 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP TRANSFER CASE	NUMBER 15-TC-001
	DATE AUGUST 2015	MODEL(S) TUCSON (LM)
SUBJECT: 4WD COUPLER ASSEMBLY ACTUATOR MOTOR REPLACEMENT DTC P1820, P1821, P1822, P1823 & P1824		

Description: This bulletin contains information on the Tucson (LM) 4WD Coupling Assembly components that can be replaced separately as service parts. Do not replace the 4WD Coupler Assembly for the DTC's listed below. Follow this repair procedure and replace the Coupling Actuator Motor and Harness 4WD Coupling only.

DTC	Description
P1820	Pump for 4WD motor high overcurrent detected
P1821	Pump for 4WD motor wire short to battery
P1822	Pump for 4WD motor wire open load
P1823	Pump for 4WD motor wire short to ground
P1824	Pump for 4WD slow thermal overload

Applicable Vehicles: 2010-2015 4WD Tucson (LM)

Parts Information:

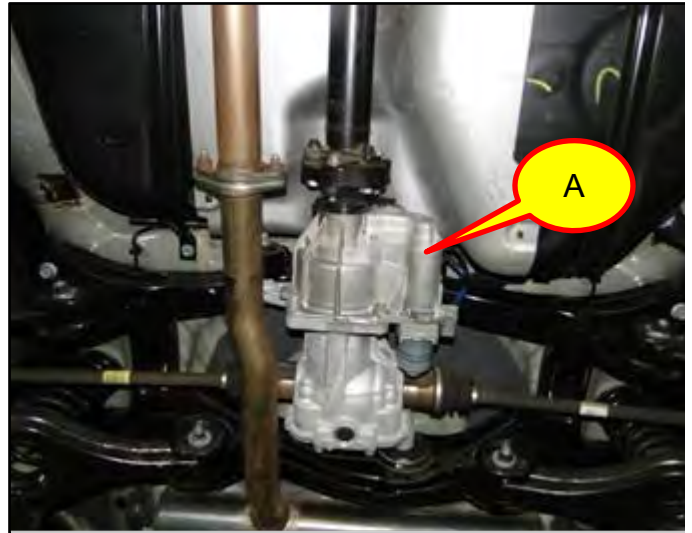
Part Name	Before	After	Qty.
Actuator Motor	478103B500	478103B520	1
Harness 4WD Coupling (Vehicles built before February 7, 2013)	478913B110	478913B310	1

Warranty Information:

Normal warranty applies.

Service Procedure:

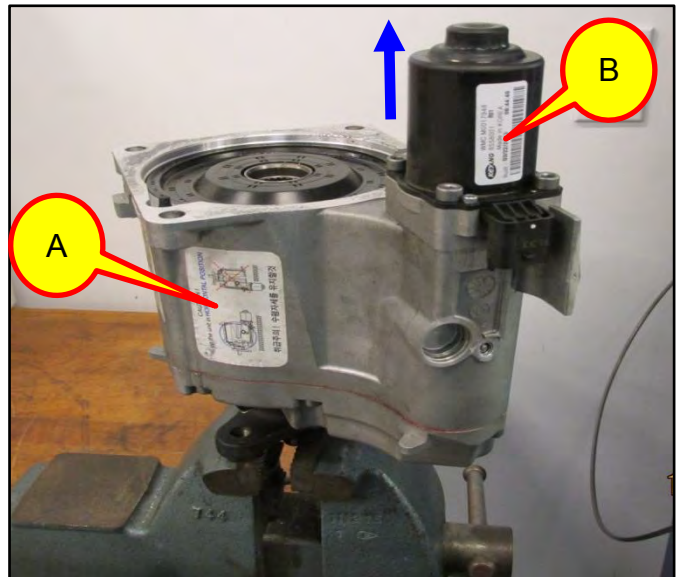
1. Remove the 4WD coupling assembly (A) from the vehicle following the applicable service shop manual.



