


CHRYSLER

August 2013

Dealer Service Instructions for:

Safety Recall N51 / NHTSA 13V-358

Halfshaft-to-Gearbox Output Flange Fasteners

Models

2013 (FF) Fiat 500E (Battery Electric Vehicles)

NOTE: This recall applies only to the above vehicles built from October 3, 2012 through July 30, 2013 (MDH 100307 through 073007).

IMPORTANT: Many of the vehicles within the above build period have already been inspected or repaired and, therefore, have been excluded from this recall.

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The halfshaft-to-gearbox output flange fasteners on about 490 of the above vehicles may loosen and allow the halfshaft(s) to disengage from the gearbox. This could cause the vehicle to lose power and result in a crash without warning.

Repair

The transaxle halfshaft-to-gearbox output flange fasteners for both halfshafts must be replaced. Vehicles found with a damaged halfshaft(s) must also have the damaged halfshaft(s) replaced.

Parts Information

Part NumberDescription**68238427AA****Halfshaft-to-Gearbox Flange Fastener Package**

Note: Six packages required per vehicle if halfshafts are not replaced. Three packages required if one halfshaft is replaced.

Each package contains the following components:

QuantityDescription

2

Fastener, Halfshaft-to-Gearbox Flange

1

Washer, Link

Each dealer to whom vehicles in the recall were assigned will receive enough Halfshaft Bolt Packages to service about 10% of those vehicles.

Part NumberDescription**68101215AD****Halfshaft (left side)****68101214AD****Halfshaft (right side)**

NOTE: Halfshafts come with new halfshaft-to-gearbox output flange fasteners. Do not order additional fasteners.

06509729AA**Nut, Hub****06509732AA****Bolt, Pinch****06106208AA****Nut, Hex****68065196AA****Mopar Brake Parts Cleaner (MSQ: 12)**

Special Tools

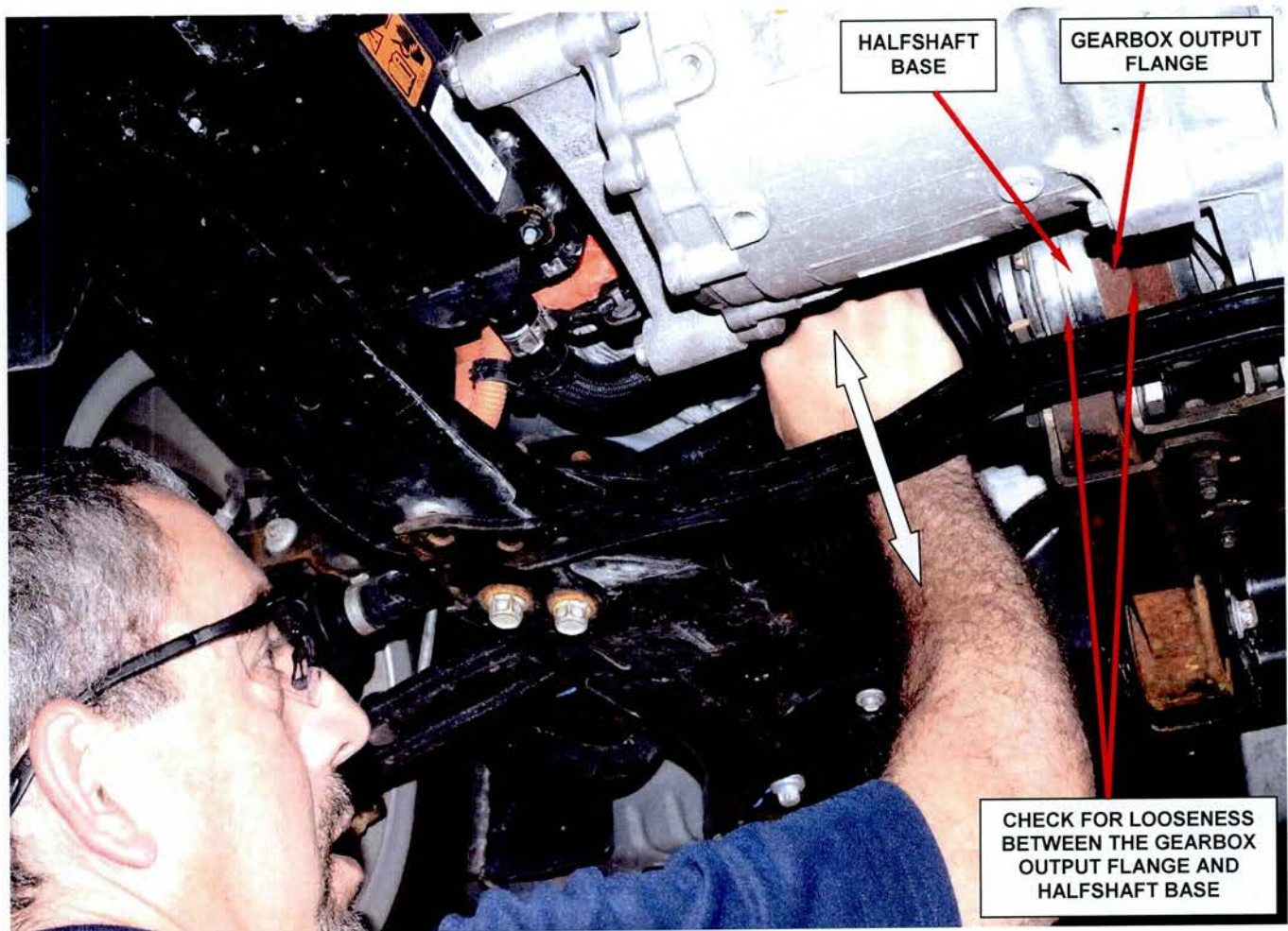
The following special tool is required to perform this repair:

➤ 10287-1

Stake Tool

Service Procedure**A. Inspect Halfshafts and Halfshaft Fasteners**

1. Lift the vehicle on an appropriate hoist.
2. Check both halfshafts for looseness at the gearbox output flange and halfshaft base (Figure 1):
 - If the halfshafts are not loose, continue to **Section C. Replace Halfshaft Fasteners**.
 - If one or both halfshafts are loose, continue with Step 3 of this procedure.



**Figure 1 – Check for Looseness
(right side shown)**

Service Procedure (Continued)

3. Mark the halfshaft orientation to the gearbox output flange on the loose halfshaft.
4. Remove and discard the six halfshaft-to-gearbox output flange fasteners.
5. Pull the halfshaft away from the gearbox output flange and inspect the mounting surface of the halfshaft base (Figure 2):
 - If the halfshaft mounting surface is not damaged, continue to Step 6 of this procedure.
 - If the halfshaft mounting surface is damaged, continue with **Section B. Replace Halfshaft(s)**.



Figure 2 – Inspect the Halfshaft Base Mounting Surface (right side shown)

Service Procedure (Continued)

6. Inspect the halfshaft for grease leaks at the halfshaft CV joint base (Figure 3):
 - If there is no grease leaking from the halfshaft CV joint base, continue with **Section C. Replace Halfshaft Fasteners.**
 - If there is grease leaking from the halfshaft CV joint base, continue with **Section B. Replace Halfshaft(s).**

