 2002, IN VEHICLES SOLD IN INDONESIA. THIS INVESTIGATION RESULTED IN THE ADDITION OF A STIFFENING RIB TO THE BEARING CAP SEAL. IN JUNE 2003, KIA AGAIN INVESTIGATED OWNER COMPLAINTS OF STEERING NOISE AND HIGHER THAN NORMAL STEERING RESISTANCE AND IN OCTOBER AND NOVEMBER OF 2003 DESIGN CHANGES TO THE SHAFT UNIVERSAL JOINT BEARINGS WERE MADE TO IMPROVE LUBRICANT RETENTION AND ELIMINATE WATER INTRUSION THAT COULD LEAD TO EARLY BEARING FAILURE. ACCORDING TO KIA, THE ALLEGED DEFECT RESULTS IN A PROGRESSIVE CHANGE IN STEERING EFFORT THAT SHOULD BE APPARENT TO THE DRIVER THROUGH NOISE AND GRADUAL CHANGES IN STEERING STIFFNESS LONG BEFORE THE CONDITION COULD BECOME DANGEROUS.

ODI'S ANALYSES OF COMPLAINT AND WARRANTY DATA RELATING TO THE ALLEGED DEFECT SHOW THAT THE CONDITION IS OCCURRING AT SIGNIFICANTLY HIGHER RATES IN SALT-BELT STATES (NOTE: FOR PURPOSES OF THIS INVESTIGATION THE "SALT BELT" INCLUDES CONNECTICUT, DELAWARE, THE DISTRICT OF COLUMBIA, ILLINOIS, INDIANA, IOWA, MAINE, MARYLAND, MASSACHUSETTS, MICHIGAN, MINNESOTA, MISSOURI, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, OHIO, PENNSYLVANIA, RHODE

ISLAND, VERMONT, WEST VIRGINIA AND WISCONSIN). THE WARRANTY RATE FOR REPLACEMENT OF THE STEERING INTERMEDIATE SHAFT IS 5.5% FOR VEHICLES SOLD IN THE SALT BELT AND 0.5% FOR THE REST OF THE UNITED STATES. THE COMPLAINT RATE FOR THE ALLEGED DEFECT IS 186.8 PER 100,000 VEHICLES IN THE SALT BELT AND 29.4 PER 1000,000 VEHICLES FOR THE REST OF THE UNITED STATES. THERE IS ONE ALLEGATION OF A CRASH RELATED TO THE ALLEGED DEFECT. A SUBJECT VEHICLE STRUCK TWO PARKED CARS WHILE ATTEMPTING TO MAKE A LEFT TURN, ALLEGEDLY RESULTING IN MINOR INJURIES TO THE DRIVER.

ODI HAS UPGRADED THIS INVESTIGATION TO AN ENGINEERING ANALYSIS (EA08-017) COVERING MY 2002 THROUGH 2004 KIA SEDONA VEHICLES SOLD OR CURRENTLY REGISTERED IN SALT BELT STATES TO ASSESS THE FREQUENCY AND TREND OF THE ALLEGED DEFECT AND ITS EFFECT ON STEERING EFFORT.

[Select Vehicle](#) | [New TSBs](#) | [Technician's Reference](#)Component Search:

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2004 Kia Truck Sedona V6-3.5L

[Vehicle Level](#) → [Technical Service Bulletins](#) → [All Technical Service Bulletins](#) → [Steering - Increased Low Speed Steering Effort](#) ←**Steering - Increased Low Speed Steering Effort**

Model: Sedona [GQ]

Group: [Steering](#) System(61)

Number: KT2008101402

Date: Tuesday, October 14, 2008

Area: N. America

Subject:

Sedona (GQ) Increased [Steering](#) Effort (Chassis -019)

- Description

**Steering Intermediate Shaft - PN 0K52Y 32550**[Zoom](#)[Sized for Print](#)

In areas where heavy road salt use occurs, customer complaints have identified increased [steering](#) effort and noise (from the steering intermediate shaft) for the 2002-2005 (GQ) Sedona. The increased effort is usually first noticed at low speeds with noise or rattle. When addressing

such customer concerns, replace the steering intermediate shaft using part number 0K52Y 32550 pursuant to the instructions in this TSB.