CAUTION

The 4WD coupling assembly must be removed from the vehicle before the actuator motor can be replaced to avoid oil spillage.

2. Securely clamp the 4WD coupling assembly (A) in a bench vise with the actuator motor (B) in the up position.



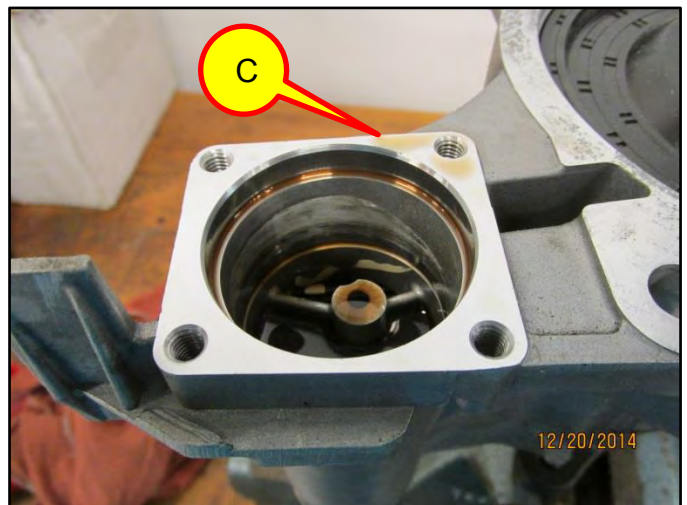
CAUTION

The actuator motor must be in the upright position before removal to avoid oil spillage.

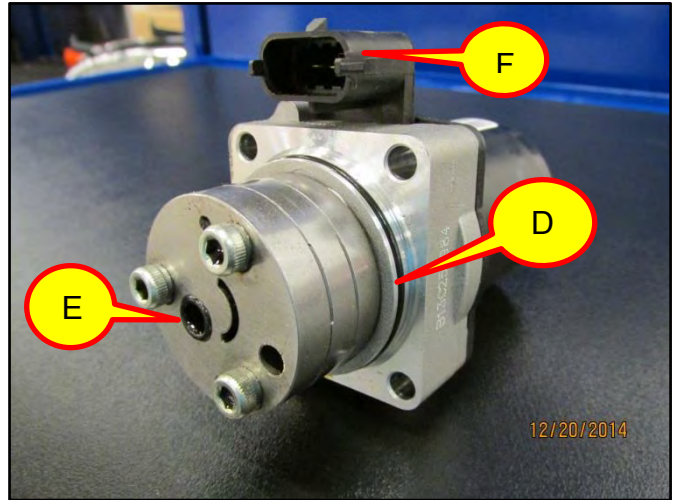
CAUTION

Before removal of the actuator motor allow 20-30 seconds to drain any residual oil from the actuator motor.

3. Remove the actuator motor (B) taking care not to spill any oil from the coupler.
4. Using a clean lint free cloth wipe any oil residue and debris from the surface (C) of the coupling housing.



- Verify the O-ring seals (D and E) are in place and undamaged on the replacement actuator motor.

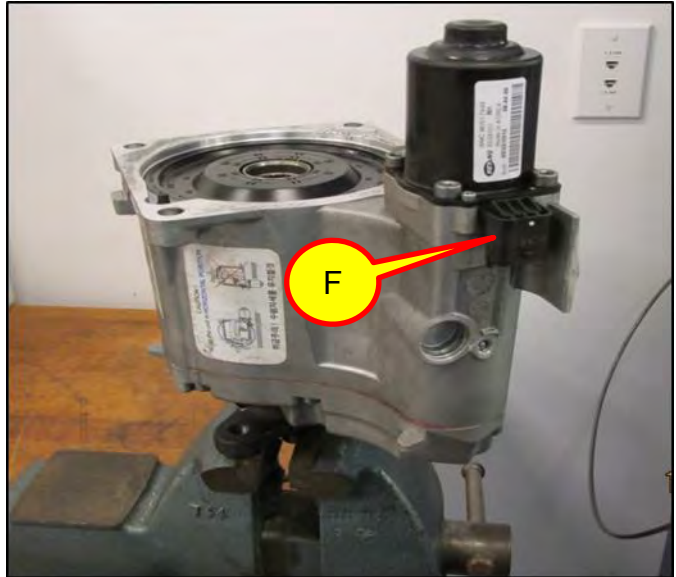


- Install the replacement actuator motor making sure the connector (F) is to the outside of the 4WD coupling assembly.

