



HYUNDAI | NEW THINKING.
NEW POSSIBILITIES.

Technical Service Bulletin

GROUP	NUMBER
CAMPAIGN	11-01-020
DATE	MODEL
JUNE, 2011	SANTA FE (CM)

SUBJECT INTERMEDIATE SHAFT REPLACEMENT (CAMPAIGN 102)

★ IMPORTANT

*** Dealer Stock and Retail Vehicles ***

As required by federal law, dealers must not deliver new vehicles for sale or for lease to customers until all open recalls have been performed. Dealers must also perform all open recalls on used vehicles, demo and rental vehicles prior to placing them into customer use and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the service department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open campaigns.

DESCRIPTION:

This bulletin provides a procedure to replace the intermediate shaft on some 2010 Santa Fe (CM) 2.4L 2WD vehicles with automatic transmissions.

Applicable Vehicles:

Model : 2010 Santa Fe (CM) with 2.4L engines and automatic transmissions (2WD only)
Applicable vehicle production date range: From October 15, 2009 through March 5, 2010

Parts Information:

Part Name	Part Number	Qty.	Remark
Axle Shaft Repair Kit	49560 2PA00 QQH	1	Includes intermediate shaft, axle seals and side output gear
McLube MoS2-400 grease	00232-19048	1.5~2.5 g	Use 1.5~2.5 grams per axle
SPH-IV ATF	00232-19045	6 quart	

Warranty Information:

OP Code	OP NAME	OP Time
11BA14R0	Intermediate shaft and differential side gear replacement (2WD)	5.2 M/H

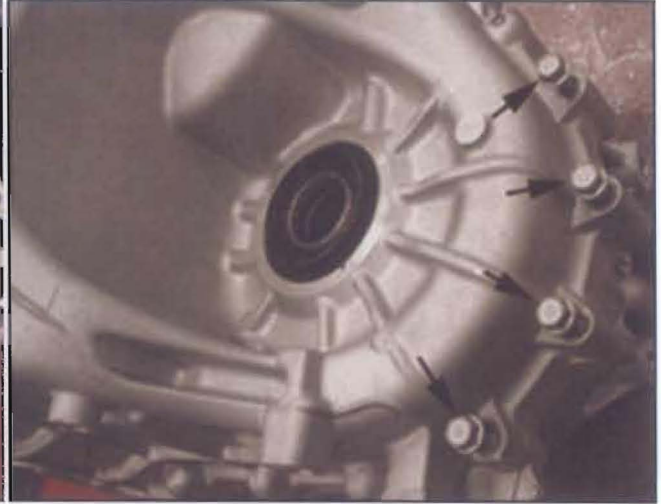
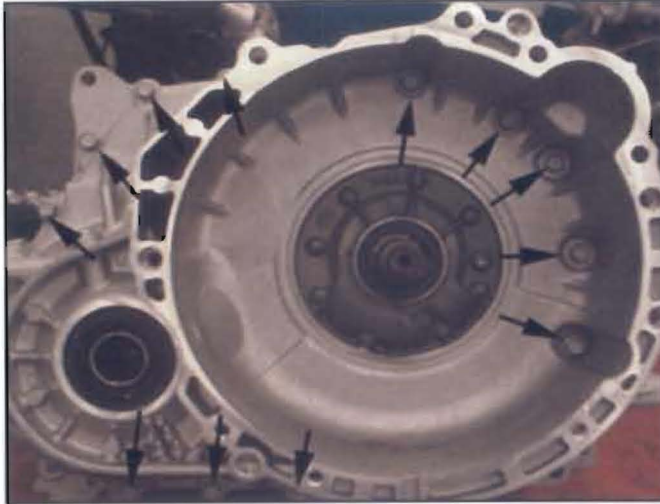
NOTE: Submit claim on Campaign Claim Entry Screen

NOTE: \$3.00 per claim will be automatically reimbursed on the campaign claim for the axle spline lubrication.

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

Service Procedure:

1. Drain the automatic transaxle fluid.
2. Remove the transaxle assembly according to the 2010 Santa Fe shop manual.
3. Remove the torque converter.
4. Remove the bolts on both sides of the case as shown.