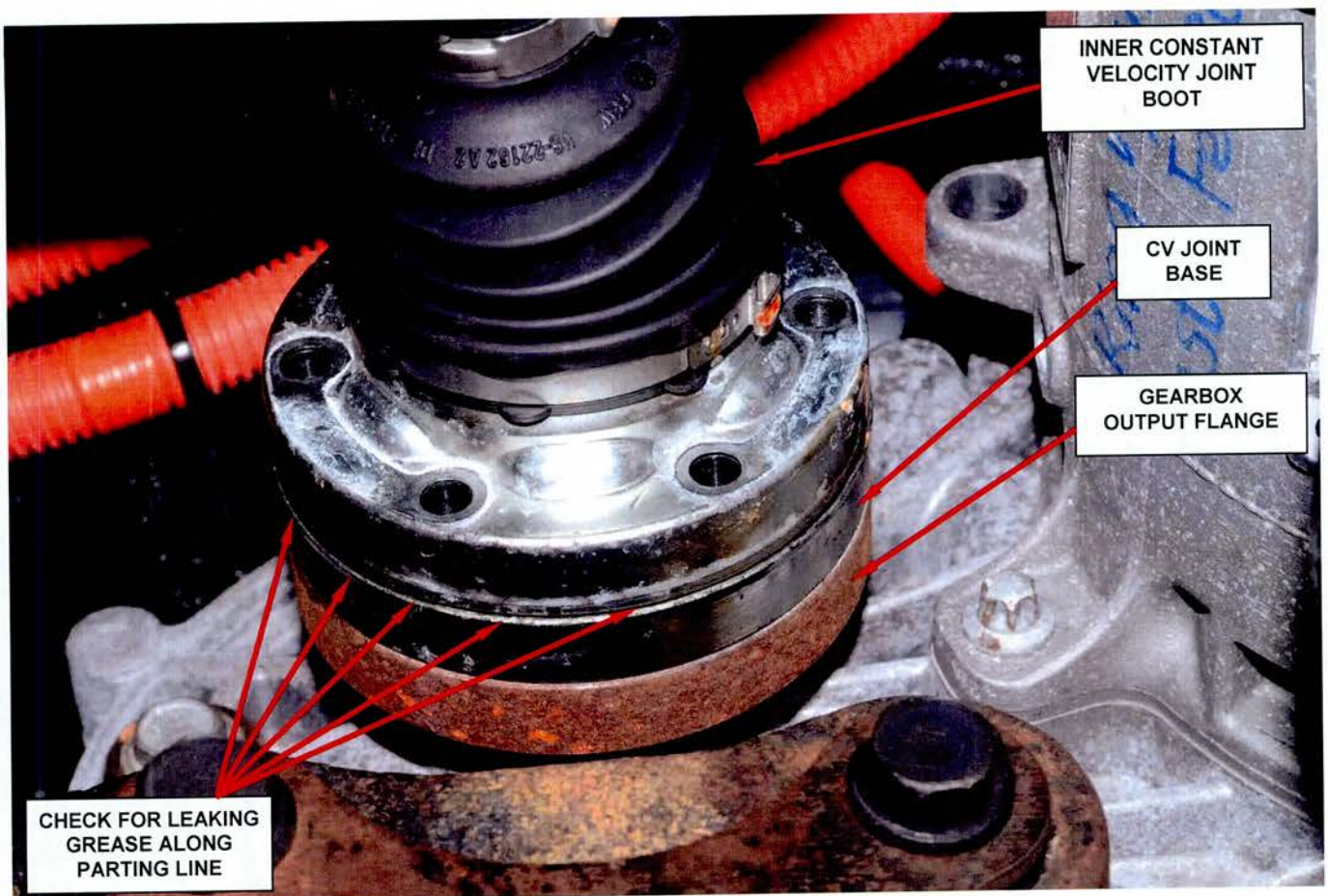


Figure 3 – Inspect for Leaking Grease at Halfshaft Base Seam

Service Procedure (Continued)

B. Replace Halfshaft(s)

NOTE: The following procedure is required if the halfshaft(s) require replacement per the inspection in Section “A.” *Very few vehicles are expected to require this repair.*

