ArvinMeritor

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Troy, MI 48084

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March 08, 2011

Antoinette McKee
Sourcing Manager
Motor Coach Industries
1700 East golf Road
Schaumburg, IL 60173

NOTICE: Defect Information Report, in accordance with 49 CFR §573.6, concerning certain bolts supplied by General Fastener Corporation and assembled into ArvinMeritor MC14 & MC16 type TAG axles.

ArvinMeritor File: C11AC NHTSA File: 11E-007

Dear Antoinette McKee:

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

ArvinMeritor (formerly Meritor Automotive) has decided that a defect which relates to motor vehicle safety exists in certain bolts supplied by General Fastener Corporation and assembled into ArvinMeritor MC14 & MC16 type TAG axles.

The affected motor vehicle equipment ArvinMeritor's MC14 & MC16 type tag axles assembled at ArvinMeritor's Heath, Ohio facility that contain certain bolts supplied by General Fastener Company, 37584 Amrhein Road, Ste. 150, Livonia, MI 48150-1012 ("General Fastener").

ArvinMeritor's Heath, Ohio facility is located at 444 Hebron Road, Heath, Ohio, 43055.

Axles containing the suspect bolts were shipped to ArvinMeritor customers between 10/21/2010 and 12/6/2010. A list of affected customers and quantities is contained in Appendix A of this notice.

The population of potentially affected axles was determined by shipment records maintained by ArvinMeritor.

Description of Defect

The subject bolts are used in ArvinMeritor MC14 & MC16 type tag axle assemblies to connect the axle housing to the spindle of the axle.

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General Fastener has informed ArvinMeritor that suspect bolts may not have been properly heat treated, resulting in potentially compromised hardness and strength that, in turn could lead to reduced joint integrity.

NHTSA Notification & Safety Recall Obligations

According to our records, affected units were shipped to your company. If those units were installed as original equipment on vehicles manufactured at your facility, and you agree that they contain a safety defect, your company must notify the National Highway Traffic Safety Administration (NHTSA) within 5 business days and conduct a safety recall of those vehicles. It is critical that the NHTSA guidelines are followed in a timely manner and that your customers are notified to conduct the remedy described below.

IMPORTANT: Some of the affected vehicles may still be in your inventory. Federal law requires you to complete the recall service on these vehicles before delivery. ArvinMeritor will provide replacement or repair for these units prior to delivery to your customers.

You must also submit your draft version of your dealer and customer notices to NHTSA for approval at least 5 days prior to mailing such notification to dealers and owners of potentially affected capscrews. You may contact NHTSA with questions by sending an email to rmd.odi@dot.gov.

IMPORTANT: Dealer notification by Certified Mail is required by Federal law for all safety recalls. Responsible dealership personnel should be instructed to sign for this Certified Mail without hesitation as it contains urgent safety recall information. Notifications to owners of potentially affected vehicles are by first class mail. Please be advised that the outside of each envelope containing an owner notification letter must be marked "SAFETY RECALL NOTICE" all in capital letters, either in boldface or underlined, and in type that is larger than that used in the address section. A sample of the envelope must be submitted to NHTSA for approval at least 5 business days before mailing to owners.

Recommended Action

ArvinMeritor recommends that owners of vehicles equipped with the 54 suspect axle assemblies containing General Fastener suspect capscrew (part number 15X1854) replace the capscrew using procedures outlined in ArvinMeritor's Technical Publication TP-1156.

The affected vehicles should be repaired as soon as feasible by a vehicle manufacturers' authorized repair facility or end-user. This replacement program will be managed by ArvinMeritor, and will be at no expense to vehicle owners.

Identification of Affected Parts

Attached is a shipment report listing the 54 ArvinMeritor axle assemblies shipped to your facility that have the suspect General Fastener suspect capscrew part number 15X1854.

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Availability of Replacement Parts and Service Instructions

Replacement parts, kit part number FRK 11 10115, will be available as of 3/14/2011.

Replacement parts can be ordered by the OEM directly from ArvinMeritor Commercial Vehicle Aftermarket in Florence, Kentucky by phone or fax (phone: 859-525-3362, fax: 859-817-3301, or to call toll free dial: 888-725-9355, press 2 for ordering between 8:00 a.m. and 4:30 p.m. EDST.