5. Use a rubber or plastic hammer to loosen the converter housing from the transaxle case. Remove the case half.

**CAUTION**

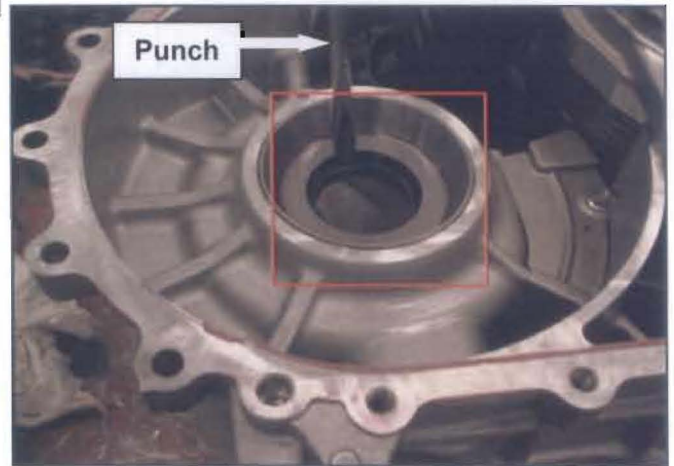
Do not use a screwdriver to separate the case as this will damage the case.



6. Use a punch to remove the output shaft oil seal from the transmission housing.

CAUTION

Do not damage the flat washer during removal.



7. Remove the differential assembly by tilting up as shown.

Use a punch to remove the second oil seal from the case located under the ring gear assembly.

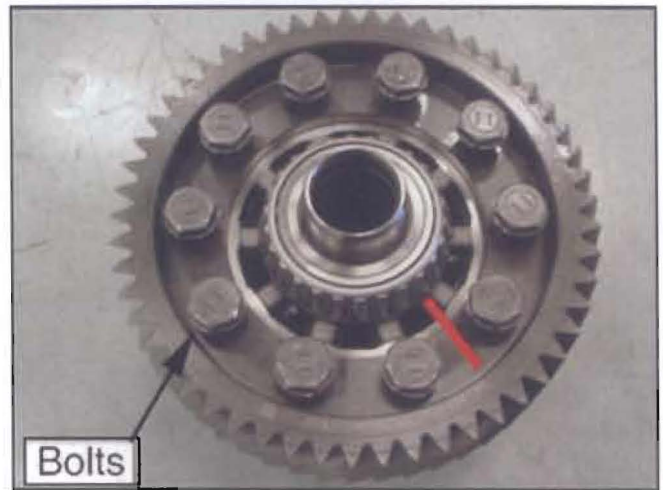


8. Put the differential housing in a vise. Align the flat in the differential housing to the vise and clamp firmly. Do not over-tighten the vise.

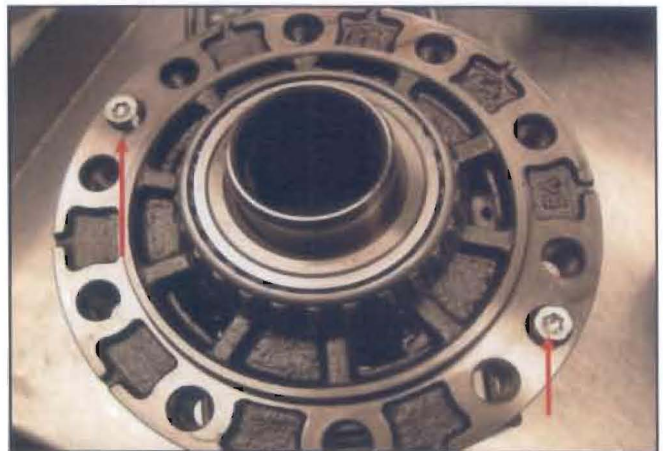


9. Make an alignment mark on the ring gear to align the housing.

Remove the 10 bolts holding the differential ring gear to the differential housing and remove the differential gear.



10. Use an impact driver with T30 Torx or philips driver to remove the two bolts that secure the differential housing cover to the differential housing.