1. Remove and save the tire and wheel assembly.

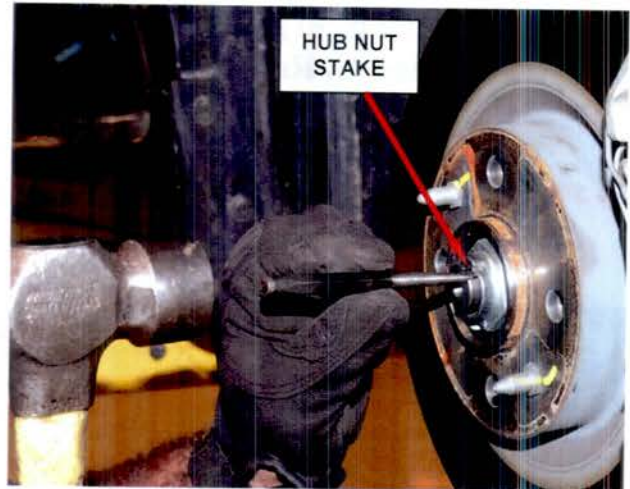


Figure 4 – Disengage Hub Nut Stakes

2. Using a small hammer and chisel, disengage the two stakes on the halfshaft hub nut (Figure 4).

3. Remove and discard the halfshaft hub nut.

4. Remove and discard the lower ball joint pinch bolt and nut (Figure 5).

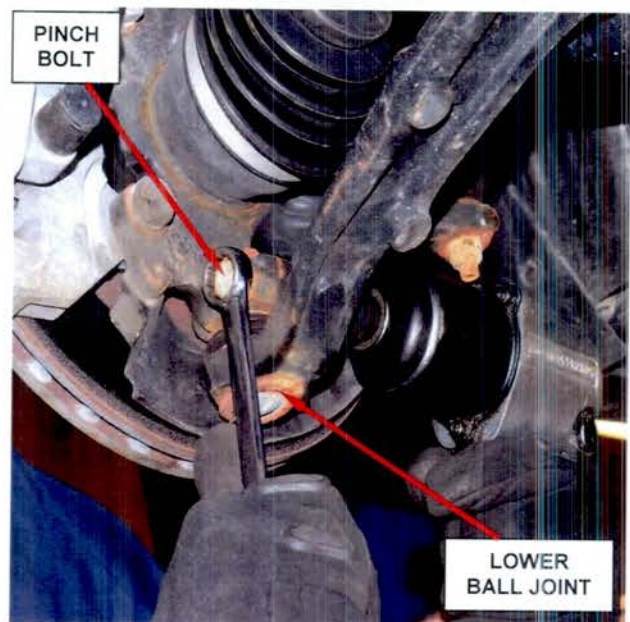


Figure 5 – Lower Ball Joint Pinch Bolt

Service Procedure (Continued)