- Effective Vehicle Information

All 2002 - 2005 Sedona (GQ)

- Parts Information

REQUIRED PART:

0K52Y 32550 Steering Intermediate Shaft

(Used Only When Necessary: 11233 08301 Pinch Bolt)

REQUIRED TOOL:

Steering Wheel Holding Device Commercially Available Not SST

- Service Procedure

Steering Intermediate Shaft Removal



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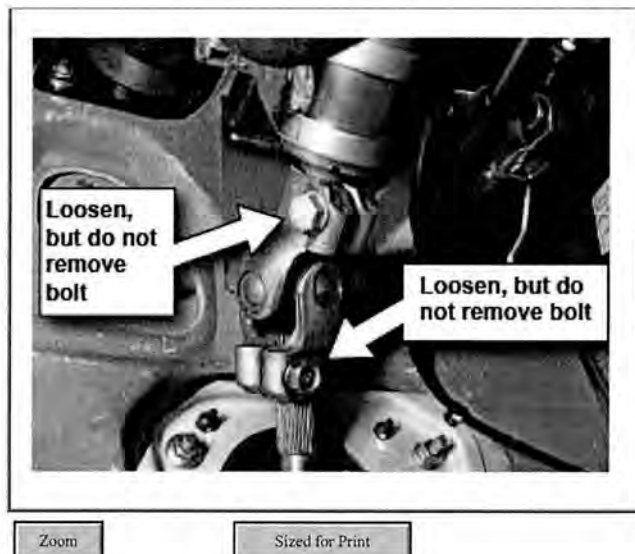
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1. Before beginning any work, road test the vehicle to confirm the customer concern. During the road test, take note if the steering wheel is centered while driving straight ahead.

***NOTICE** Make note on the repair order of any steering wheel that is off-center (and approximate number of degrees left or right) before beginning your repair. Any pre-existing alignment condition needs to be addressed separately with the customer before beginning work, and is not included as part of this repair.

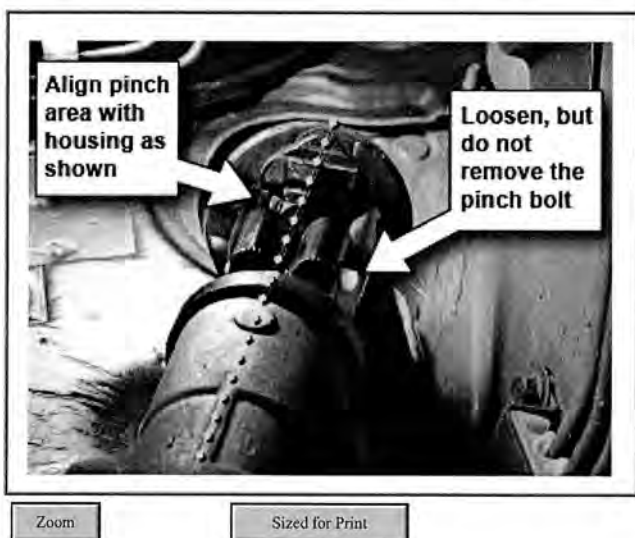
2. Unlock the steering column with the ignition key and leave unlocked throughout this repair.





Underneath the dash, LOOSEN, BUT DO NOT REMOVE the two upper joint pinch bolts that attach to the steering column and intermediate shaft.

***NOTICE** The pinch bolts should still grasp the shaft tight enough that no play is felt.



3. Raise the vehicle on a lift. LOOSEN, BUT DO NOT REMOVE the lower intermediate shaft pinch bolt.

With the wheels pointing straight ahead, center the pinch area of the lower intermediate shaft joint on the raised rib and/or circular reference point of the steering rack housing. You may need to clean and re-mark this area with a paint marker (as necessary) for reference.

4. Lower the vehicle so the tires firmly contact the floor.





Zoom

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WITHOUT MOVING THE STEERING WHEEL, carefully install a commercially available steering wheel holding device, as shown in photo.

***NOTICE** For any number of reasons the steering wheel may no longer be centered once the lower intermediate shaft joint is aligned to the steering rack as outlined in step 3. The steering wheel must be locked in the position resulting from alignment of the lower intermediate shaft joint to the steering rack, and may not necessarily be centered.

!WARNING DO NOT ALLOW the steering wheel to spin freely while replacing the steering intermediate shaft. This may cause damage to the clock spring, and will effect centering of the steering wheel after the repair.