11. Remove the differential from the vise and separate the differential into two parts using a flat head screwdriver.

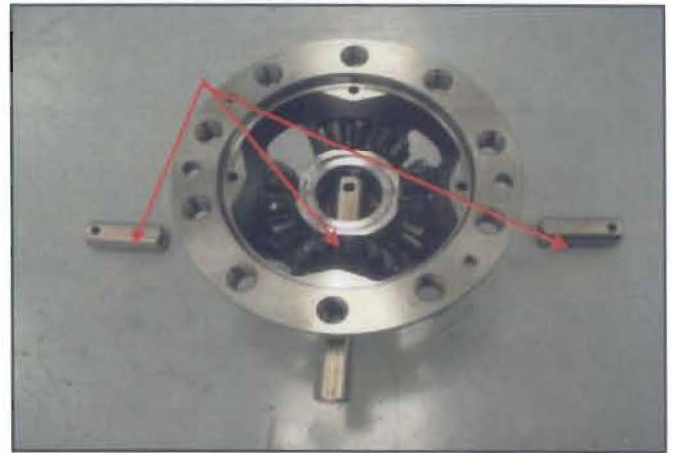
The driver side output gear and o-ring do not need to be replaced.



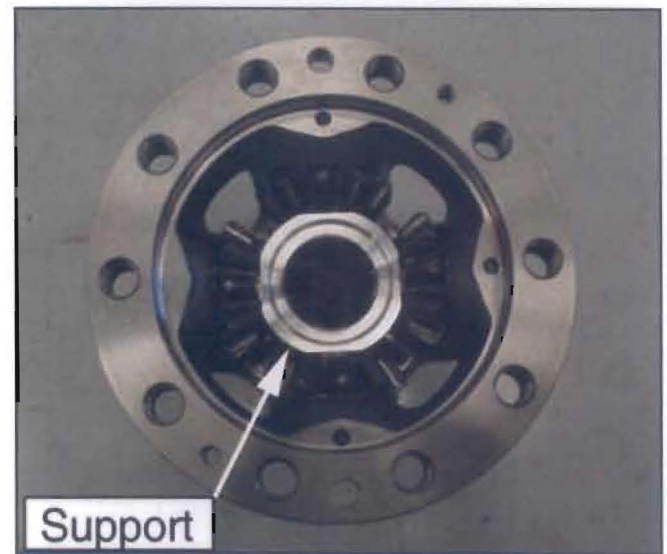
12. Turn the differential case upside down to remove the 3 pins that hold the pinion shafts in the differential case.



13. Remove the 3 pinion shafts from the differential case.

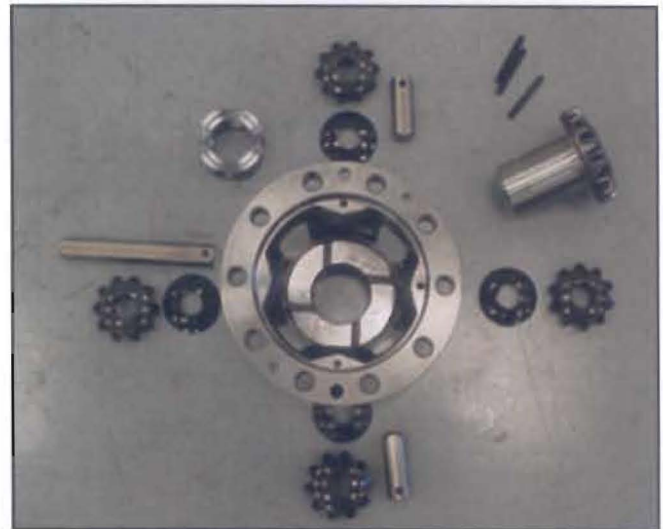


14. Remove the pinion shaft support.



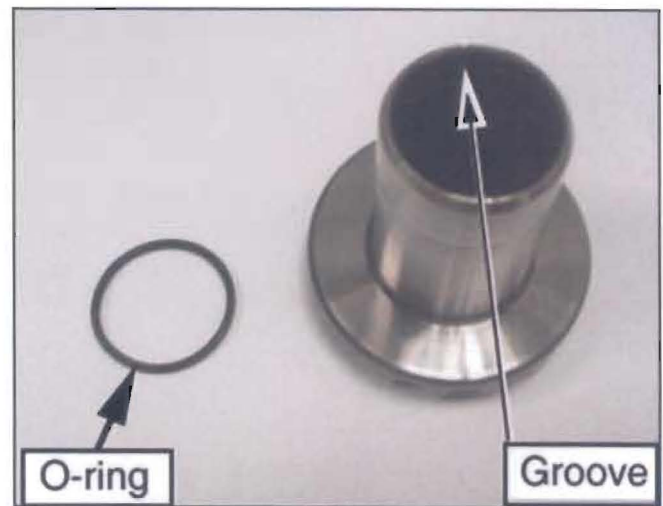
15. Remove the pinion gears and passenger side output gear.