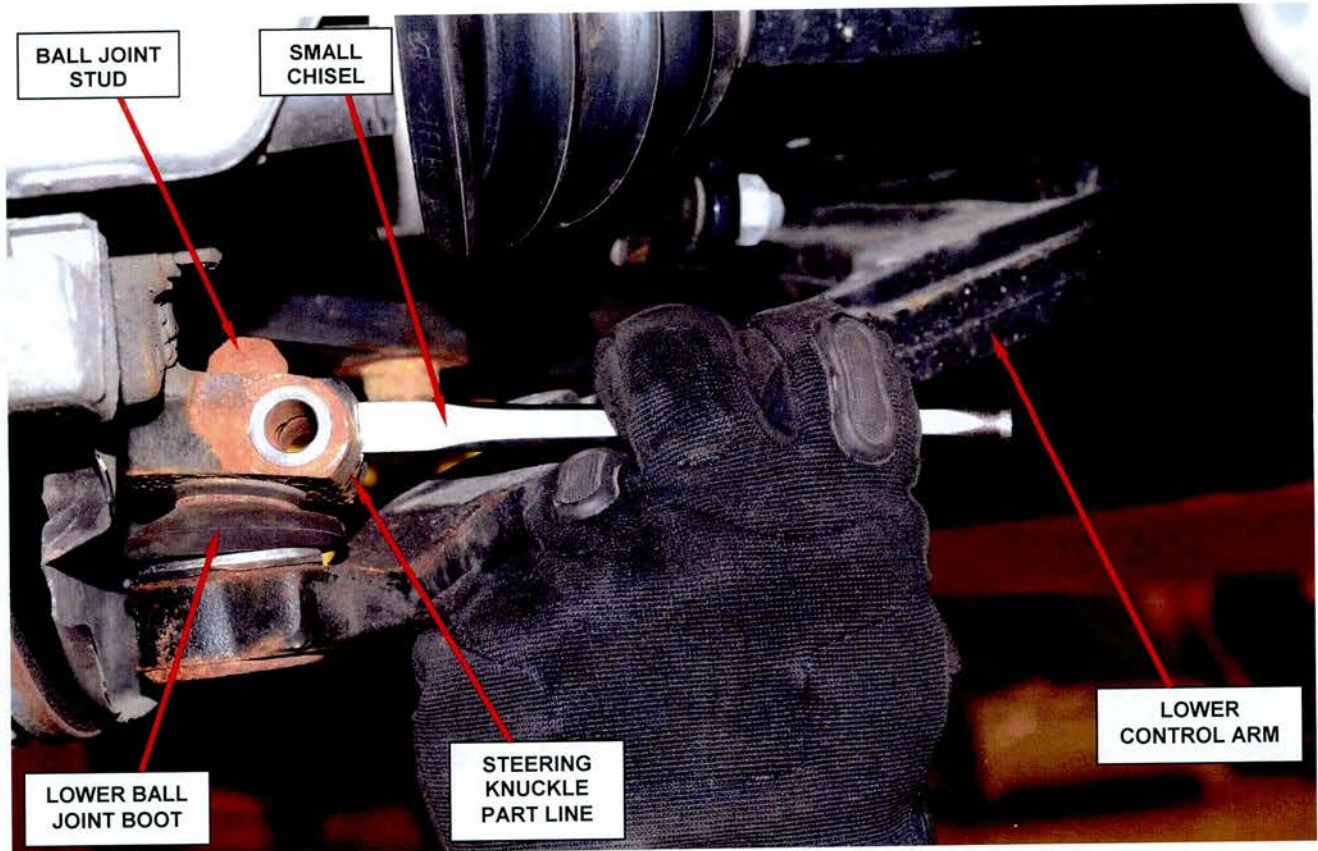


Figure 6 – Slightly Spread the Steering Knuckle to Release the Ball Joint Stud

5. Using a small chisel and hammer, slightly spread the steering knuckle at the parting line (Figure 6).

6. Carefully pull the ball joint stud out of the steering knuckle (Figure 6).

CAUTION: Use extreme care not to damage the lower ball joint rubber boot.

7. Wrap the lower ball joint in a shop towel to protect the ball joint boot from being damaged (Figure 7).

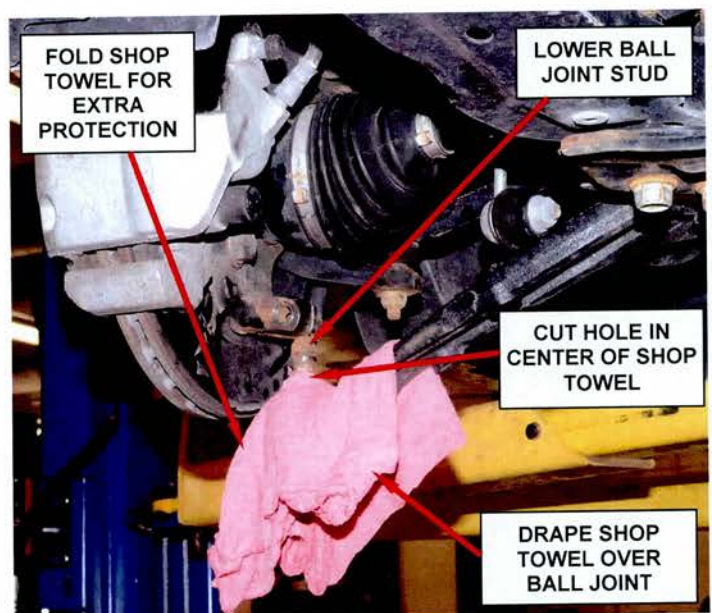


Figure 7 – Place Shop Towel Over Ball Joint Boot

Service Procedure (Continued)

8. Position the steering knuckle to allow removal of the halfshaft, and then remove the halfshaft.
9. Using Mopar Brake Cleaner and compressed air, clean the threaded holes in the gearbox output flange of all grease and debris.

CAUTION: Be sure to wear eye protection.



Figure 8 – Install New Pinch Bolt and Nut

10. Reposition the steering knuckle, and install the new halfshaft.
11. Remove the shop towel from the ball joint and engage the ball joint stud into the steering knuckle.

CAUTION: Use extreme care not to damage the lower ball joint rubber boot.

12. Install a new pinch bolt and nut. Tighten the pinch bolt to 48 ft. lbs. (65 N·m) (Figure 8).

13. **Continue to Section C. Replace Halfshaft Fasteners.**

Service Procedure (Continued)**C. Replace Halfshaft Fasteners**

1. **For vehicles with a halfshaft replaced**, engage all six new halfshaft-to-gearbox output flange fasteners evenly and snug fasteners (Figure 9).

NOTE: Be sure that the link washer is flush to the CV joint housing at all time to avoid deformation.