Labor and Handling Allowance

The labor and handling allowance is 4 hours per wheel end or 8 hours per axle. Dealers and end-users should follow their standard OEM warranty claim processing procedures to obtain reimbursement of expenses associated with installing service kits and replacement parts.

Removed Material Disposition

ArvinMeritor requires the dealers or fleets to return the removed suspect parts (18 capsrews part number 15X1854) to ArvinMeritor through the OEM warranty procedure.

The dealer or end-user should complete the instructions with TP-1156 and then file a warranty claim with their OEM. ArvinMeritor will accept warranty claims directly from the vehicle manufacturers.

ArvinMeritor Claims for Credit

Warranty claims associated with this recall should be directed by the vehicle manufacturer to ArvinMeritor in Troy, Michigan the axle manufacturer. ArvinMeritor will pay valid claims for the replacement of suspect parts. Warranty claims for installing the replacement parts associated with this notice should contain the following information:

- Reference to ArvinMeritor's Campaign Number C11AC
- Reference to the vehicle manufacturer's campaign number (optional)
- Reference the OEM claim number
- 17-digit vehicle identification number (VIN)
- Axle Serial Number.
- Vehicle owner's name, address, and telephone number
- Vehicle in-service date
- Vehicle repair date
- Vehicle mileage at the time of repair
- Dealer work order number
- Repairing facility name, address, and telephone number
- Total labor hours required performing the work
- Repair facilities hourly rate
- Repair part numbers and quantities used for the repair
- Return 18 removed capscrews part number 15X1854

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NOTE: In order to receive payment on claims the removed suspect parts (18 capscrews part number 15X1854) need to be returned to the OEM.

OEM Return Instructions:

Mail the completed limited warranty claim form, and the 18 existing (replaced) plate to spindle flange capscrews to MCI's warranty department:

MCI Fleet Support
Attn: Warranty Department
7001 Universal coach Drive
Louisville, KY 40258
Fax Number 1-800-360-8886

To receive credit for the hours to complete this task contact MCI Fleet Support Technical Center at 1-800-241-2947 for any other information.

Communication

If you conclude that ArvinMeritor has not enabled you to remedy this condition in a reasonable time, you may submit a complaint to the:

Administrator
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

- or -

Call the toll free Auto Safety Hotline: 1-888-327-4236

We regret any inconvenience that this situation may cause. ArvinMeritor wants to assure you that we are concerned for customer safety and your continued satisfaction with our products.

Sincerely,
Frank Cookson
Frank Cookson
Service Manager
ArvinMeritor

Attachments: Shipment Report – See Appendix A
ArvinMeritor TP- TP-1156
Defect Information Report to NHTSA