Lay out the pieces as shown. Do not mix the parts.

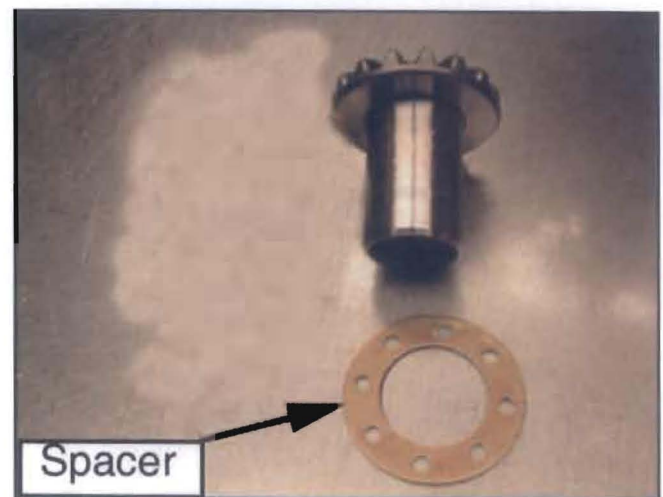


Assembly and Installation

16. Apply McLube MoS2-400 grease to the new O-ring (included in the kit), and install into the inner groove of the new passenger side output gear.

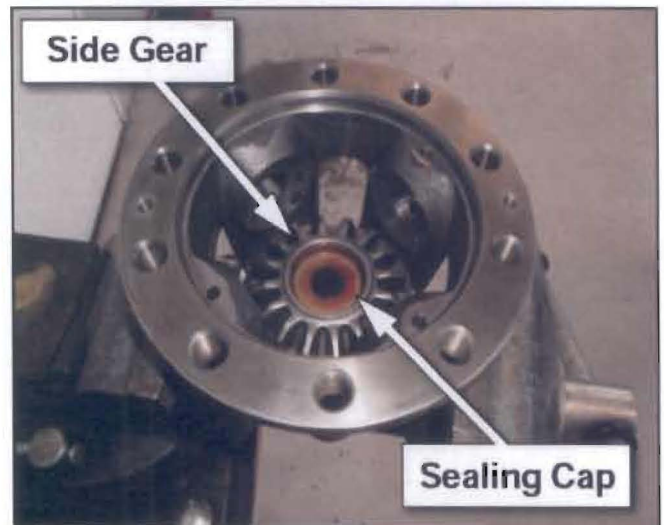


17. Install the old spacer on the new passenger side output gear.



18. Place the differential case in a vise and install the new output side gear and the spacer.

Confirm the sealing cap is installed.



19. Install the original washers onto the pinion gears.

*** NOTE**

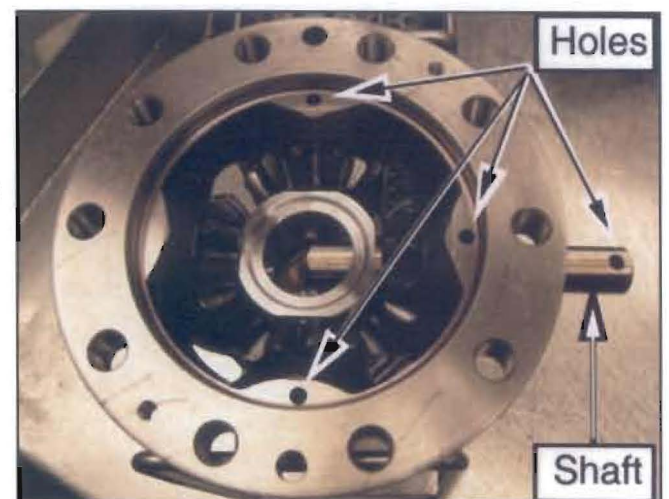
The washers are slotted to align with the pinion shafts.