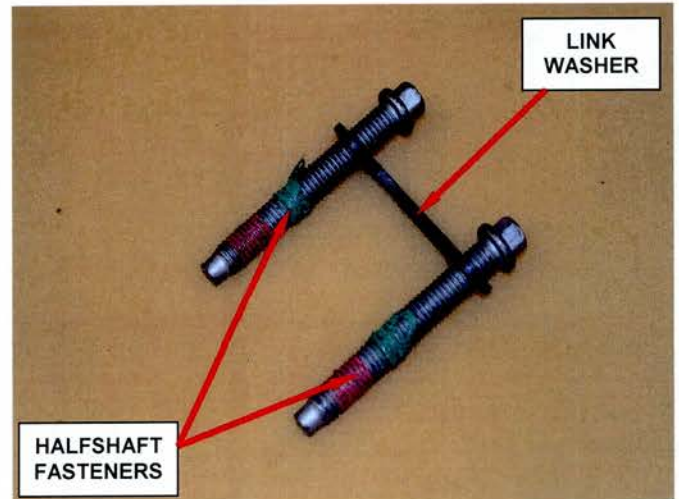


Figure 9 – Halfshaft Fasteners and Link Washer

2. **For vehicles with a halfshaft replaced**, tighten the new halfshaft-to-gearbox output flange fasteners to 19 ft. lbs. (26 N·m) in a crisscross pattern.

NOTE: Time between Steps one to two must not exceed 10 minutes. Any manipulation to the fastener after this time will require fastener replacement.

3. **For vehicles that had all halfshaft fasteners removed for inspection**, use Mopar Brake Cleaner and compressed air, clean all grease from fastener holes in the halfshaft CV joint base and threaded holes in gearbox output flange.

CAUTION: Be sure to wear eye protection.

4. **For vehicles that had all halfshaft fasteners removed for inspection**, install six new halfshaft-to-gearbox output flange fasteners and snug fasteners (Figure 9).

NOTE: Be sure that the link washer is flush to the CV joint housing at all time to avoid deformation.

Service Procedure (Continued)

5. For vehicles that had all halfshaft fasteners removed for inspection, tighten the new halfshaft-to-gearbox output flange fasteners to 19 ft. lbs. (26 N·m) in a crisscross pattern.

NOTE: Time between Steps four to five must not exceed 10 minutes. Any manipulation to the fastener after this time will require fastener replacement.

6. For vehicles that did not have the halfshaft fasteners removed, perform the following procedure:

- a. Remove and discard two original fasteners at a time that are connected with a link-washer (Figure 9).
- b. Use Mopar Brake Cleaner and compressed air, clean all grease from the two fastener holes in the halfshaft base and threaded holes in gearbox output flange.

CAUTION: Be sure to wear eye protection.

- c. Carefully install two new fasteners with a link washer (Figure 9). Snug the fasteners, but do not tighten at this time.

NOTE: Be sure that the link washer is flush to the CV joint housing at all time to avoid deformation.

- d. Repeat Steps 6a through 6c on the remaining halfshaft fasteners.
- e. Tighten the new halfshaft-to-gearbox output flange fasteners to 19 ft. lbs. (26 N·m) in a crisscross pattern.

NOTE: Time between Steps 6c to 6e must not exceed 10 minutes. Any manipulation to the fastener after this time will require fastener replacement.

- f. Repeat Step 6a through 6e on the other halfshaft.

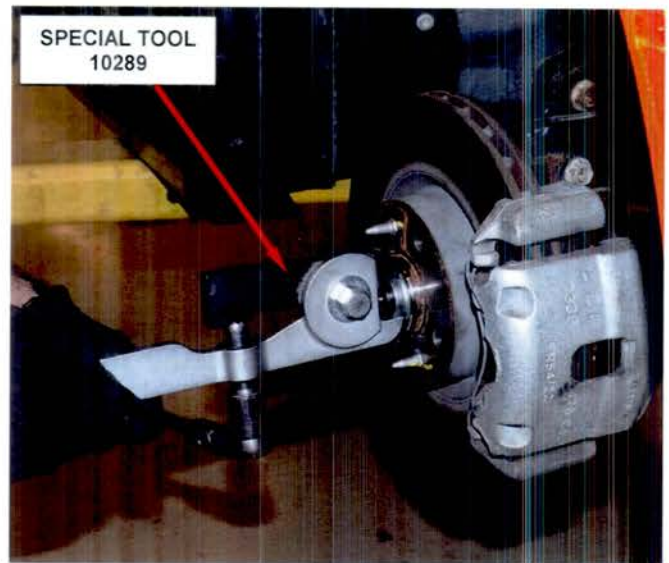


Figure 10 – Stake Hub Nut

Service Procedure (Continued)

7. **For vehicles that had halfshaft(s) replaced**, perform the following procedure:

- a. Install the new halfshaft hub nut(s). Tighten the halfshaft hub nut(s) to 229 ft. lbs. (310 N·m).
- b. Stake the hub nut using tool 10289 so the metal rolls into the keyway slots in the halfshaft (Figure 10).

