



Recall Bulletin # 1

January 3, 2005



Avenger Steering System

Vehicles Affected: All Avenger Models Manufactured in 2004
Prior To Serial Number V22399

Description:

ODG is recalling 612-102 ARM, STEERING and 612-104 SHAFT, STEERING - ARGO, on Avenger vehicles manufactured in 2004. A more robust and fatigue resistant design has been employed for the Avenger steering arm. A Retaining ring has also been added to the Avenger steering shaft.

Reason for Change:

Both of these measures are being taken to improve the safety of the Avenger steering system. The new steering arms have a greater fatigue resistance and the retaining ring added to the shaft is a redundant safety feature that does not allow the steering arms to move from their position if the opposite arm were to fail.

Action Required For Avenger Models Only:

Recall Parts Kit 612-125 for Vehicles from S/N: V20905 prior to S/N: V22279 will include:

- (2) 612-124 ARM, STEERING
- (1) 612-104 SHAFT, STEERING - ARGO
- (1) 106-07 RETAINING RING
- (2) 104-42 PIN, SPRING 1/4x1.5
- (1) 100-64 Tie Wrap
- (1) 117-29 Nylon Locknut

Recall Parts Kit 612-126 for vehicles from S/N: V22279 prior to S/N:22399 will include:

- (2) 612-124 ARM, STEERING
- (2) 104-42 PIN, SPRING 1/4x1.5
- (1) 100-64 Tie Wrap
- (1) 117-29 Nylon Locknut

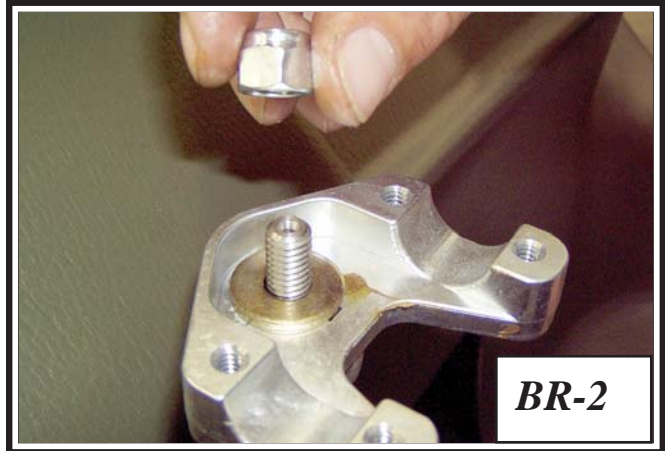
All disassembly and re-assembly instructions for the updated recall of the Avenger Steering System are included with this bulletin, and also with each order of replacement kits. All work should be done by a qualified Argo Distributor or Dealer.

Warranty flat rate is 1 hour. **Each vehicle updated requires an individual warranty claim.** DO NOT return replaced parts to ODG, but please ensure they are discarded.

Disassembling the Avenger Steering Column

1. Perform the servicing procedure, **Removing the Firewall**.
2. Cut the tie wrap securing cables to the steering column.
3. Remove the (4) fasteners securing the steering bar to the steering column assembly.

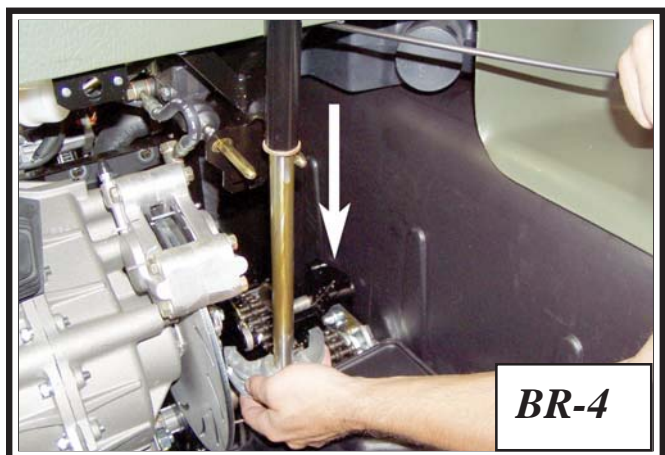
Photo BR-1



4. Remove the Nylon Locknut and Flat Washer from the top of the 612-106 Lower Handle Bar Clamp. Discard the nylon locknut. *Photo BR-2*
5. Remove the Lower Handle Bar Clamp from the steering shaft. *Photo BR-3*