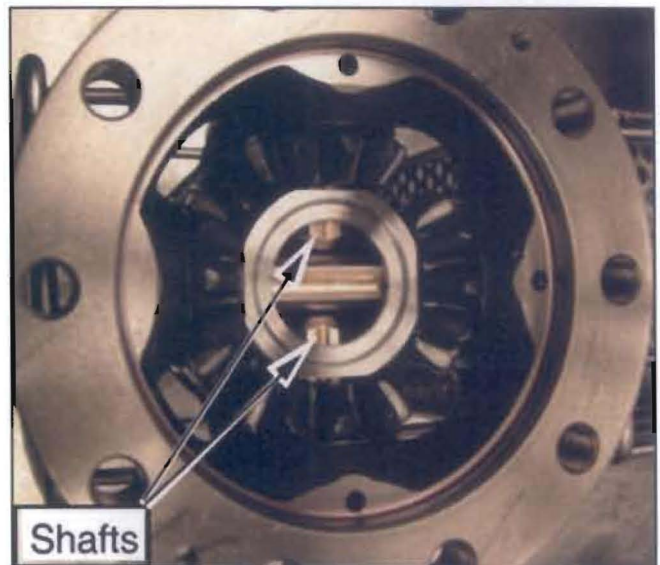
20. Install the 4 pinion gears and washers in the differential case.

Insert the pinion support.

Install the long pinion shaft in the differential case as shown.



21. Install the short pinion shafts in the differential case.



22. Install the 3 locking pins to hold the shafts in place.



23. Confirm the old spacer is installed on the old driver side output gear.

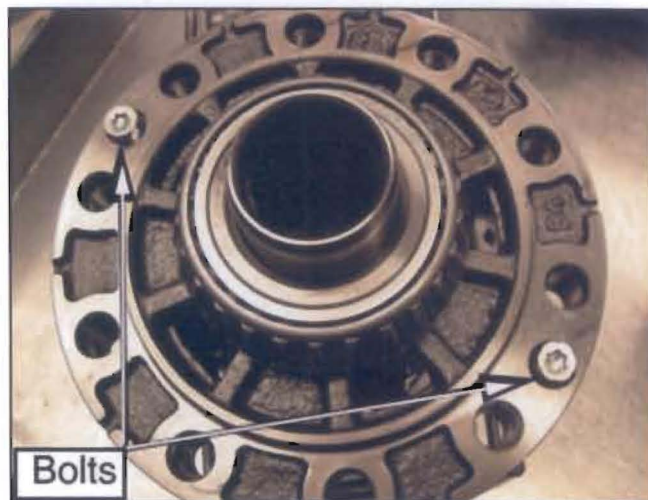
Confirm the old o-ring is installed on the inside of the output gear. If the o-ring is damaged, install a new o-ring, P/N 45838-3B000.

Install the old driver side gear and spacer in the cover.



24. Install the differential cover on the differential case and install the 2 bolts. Torque the bolts to the specification.

Tightening Torque: 8 lb-ft (10.8 Nm)



25. Assemble the ring gear to the differential case.

Install the bolts and torque to specification in a star pattern.

Tightening Torque:
94~101 lb-ft (130~140 Nm)

★ NOTE

The shiny surface of the gear must face the differential case.