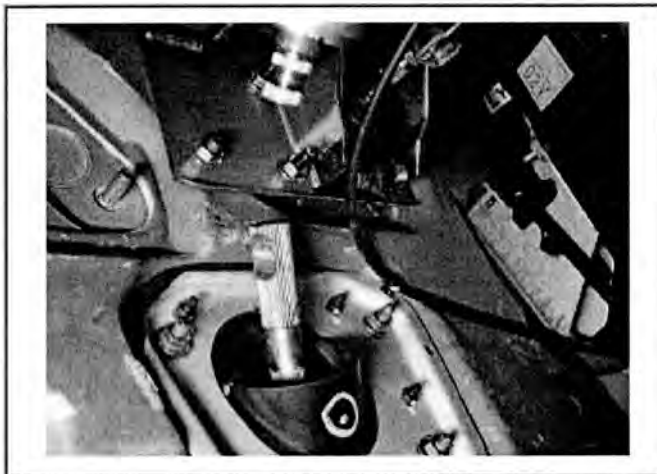


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5. Completely remove the previously loosened upper intermediate shaft joint bolts. Slide the joint down onto the splines of the intermediate shaft, which will allow the joint to be removed from the bottom of the steering column shaft as shown.

***NOTICE** Do NOT allow either the steering wheel and/or intermediate shaft to turn.



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Remove the upper intermediate shaft joint from the intermediate shaft and set aside for later reinstallation.

***NOTICE** Do NOT allow either the steering wheel and or intermediate shaft to turn.



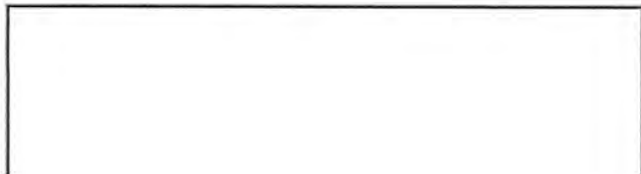
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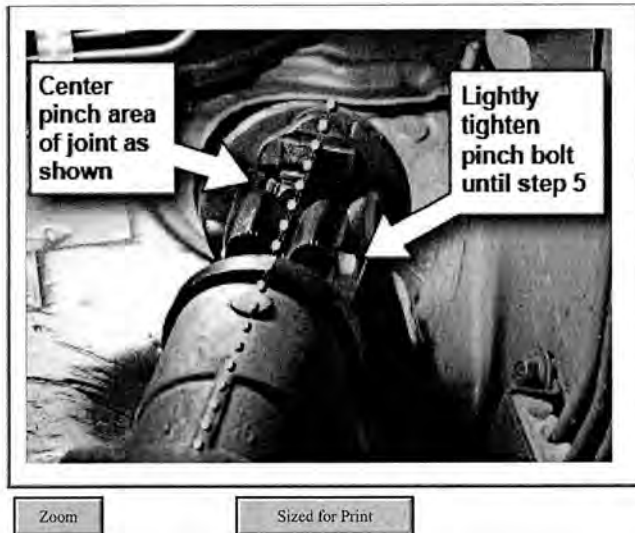
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6. Raise the vehicle on the lift. Remove the previously loosened pinch bolt from the lower intermediate shaft joint, and then remove the intermediate shaft from the steering gear shaft as shown in the photo.