IMPORTANT

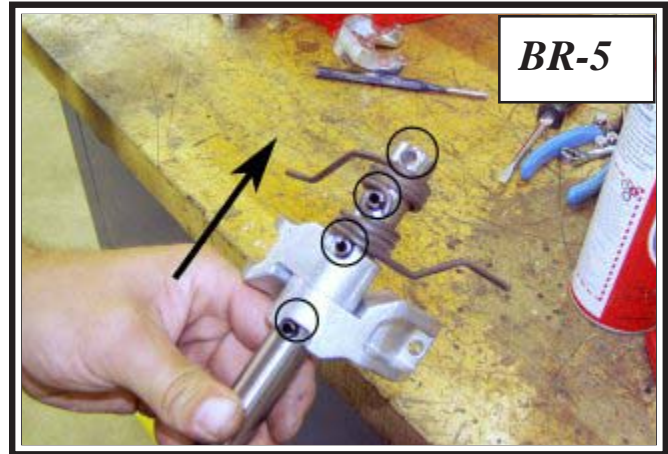
Be aware of the small key installed into the steering shaft and ensure it is installed when reassembling the steering system.



6. Slip the 612-104 Steering Shaft from the Steering Column Assembly. *Photo BR-4*
7. Place the Steering Shaft on a clean work bench and remove the 4 roll pins that come into contact with both centering springs and Steering Arms. *Photo BR-5* Slide each steering arm and centering spring from the shaft. See **NOTE** on following page.

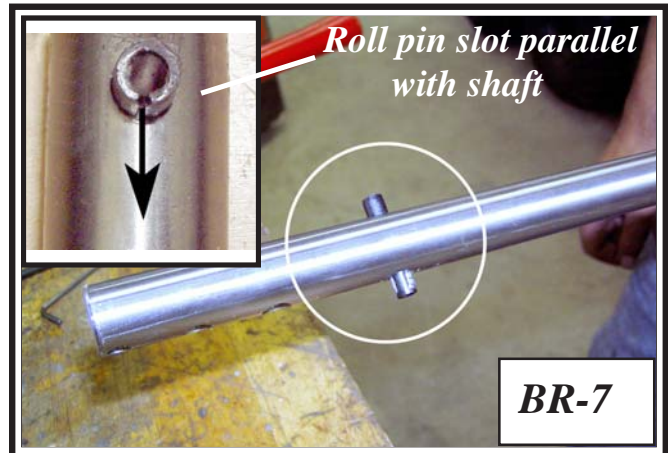
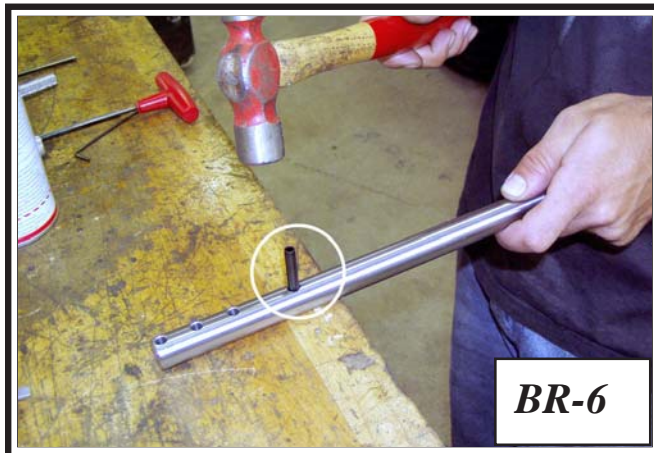
NOTE

Depending on the serial No. range of your vehicle, the steering shaft may have a retaining ring installed between the 2 steering arms. If this is the case, remove the retaining ring as well. If the steering shaft does not utilize this retaining ring, the steering shaft must be discarded and replaced with the one supplied in the recall parts kit.