26. Tilt the differential assembly and install in the case.

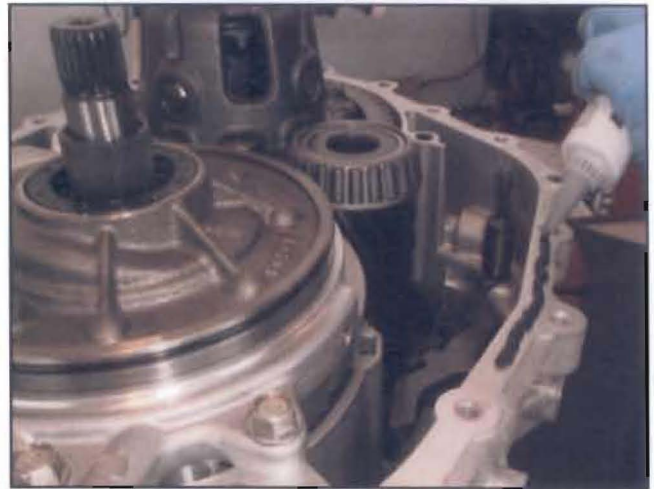


27. Use a scraper to remove the old sealant from both cases. Do not use a rotary brush and power tool.

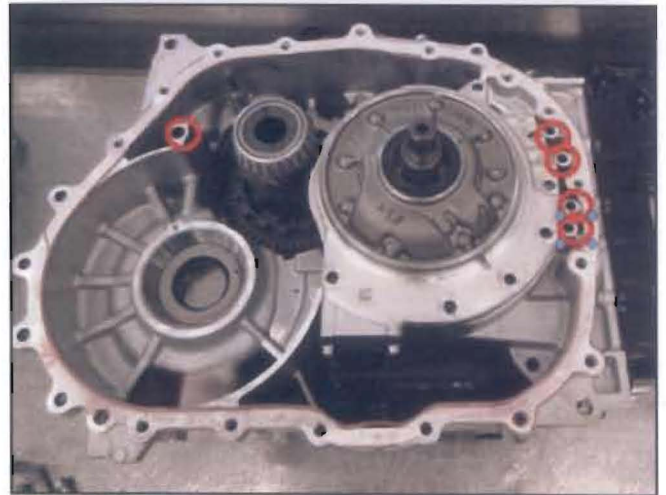
Wipe the surfaces with brake clean to remove the oil film.

**CAUTION**

Be careful not to allow any sealant inside the case.



28. Confirm the o-rings are seated in the locations shown by the red circles.

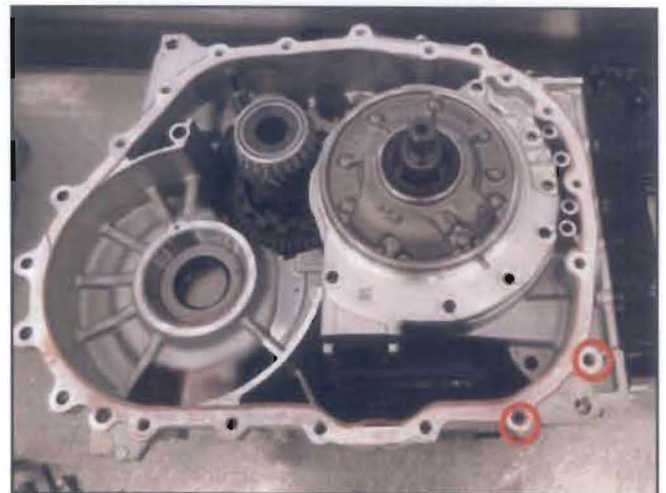


29. Apply Permatex Ultra Gray Gasket Sealant or Hyundai sealant, P/N 00232-19039, to the mating surfaces of the transaxle case using a bead that is 1 mm wide.

Apply sealant around the bolt holes shown in red.

**CAUTION**

Apply sealant in a 1 mm wide bead.
Excessive sealant can restrict oil flow.



30. Install the converter case.

Install the bolts to the transaxle case and tighten the bolts to specification.

Tightening Torque:
31~40 lb-ft (42~54 Nm)



31. Passenger side axle seal installation:

- Install the replacement axle seal using:
- Oil seal installer, P/N 09453-3L240
 - (To be shipped to dealers by 7/30/2011)
 - Installer handle, P/N 09231-H1100

*** NOTE**

The Axle seal must be 1~1.3mm below the case surface.



32. Driver Side axle seal installation:

- Install the replacement axle seal using:
- Oil seal installer, P/N 09453-3L240
 - (To be shipped to dealers by 7/30/2011)
 - Installer handle, P/N 09231-H1100

*** NOTE**

The Axle seal must be 1~1.3mm below the case surface.

