



## SAFETY RECALL 17V-105 (TC 2017-088)

### DEALER INVENTORY WITH BODY AND CREW CABS AUTOMATIC TRANSMISSION MOUNTING BRACKET INSPECTION PROCEDURE

#### AFFECTED VEHICLES

- 2015-2017MY N-Series Vehicles With Bodies Equipped with 4HK1 Diesel Engines (including Crew Cabs) and Produced Between 8/1/2014 and 5/18/2016

#### SERVICE INFORMATION

Isuzu Motors Limited has decided that a safety related defect exists in certain 2015-2017MY N-Series Vehicles equipped with 4HK1 Diesel Engines and Produced Between 8/1/2014 and 5/18/2016.

The following service procedure applies **ONLY TO AFFECTED VEHICLES IN DEALER INVENTORY** that are equipped with bodies and crew cabs. Dealers should complete this procedure and submit claims for reimbursement as soon as possible.

**NOTE: Dealers are to confirm vehicle eligibility prior to beginning repairs by using the Isuzu Vehicle Inquiry System (IVIS). Not all vehicles may be involved.**

This document sets forth two methods for completing the inspection process of the Automatic Transmission Bracket (with Body); the primary method utilizes paint markings; a secondary method utilizes a digital angle gauge (for instance, a Brownline Digital Angle Gauge). In Step 8 of this inspection procedure you will have the option to choose one method or the other. Dealer technicians should choose the most appropriate option based each vehicle's final upfit and the clearance available to complete the inspection.

#### INSPECTION PROCEDURE

1. Ensure there is enough space between the lowest portion of the body floor and the transmission cross-member (Figure 1). At least 127 mm (5") is required to accurately perform the inspection. Make sure the area under the vehicle is well lit.
  - a. If the vehicle has a body with a hinged joint or a hydraulic mechanism to shift the body (e.g. a dump bed or a roll-off tow vehicle), move the body accordingly to access the cross-member. Make sure the moved body is secured in place before continuing with this procedure and then set the Parking Brake. Go to Step 6.

- b. For other affected vehicles, if there is at least 5 inches of clearance between the cross member and the body, or the vehicle is a crew cab, there is sufficient clearance to perform the inspection. Continue to Step 2.
- c. If there is less than 5 inches of clearance between the cross member and the body, this inspection cannot be completed and shims will need to be installed when they become available. **Hold this vehicle in Dealer Inventory until Campaign parts and additional repair information becomes available** and proceed directly to the Claim Information section.



Figure 1

- 2. Block the wheels. Ensure the vehicle will not move while performing the procedure.
- 3. Place a match mark on the propeller shaft and parking brake drum using a marker or paint pen (Figure 2).



Figure 2

- 4. Remove the four (4) nuts and washers that attach the propeller shaft to the transmission output flange.

5. Remove the four (4) bolts that attach the center bearing bracket (if equipped) to the cross-member (Figure 3) and disconnect the propeller shaft from the transmission output flange. Lay the propeller shaft assembly aside underneath the SCR assembly (Figure 4).

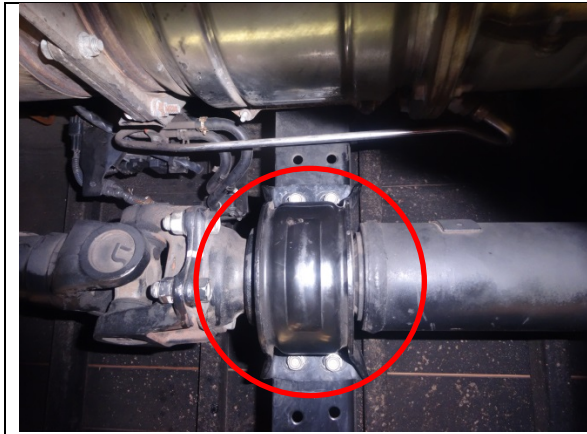


Figure 3



Figure 4

6. Remove the two (2) 14mm nuts that hold on the DEF line bracket (Figure 5). Move the DEF line bracket assembly back out of the way (Figure 6).