***NOTICE** Do NOT allow the joint to turn when removing the bolt and/or intermediate shaft.

Steering Intermediate Shaft Reinstallation

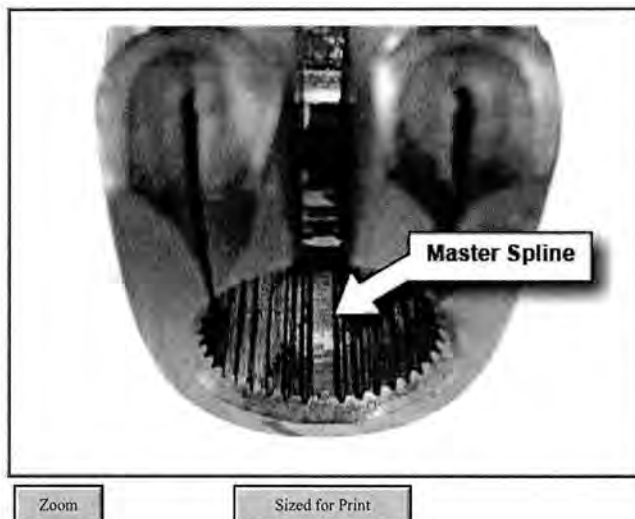




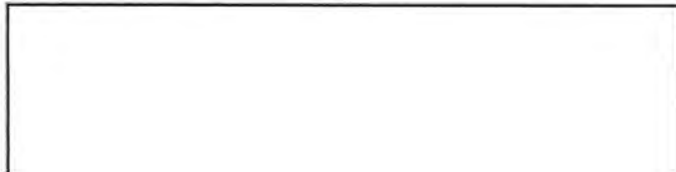
1. Install the new intermediate shaft, aligning the pinched area of the lower joint with the raised rib and/or circular reference point of the steering gear housing. Lightly tighten the pinch bolt making sure not to rotate the steering gear shaft.

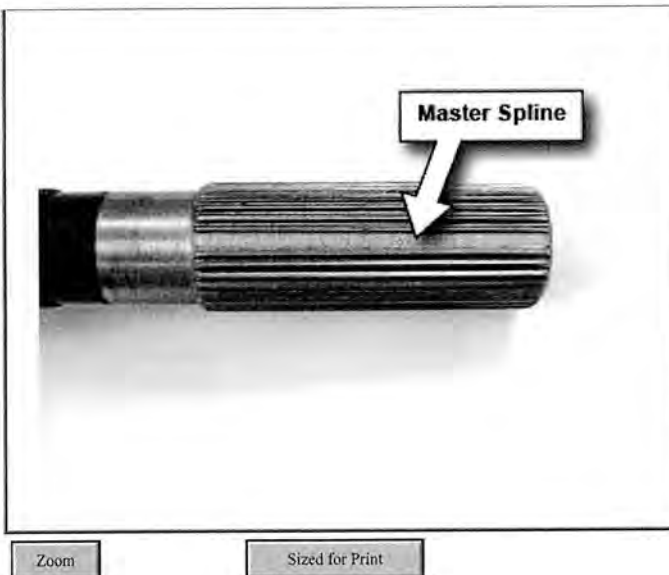
***NOTICE** Do not fully tighten this pinch bolt until step 5 of the reinstallation procedure.

Lower the vehicle so the tires firmly contact the floor.

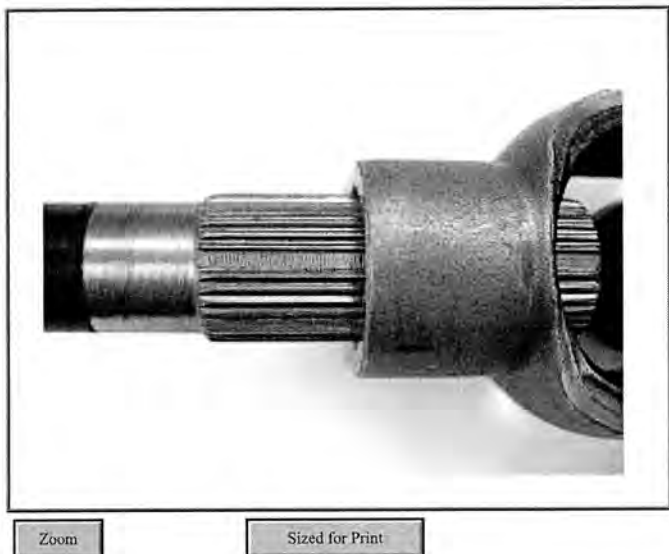


- 2a. **IMPORTANT:** The shaft's upper joint has a master spline on its lower joint section that assures proper phasing of the two joints of the intermediate shaft. Note that the upper section of the joint does not have a master spline.