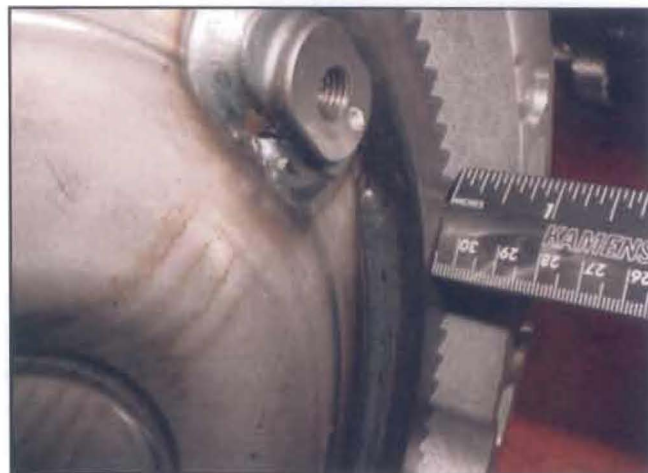


33. Rotate the converter while pushing inward and upward until the converter is fully seated within the case.

Depth: 9/16~5/8" (14-16mm)

**CAUTION**

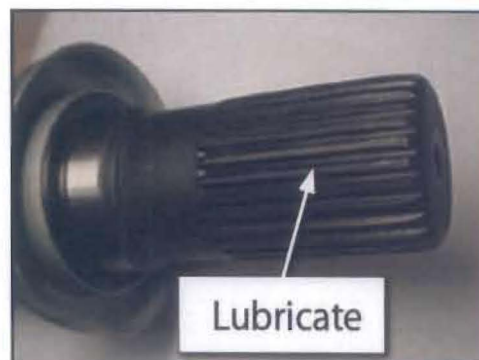
Oil pump damage can occur if the torque converter is not installed properly.



34. Install the transaxle in the reverse order of removal.

Intermediate Shaft Replacement

35. Apply a light coating of McLube MoS2-400 grease, P/N 00232-19048, to the splines on the intermediate shaft.



36. Apply a light coating of McLube MoS2-400 grease, P/N 00232-19048, to the splines on the passenger side output gears in the transmission.



37. Transfer the heat shield to the new intermediate shaft.
38. Install the intermediate shafts according to the 2010 Santa Fe shop manual.
39. Add ethylene glycol engine coolant to the radiator as needed. Check the level according to the Santa Fe Shop Manual, "Engine" section.

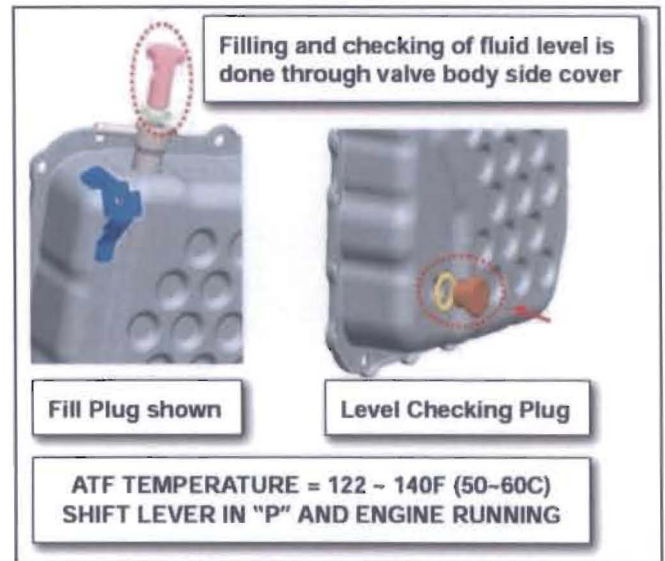
40. Remove the transaxle fill plug.

Use a funnel to add approximately 5~6 quarts of SPH-IV ATF through the fill plug opening. Reinstall the fill plug.

Attach the GDS to the DLC and select vehicle, A/T menu, Current Data and "Oil Temperature Sensor".

Start the engine and shift to Park. When the ATF is 122°F~140°F (50~60°C), remove the level checking plug. The level is correct when oil flows out of the level checking plug in a thin steady stream.

NOTE: Collect and dispose of any excess fluid in accordance with local regulations.



41. Drive the vehicle to confirm the correct operation of the transaxle and the differential gears.