Figure 5



Figure 6

7. Thoroughly clean the area surrounding the four (4) transmission mounting locations (Figure 7).
8. Determine which procedure will be used to complete the inspection.
  - a. If you have the Brownline digital angle gauge or an equivalent, you may proceed to Step 12.
  - b. If you do not have a digital angle gauge, continue to Step 9.
9. Put a paint mark on each nut and the frame cross-member to mark the original position of each nut (Figures 7 and 8). Use an inspection mirror to assist in marking the front nuts.

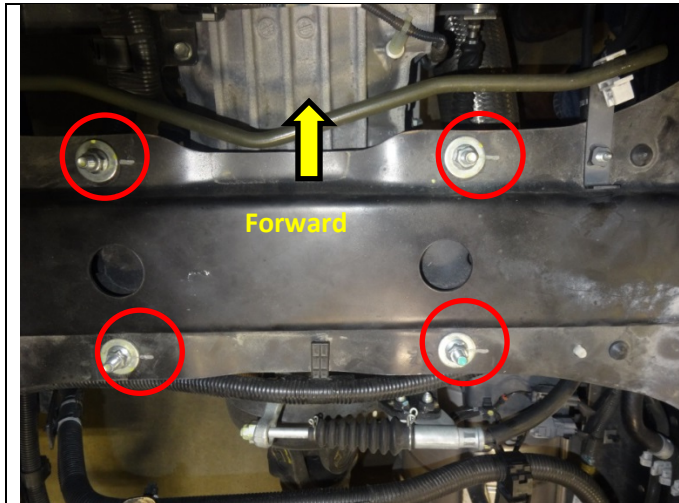


Figure 7



Figure 8

10. Loosen one mounting nut 90° and then tighten the nut to 30.0 Nm (22.1 ft/lbs). Perform this procedure for all four (4) nuts.

**IMPORTANT: Tighten to exactly 30.0 Nm (22.1 ft/lbs). DO NOT tighten beyond 30.0 Nm (22.1 ft/lbs).**

11. Check **each** nut to see if the paint mark on that nut is within the 90° loosening arc after torquing (Figures 9 and 10). Use an inspection mirror as necessary:

- a. If the paint mark on all four nuts stays within the 90° arc (as shown in Figure 9), the vehicle **passes** inspection. Proceed to Step 16.

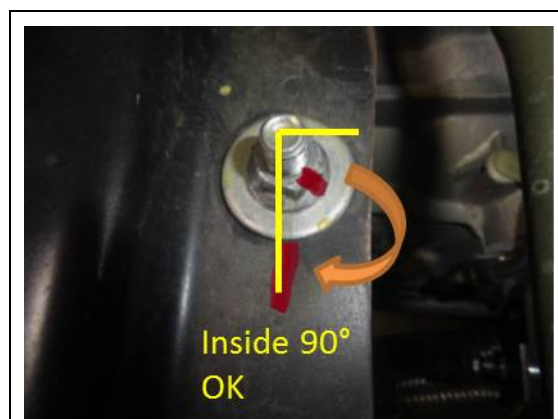
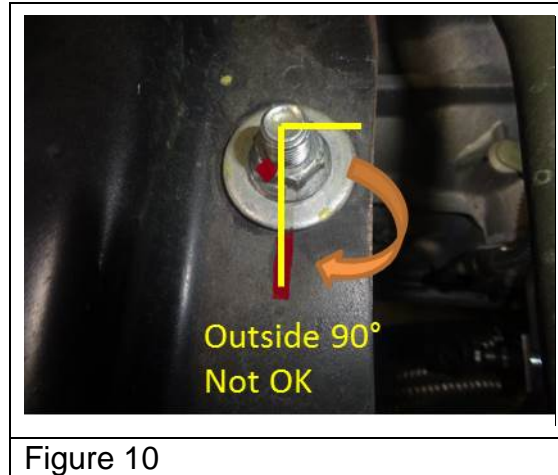


Figure 9

- b. If the paint mark on any of the nuts is not within the 90° arc (as shown in Figure 10), the vehicle does **not pass** inspection. **Hold this vehicle in Dealer Inventory until Campaign parts and additional repair information becomes available.** Proceed to Step 17.



## INSPECTION USING A DIGITAL ANGLE GAUGE

**NOTE: If a digital angle gauge is to be used, it must be able to measure at least 90° and work in both a clockwise and counter-clockwise fashion. A non-flex head 3/8” torque wrench must be used in conjunction with a digital torque angle gauge.**

12. Set the torque wrench to 30.0 Nm (22.1 ft/lbs). Attach a 14mm deep socket. Set the ratchet head on the torque wrench to loosen. Set the digital torque angle gauge to measure 90° and attach it to the torque wrench where the gauge number display can be viewed while performing the procedure.
13. Place the torque wrench on a bracket nut and put a slight amount of loosening pressure on the wrench to take up any excess play. Press the “select” button on the angle gauge and loosen the nut until 90° has been reached (by readout or tone). Turn the ratchet head on the torque wrench to tighten. Place a slight amount of tightening pressure on the torque wrench to take up any excess play, but not enough to turn the nut. Press the “select” button on the angle gauge and slowly tighten the nut until the torque wrench clicks at 30.0 Nm (22.1) (Figures 11 and 12).



Figure 11



Figure 12

**IMPORTANT: Tighten to exactly 30.0 Nm (22.1 ft/lbs). DO NOT tighten beyond 30.0 Nm (22.1 ft/lbs).**

14. If 30.0 Nm (22.1 ft/lbs) of torque is achieved without the angle gauge reaching 90°, the nut **passes** inspection. If the 30.0 Nm (22.1 ft/lbs) of torque is only achieved after the torque angle gauge reaches or exceeds 90°, the nut does **not pass** the inspection.
15. Repeat Steps 13 and 14 for each of the remaining three (3) 14mm rear transmission mounting nuts.
  - a. If each of the four (4) 14mm rear transmission mounting nuts passes the inspection as described in Step 14, the vehicle **passes** inspection. Proceed to Step 16.
  - b. If any one or more of the 14mm rear transmission mounting nuts fails the inspection as described in Step 14, the vehicle does **not pass** inspection. **Hold this vehicle in Dealer Inventory until Campaign parts and additional repair information becomes available.** Proceed to Step 17.
16. Torque all four (4) 14mm nuts to 51.2 Nm (37.8 ft/lbs).
17. Reinstall the DEF line bracket and torque the two (2) nuts to 37.3 Nm (27.5 ft/lbs).
18. Reinstall the propeller shaft using the four nuts and washers removed in Step 4. Ensure the match mark made in Step 3 lines up. Torque the four (4) nuts to 103.0 Nm (76.0 ft/lbs).
19. Install the center bearing bracket and hand tighten the bolts (use an assistant as necessary to lift the propeller shaft in place at the center bearing bracket). Torque the four (4) center bearing bracket bolts to 40.0 Nm (30.0 ft/lbs).
20. If the vehicle **passed** this inspection, proceed to Applying The Campaign Label. If the vehicle did **not pass** this inspection, proceed to the Claim Information section.

## APPLYING THE CAMPAIGN LABEL

1. Using a ball-point pen, fill in a Campaign Label (Part No. 2-90028-700-0) with Campaign Number 17V-105 (US) or 2017-088 (Canada), Isuzu dealer code, and the repair date.
2. Affix the campaign label onto the driver's side B-pillar and proceed to the Claim Information section.

<b>ISUZU</b> <b>CAMPAIGN NUMBER</b> _____
<b>DEALER CODE:</b> _____
<b>REPAIR DATE:</b> _____
<small>P/N 2-90028-700-0</small>

## CLAIM INFORMATION

Refer to the Isuzu ICS Claims Processing Manual for details on Campaign Claim Submission.

**NOTE: As soon as the inspection procedure is completed, submit the claim with the applicable Labor Code as indicated below.**

Labor Code	Description	Labor Hours
V1701C	AT Mount Safety Recall Dealer Inventory With Body – <b>Inspection Passed</b>	0.5
V1701D	AT Mount Safety Recall Dealer Inventory With Body – <b>Inspection NOT Passed</b>	0.5
V1701E	AT Mount Safety Recall Dealer Inventory With Body – <b>No Inspection (Insufficient clearance less than 5")</b>	0.1