cc: NHTSA

ArvinMeritor

Appendix A

ArvinMeritor Part Number	TAG Axle Serial Number	Axle Mfg Date	ArvinMeritor Part Number	TAG Axle Serial Number	Axle Mfg Date
MC16003NSNK8	NWK00278874	10/21/2010 12:42	MC16003NSNK8	NWK00284622	11/19/2010 7:48
MC16003NSNK8	NWK00278875	10/21/2010 12:45	MC16003NSNK8	NWK00284623	11/19/2010 7:48
MC16003NSNK8	NWK00278876	10/21/2010 12:48	MC16003NSNK8	NWK00284621	11/19/2010 7:45
MC16003NSNK8	NWK00279600	10/25/2010 9:24	MC16003NSNK8	NWK00284620	11/19/2010 7:36
MC16003NSNK8	NWK00279599	10/25/2010 9:24	MC16003NSNK8	NWK00285696	11/18/2010 14:51
MC16003NSNK8	NWK00279598	10/22/2010 15:39	MC16003NSNK8	NWK00285913	11/22/2010 13:23
MC16003NSNK8	NWK00279597	10/22/2010 15:30	MC16003NSNK8	NWK00285914	11/22/2010 13:20
MC16003NSNK8	NWK00281150	11/1/2010 13:19	MC16003NSNK8	NWK00285915	11/22/2010 12:50
MC16003NSNK8	NWK00281151	11/1/2010 13:25	MC16003NSNK8	NWK00286874	11/24/2010 8:39
MC16003NSNK8	NWK00279596	10/22/2010 15:33	MC16003NSNK8	NWK00286873	11/23/2010 14:44
MC16003NSNK8	NWK00279595	10/22/2010 15:30	MC16003NSNK8	NWK00286872	11/23/2010 14:42
MC16003NSNK8	NWK00281149	11/1/2010 13:16	MC16003NSNK8	NWK00287195	11/24/2010 11:59
MC16003NSNK8	NWK00280969	11/1/2010 13:16	MC16003NSNK8	NWK00287199	11/24/2010 12:53
MC16003NSNK8	NWK00280967	11/1/2010 12:52	MC16003NSNK8	NWK00287196	11/24/2010 12:14
MC16003NSNK8	NWK00280968	11/1/2010 12:58	MC16003NSNK8	NWK00287200	11/24/2010 12:56
MC16003NSNK8	NWK00281152	11/1/2010 13:34	MC16003NSNK8	NWK00287198	11/24/2010 12:50
MC16003NSNK8	NWK00282630	11/8/2010 13:23	MC16003NSNK8	NWK00287197	11/24/2010 12:20
MC16003NSNK8	NWK00282628	11/8/2010 12:59	MC16003NSNK8	NWK00288798	12/3/2010 9:54
MC16003NSNK8	NWK00282629	11/8/2010 13:17	MC16003NSNK8	NWK00288797	12/3/2010 9:36
MC16003NSNK8	NWK00283021	11/12/2010 11:38	MC16003NSNK8	NWK00288799	12/3/2010 9:45
MC16003NSNK8	NWK00283020	11/12/2010 8:20	MC16003NSNK8	NWK00288916	12/6/2010 16:03
MC16003NSNK8	NWK00283023	11/12/2010 12:08	MC16003NSNK8	NWK00288920	12/6/2010 11:30
MC16003NSNK8	NWK00283022	11/12/2010 12:08	MC16003NSNK8	NWK00288918	12/6/2010 11:30
MC16003NSNK8	NWK00284116	11/12/2010 12:41	MC16003NSNK8	NWK00288919	12/6/2010 11:30
MC16003NSNK8	NWK00284114	11/12/2010 12:08	MC16003NSNK8	NWK00284115	11/12/2010 12:32
MC16003NSNK8	NWK00284619	11/16/2010 8:06	MC16003NSNK8	NWK00288915	12/6/2010 16:03
MC16003NSNK8	NWK00284618	11/16/2010 8:11	MC16003NSNK8	NWK00288917	12/6/2010 11:30

TP-1156
Issued 03-11

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Technical Bulletin

Replacing the Torque Plate-to-Spindle Flange Fasteners on Meritor MC16 Series Tag Axles on Certain Motor Coach Industries (MCI®) J-Coach Units

Hazard Alert Messages

Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

⚠ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle only supported by jacks. Jacks can slip or fall over. Serious personal injury and damage to components can result.

You must follow the unitized wheel-end maintenance and inspection procedures provided in this bulletin to prevent serious personal injury and damage to components. The unitized wheel end is sealed and greased for life and does not require lubrication. If you disassemble, or attempt to repair or lubricate a unitized wheel-end assembly, you will void the Meritor warranty.

⚠ ASBESTOS AND NON-ASBESTOS FIBERS WARNING

Some brake linings contain asbestos fibers, a cancer and lung disease hazard. Some brake linings contain non-asbestos fibers, whose long-term effects to health are unknown. You must use caution when you handle both asbestos and non-asbestos materials.

How to Obtain Additional Maintenance and Service Information

Refer to Maintenance Manual MM-0409, Wheel-End Components, Meritor Conventional and Unitized Wheel Ends; and Maintenance Manual MM-0467, DiscPlus™ EX225 Air Disc Brake. To obtain these publications, visit Literature on Demand at arvinmeritor.com.

Replacing the Torque Plate-to-Spindle Flange Fasteners

This technical bulletin provides procedures for removing the wheel end hardware and replacing the torque plate-to-spindle flange fasteners on certain Motor Coach Industries (MCI®) J-Coach units equipped with MC16 Series tag axles. Support of 8 hours (SRT) will be given for this repair.