NOTE: The edge of the stake tab must be split and bent into the shape shown in Figure 11.

- c. Install the wheel and tire assembly. Tighten the wheel bolts to 75 ft. lbs. (100 N·m).

8. Lower the vehicle from the hoist.

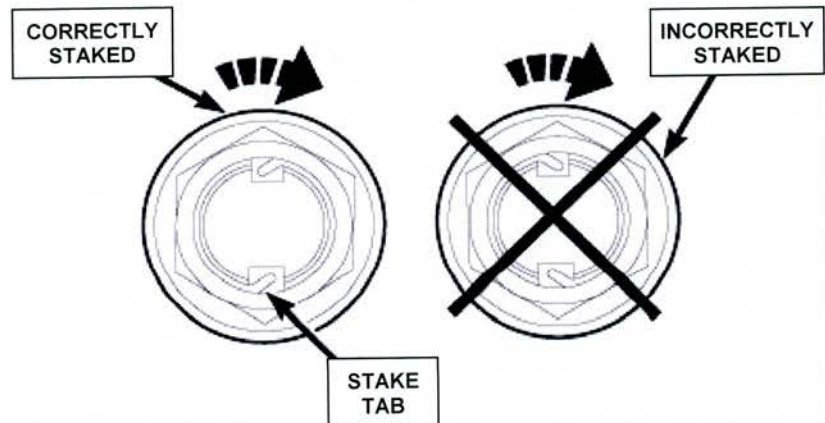


Figure 11 – Stake Tab Location

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by Chrysler to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Inspect both halfshafts and install new halfshaft-to-gearbox flange fasteners	02-N5-11-82	0.7 hours
Inspect both halfshafts, replace <u>one</u> halfshaft and install new halfshaft-to-gearbox flange fasteners	02-N5-11-83	1.1 hours
Inspect both halfshafts, replace <u>two</u> halfshaft and install new halfshaft-to-gearbox flange fasteners	02-N5-11-84	1.4 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

Dealer Notification

To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to Chrysler are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “**Service**” tab and then click on “**Global Recall System.**” Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers must perform this repair on all unsold vehicles before retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations
Chrysler Group LLC



**SAFETY RECALL N51 / NHTSA 13V-358
HALFSHAFT-TO-GEARBOX OUTPUT FLANGE FASTENERS**

Dear: (Name)

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Chrysler has decided that a defect, which relates to motor vehicle safety, exists in some **2013 model year Fiat 500E Battery Electric Vehicles (BEV)**.

The problem is... The halfshaft-to-gearbox output flange fasteners on your vehicle (VIN: xxxxxxxxxxxxxxxxx) may loosen and allow the halfshaft to disengage from the gearbox. This could cause the vehicle to lose power and result in a crash without warning.

What your studio will do... Fiat will repair your vehicle free of charge (parts and labor). To do this, your studio will replace the halfshaft-to-gearbox output flange fasteners and replace the halfshaft(s), if necessary. The work will take about 1.5 hours to complete. However, additional time may be necessary depending on service schedules.

What you must do to ensure your safety... Simply contact your Fiat studio right away to schedule a service appointment. Ask the studio to hold the parts for your vehicle or to order them before your appointment. **Please bring this letter with you to your studio.**

If you need help... If you have questions or concerns which your studio is unable to resolve, please contact the Fiat Customer Assistance Center at 1-888-242-6342.

Please help us update our records by filling out the attached prepaid postcard if any of the conditions listed on the card apply to you or your vehicle. You may also update this information on the web at www.fiatusa.com/ownersreg.

If you have already experienced this condition and have paid to have it repaired, please send your original receipts and/or other adequate proof of payment to the following address for reimbursement: Chrysler Customer Assistance, P.O. Box 21-8007, Auburn Hills, MI 48321-8007, Attention: Reimbursement. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days.

If your studio fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to <http://www.safercar.gov>.

We're sorry for any inconvenience, but we are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Services / Field Operations
Chrysler Group LLC
Notification Code N51

Note to lessors receiving this recall: Federal regulation requires that you forward this recall notice to the lessee within 10 days.