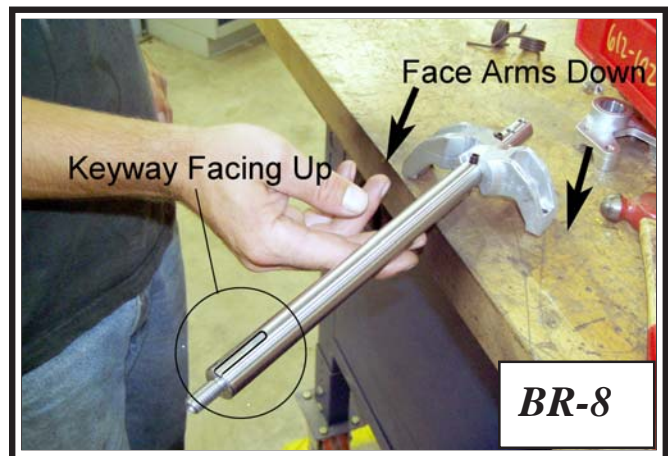


Reassembling the Avenger Steering Column

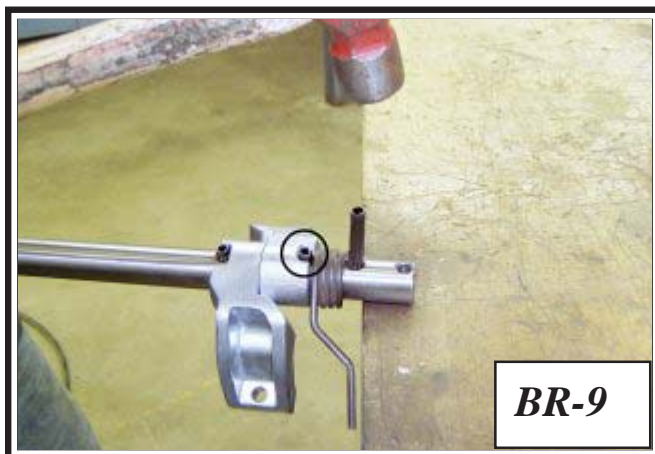
1. Discard the original 612-104 Steering Shaft if it does not have the machined retaining ring groove, and replace it with the one supplied with the recall parts kit. Install one of the new supplied 104-42 Spring Pins into the Steering Shaft at the 4th hole from the end. **Photo BR-6** The roll pin should be installed such that the slot of the pin is parallel to the shaft, and equal amount of pin protrudes on each side of the shaft. **Photo BR-7**



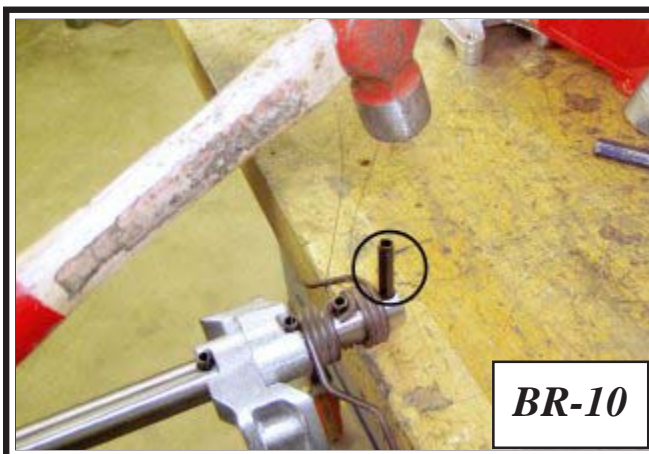
2. Slip the new 612-124 Steering Arm on to the Steering Shaft, followed by the 106-07 retaining ring, seating it to the groove on the shaft. Install the second 612-124 steering arm. Orient them as illustrated in **Photo BR-8**
3. Install the 2nd new supplied 104-42 Spring Pin, followed by a centering spring. Install the 3rd (original) roll pin, followed by a 2nd centering spring and 4th (original) roll pin. **Photo BR-9 & 10**



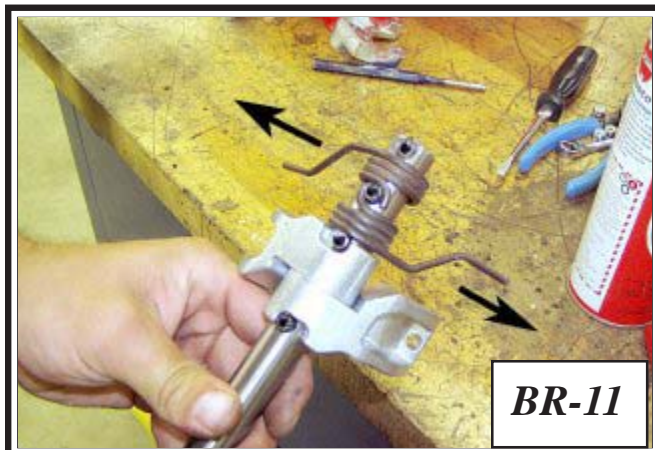
NOTE Please observe the orientation of the free end of the springs. Each is pointing in the same direction as the steering arms. **Photo BR-11**



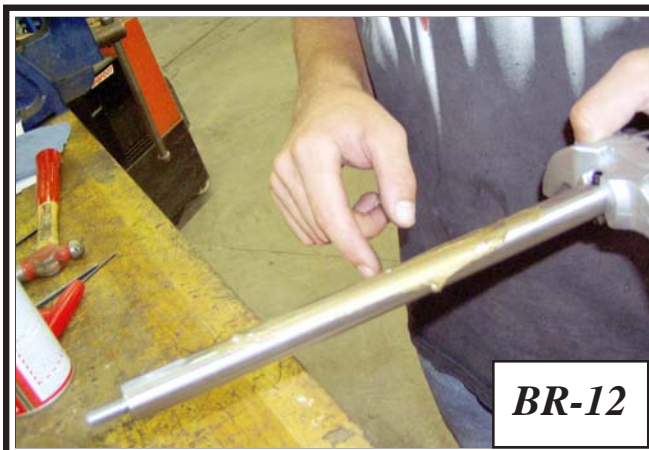
BR-9



BR-10

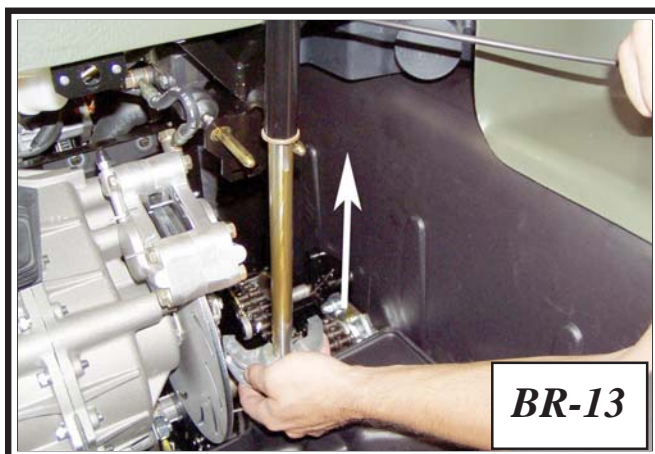


BR-11

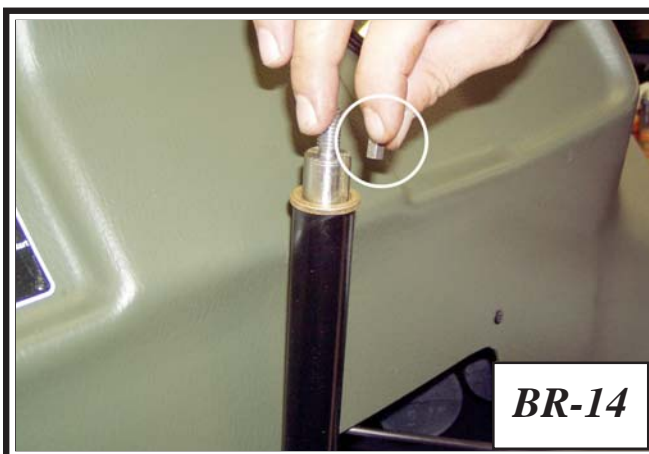


BR-12

4. Apply some axle grease to the length of the Steering Shaft and insert it from the bottom up into the Steering Column Assembly. **Photo BR-12 & 13**



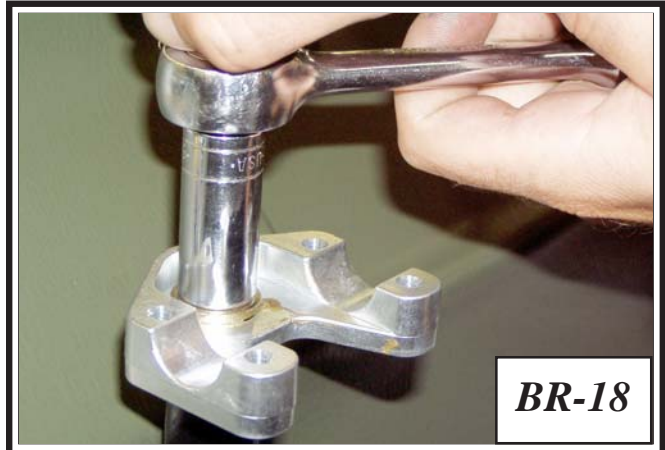
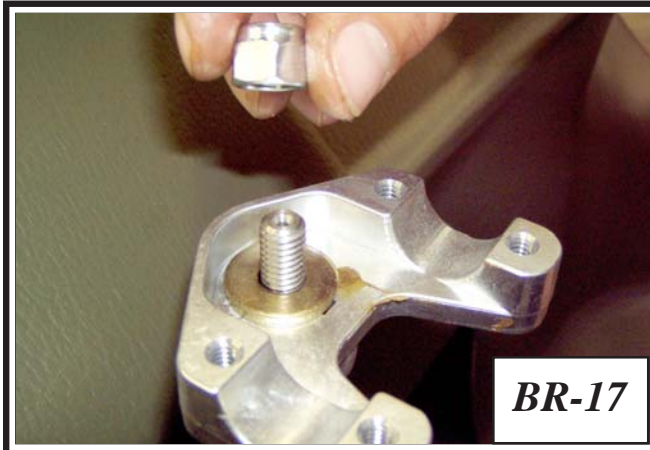
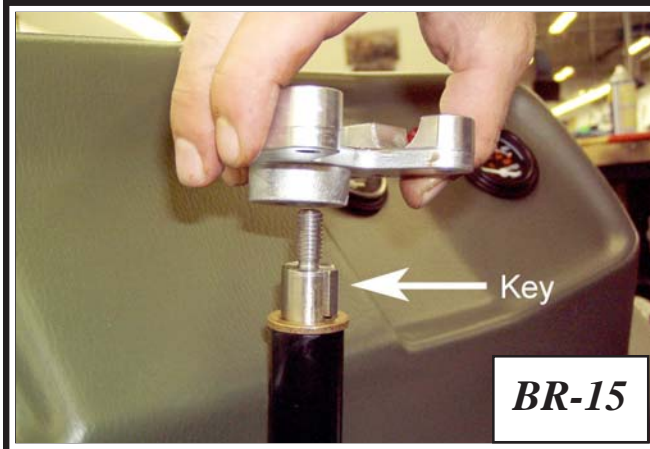
BR-13



BR-14

5. Place the key to the end of the Steering Shaft. **Photo BR-14**
6. Align the keyway of the Lower Handle Bar Clamp with that of the previously installed key and assemble to the Steering Shaft. **Photo BR-15 & 16**

7. Install a Flat Washer and the *new* 117-29 Nylon Locknut supplied to the threaded end of the steering shaft. **Photo BR-17**



8. Tighten down the Nylon Locknut snug. Back off the Locknut just enough to allow the Flat Washer below to be turned by hand. Do not overtighten. Ensure the shaft turns freely with minimal end play. **Photo BR-18**

9. Set the Handle Bar assembly into place and cover with the Upper Handle Bar Clamp. The Handle Bar clamp is secured into place with four fasteners. Tighten down the fasteners in an "X" pattern indifferent to starting location at a torque specification of 10 - 12 Ft. LBS (13.5 - 16N.m) **Photo BR-19**