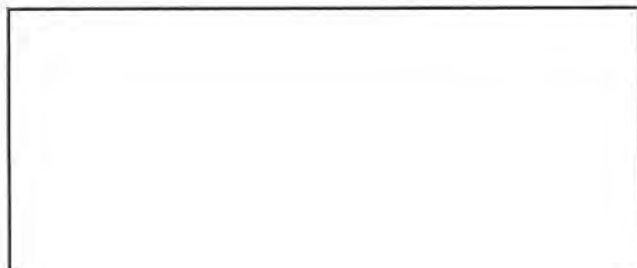


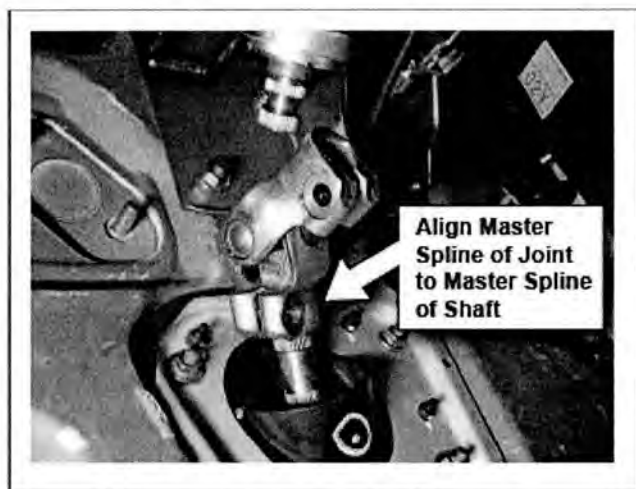


- 2b. **IMPORTANT:** The intermediate shaft has a master spline that assures proper phasing of the two joints of the intermediate shaft.



- 2c. **IMPORTANT:** The upper joint master spline must be aligned with intermediate shaft master spline as shown to assures proper phasing of the two joints of the intermediate shaft. Only the bottom section of the upper joint has a master spline.

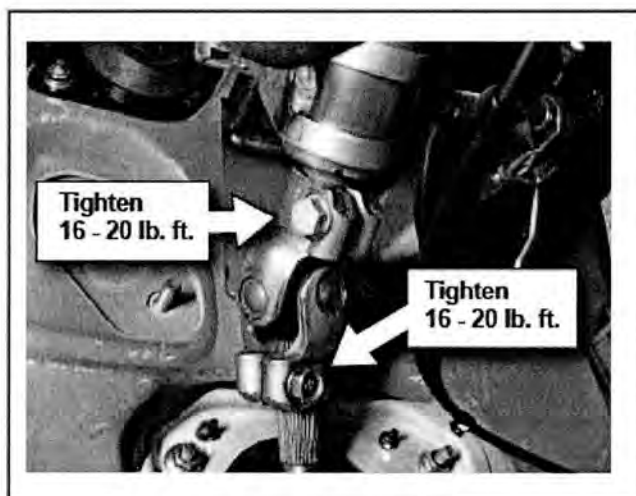




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3. Under the dash, reinstall the previously removed intermediate shaft upper joint, paying close attention to the master spline alignment between the joints lower section and intermediate shaft.

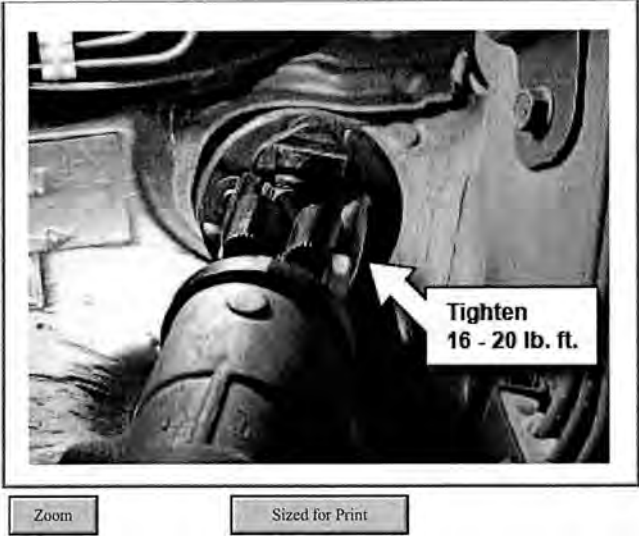


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4. Fully install and tighten the upper intermediate shaft joint: 16 - 20 lb. ft.





- 5. Raise the vehicle and fully tighten the joint at the steering gear shaft: 16 - 20 lb. ft.
- 6. Lower the vehicle and remove the steering wheel holding device. Road test the vehicle to assure the customer concern has been addressed.

Additionally check that the steering wheel is still aligned as before the intermediate shaft replacement.

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Time	Related Parts	Qty.
W	0K52Y 32550	1	N29	C11	Intermediate Shaft, R&R	32090R00	0.6	N/A	0

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WARRANTY CLAIM INFORMATION: