

**NABI Optima: Steering Column Shaft Pinch Bolt**

**SAFETY RECALL #20122**



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**Approved by:** Dan Allen  
Chief Engineer

**Property name and top bus number:** Optima buses manufactured by NABI (NABI Safety Recall #20122; NHTSA #12V-189)

**Issue:** Steering column shaft pinch bolt(s) may be loose or missing

**Reason/ cause:** SAFETY RECALL #20122.

**Solution:** Follow paragraphs of this work instruction (SOI).

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**Number of affected buses:** as required

**Estimate repair hours/bus:** 30 min

**Necessary parts:**

Bolt, M10-1.5 X 50mm 10.9 grade, Nut, nylock, M10 X 1.5, or	P/N: <b>61225600</b> , P/N: <b>64807102</b> ,	as required, as required,
Bolt, 7/16-20x2, Gr8, Zn, Nut, 7/16-20, flex-lock, Gr8, Torque seal, orange,	P/N: <b>60797600</b> , P/N: <b>64739501</b> , P/N: <b>NPN</b> ,	as required, as required, as required,

**Necessary tools:** calibrated torque wrench capable for 40 lb-ft, #10 star bit, 7/16", 5/8", 17 mm wrenches and sockets

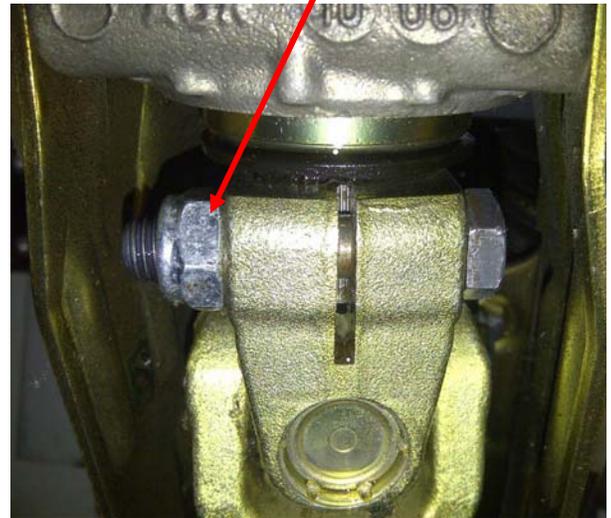
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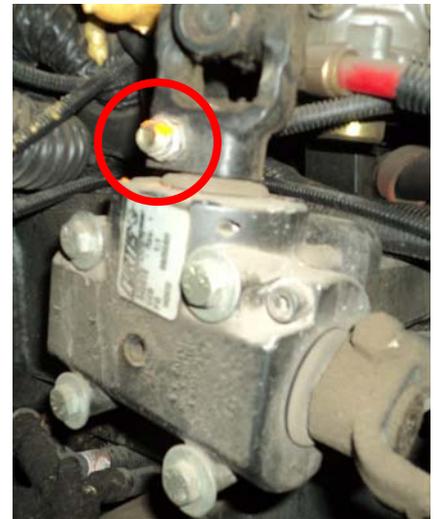


**SAFETY PRECAUTIONS MUST BE FOLLOWED ACCORDING TO ACCEPTED INDUSTRY STANDARDS AND LOCAL/PROPERTY REQUIREMENTS.**

1. Park the bus on a flat surface.
2. Apply the parking brake.
3. Remove closeout panels right below the steering column to access the top pinch bolt. There are two different closeout panels as pictures show below.



4. Open the battery access door and pull/turn the batteries out from the compartment to access the bottom pinch bolt (see below).