Torque:
8.8-10.8 Nm (0.9-1.1kgfm, 6.5-8.0lb-ft)

⚠ CAUTION

If the actuator motor is not installed with the connector to the outside of the 4WD coupling assembly, the oil passages will not align properly.



- Weigh the reassembled 4WD coupling assembly, to confirm oil capacity, by using a shipping scale.

Coupling assembly weight:
8.05-8.23kg (17.75-18.14lb)

⚠ CAUTION

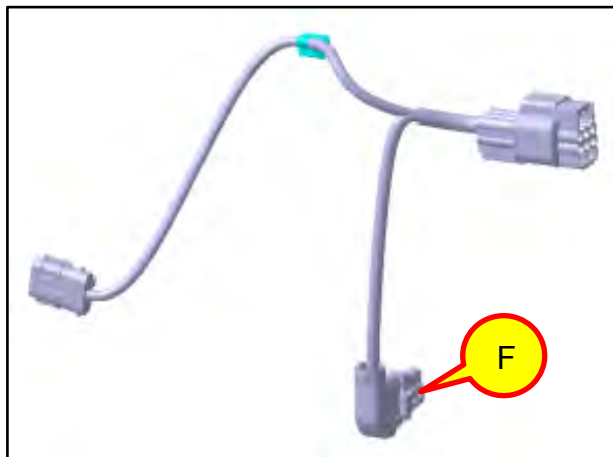
If more than 30ml of oil has spilled and the coupling assembly does not weigh the specified amount, then it will have to be replaced.



8. Replace the 4WD coupling harness if the vehicle is built before February 7, 2013.

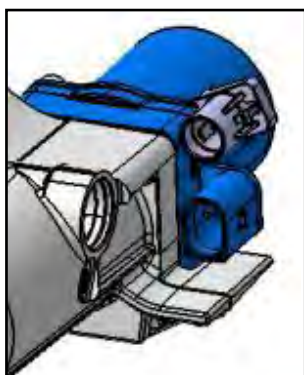
NOTICE

Vehicles built after February 7, 2013 do not require the 4WD connector harness to be replaced.

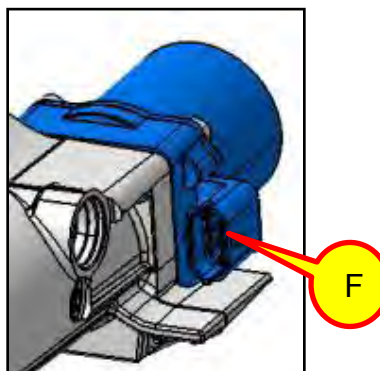


Vehicle Production Date	Part Description	Old Part Number	New Part Number
Before February 7, 2013	One: 2 pin connector and one: 1 pin connector	478913B110	478913B310

Before February 7, 2013
2 pin + 1 pin connector



Updated Actuator Motor
3 pin connector



NOTICE

Use a small amount of extreme pressure (EP) grease to lube the splines before installing the 4WD coupling assembly. Use caution not to damage the seals.

9. Install the 4WD coupling assembly into the vehicle following the applicable shop manual.

Torque:**58.8-63.7N m (6.0-6.5kgfm, 43.4-47.0lb-ft)**

10. Test drive vehicle to confirm proper operation of the 4WD coupling assembly.
11. Check for Diagnostic Trouble Codes and erase any DTC.
12. Erase any DTC's in the BlueLink sytem according to TSB 12-BE-005-2.