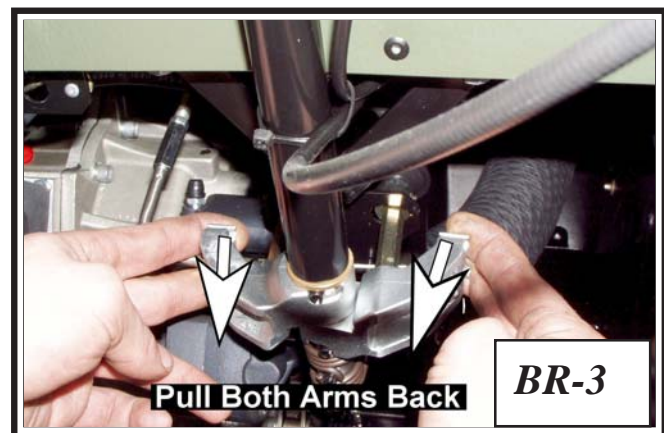
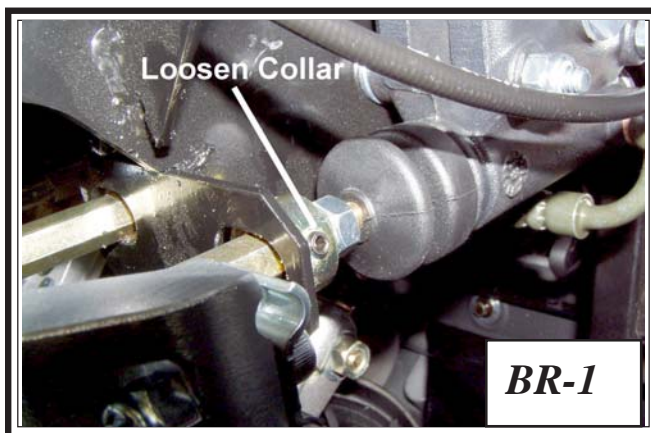
10. Apply firm pressure to handle bars in each steering direction to seat the roll pins.
11. Perform the servicing procedure, **Hydraulic Plunger Pin Adjustment.**

Hydraulic Brake Plunger Pin Adjustment (Avenger Model)

IMPORTANT

It is critical that the master cylinder pistons are adjusted properly when the steering handle bar is at the centered position. Overheating of the brake system could occur due to the piston being adjusted too far in. This could cause a drag on the system and a possible brake lockup. The piston being adjusted too far out on the other hand, could affect the braking capability of the vehicle for both turning and stopping efficiently.

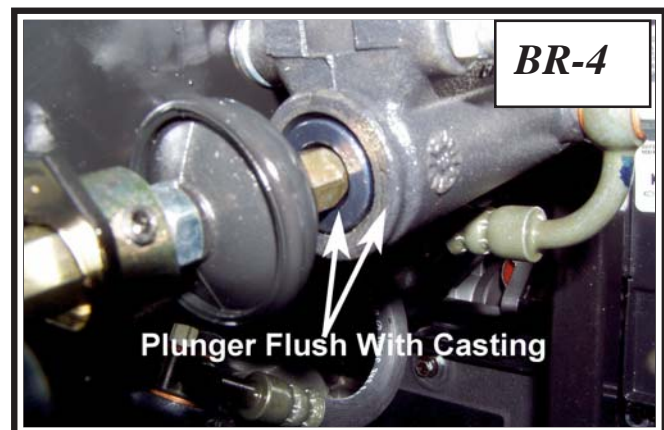
1. Loosen the set screw securing the collar to the plunger pin. *Photo BR-1* This will free the collar to slide along the pin.

**IMPORTANT**

Both left and right steering arms should be pulled back to their rear most limit before the plunger pin adjustment is made. Using both hands, pull back on each arm. *Photo BR-3*

Setting Plunger Pin Adjustment

1. Sitting in the vehicle driver's seat, ensure that the steering handle bar is parallel with the dash. Plunger pins should be threaded so they are in contact at the back with the steering arms. Place the collar tightly up against the welded tab stop and secure the set screws with blue LOCTITE.
2. Thread the plunger pins until the master cylinder plunger piston is flush with casting of the master cylinder. *Photo BR-4* Re-tighten all plunger pin jam nuts. Recheck that steering handle bar is still parallel with dash. Repeat procedure if necessary.



IMPORTANT

Ensure the tab stops that the collars come into contact with are not bent in any way. This will affect how the plunger pin sits when the opposite brake is applied. Any deformity in the tab could cause the plunger pin to become misaligned with it's own steering arm during the application of the opposite brake.

12. Reinstall the Firewall