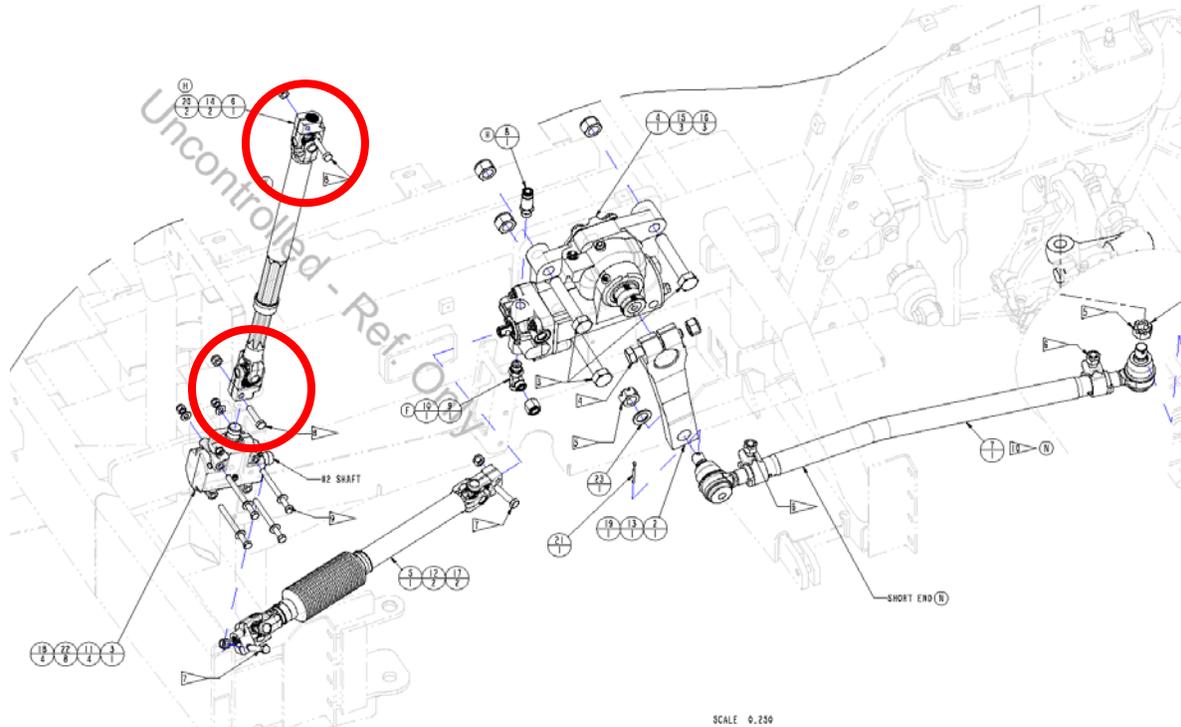


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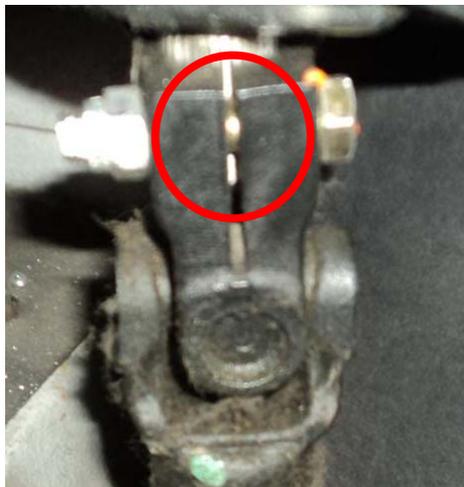
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5. Inspect to determine the presence of the 2 (top and bottom) bolts and lock nuts (see below).



6. If the bolts and nuts are present:
  - Ensure that the bolt is properly installed into the groove of the shaft (see below).



- Torque nuts to 35-39 lb-ft.
- No further action is required.

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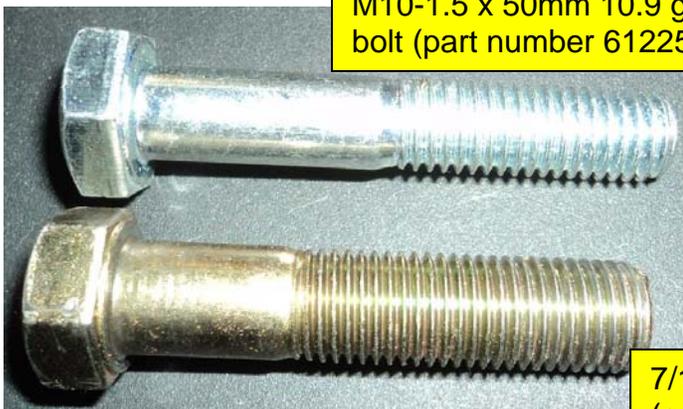
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7. If the bolts and or nuts are missing:

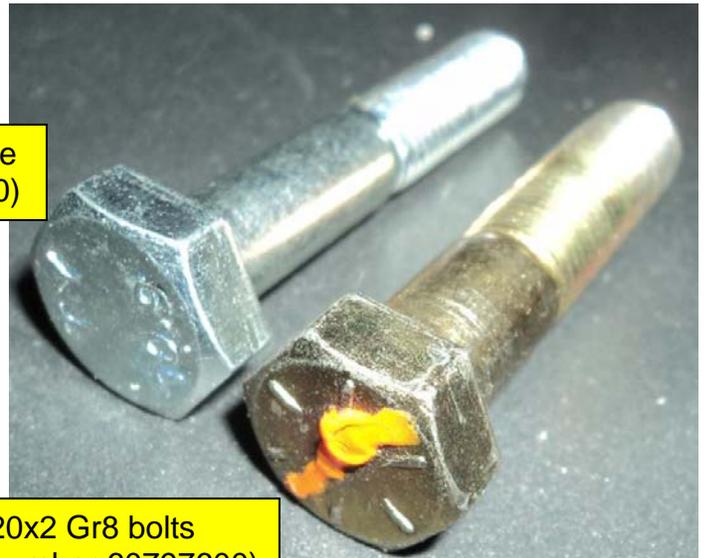
**NOTE:** It is important that the specified replacement hardware be used. This is called out in the Maintenance Manual and Parts Catalog for each bus.

- The vehicle must NOT be operated until correction is made.
- Refer to the Maintenance Manual and Parts Catalog to determine what kind of hardware must be used. Depending upon the date of manufacture, there are 2 different configurations, which require specific hardware:
  - M10-1.5 x 50mm 10.9 grade bolt (part number 61225600) and a M10 x 1.5 nylock nut (part number 64807102), OR
  - 7/16-20x2 Gr8 bolts (part number 60797600) and a 7/16-20 flex-lock nut



M10-1.5 x 50mm 10.9 grade bolt (part number 61225600)

7/16-20x2 Gr8 bolts (part number 60797600)



- Torque the nuts to 35-39 lb-ft.
  - Apply torque seal the nut.
8. Push battery tray back, secure the tray and close the compartment door.
  9. Reinstall closeout panel of the steering column.
  10. Remove all the tools from work area.
  11. Check for completeness of work.
  12. Please fill the form below and return to NABI, Warranty Dept., 106 National Drive, Anniston, AL 36207 for each inspection and repair.