Parts Required

The required replacement fasteners, sealants and lubricants will be sent to your repair facility through the OEM. The following parts are required for this fastener replacement program.

Table A: Parts for Fastener Replacement

Description	Part Number	Quantity
Fasteners	15X1854	18
Red Loctite® 518, 50 ml Tube	2297S6467	2
Never-Seez Anti-seize Compound, 1 oz. Tube	A1199X2988	1
White Grease, 3 g Packet	2297P8414	2

Contact the OEM For Claim Reimbursement

Please provide the following information to the OEM when submitting claims for payment.

- Customer Claim #
- VIN
- In-service Date
- Repair Date
- Odometer Reading
- Axle Serial #
- Work Detail
- Tracking Number for Returned Fasteners
- Labor Rate

Disassembly Procedures

Refer to Figure 1 for an illustration of the MC16 Series tag axle wheel end.

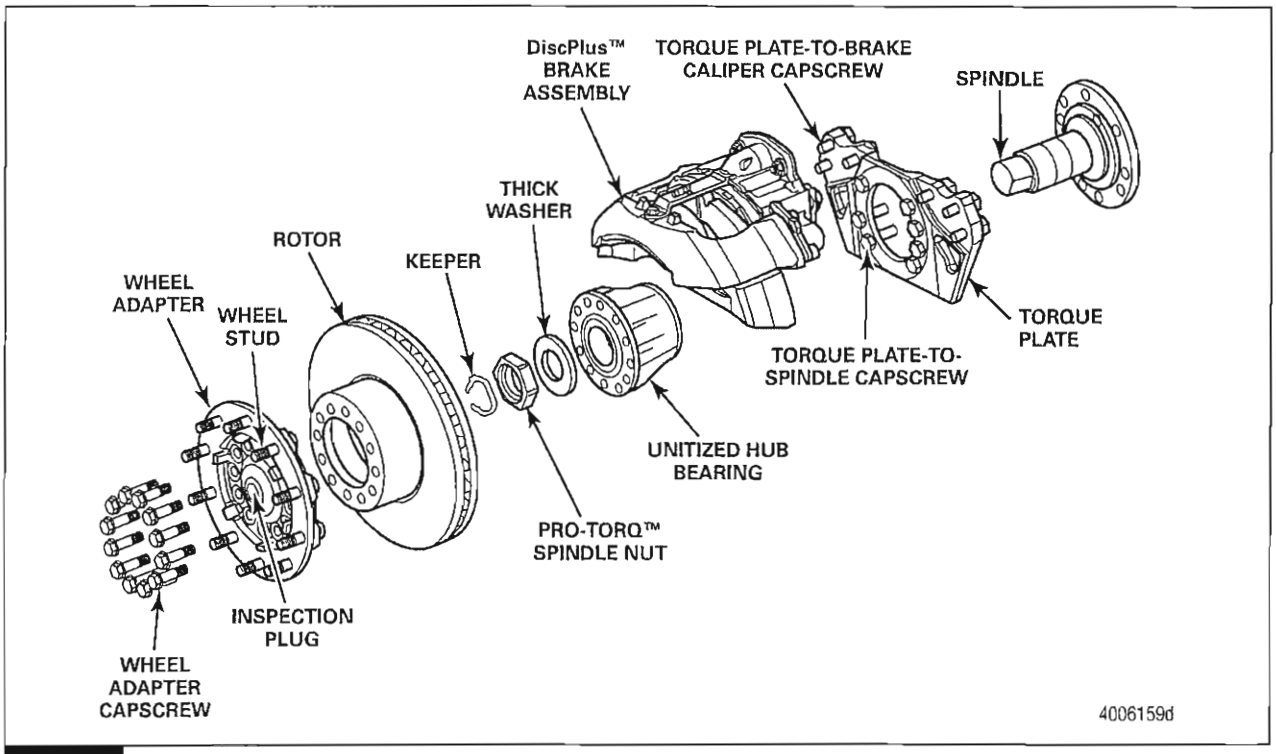

Figure 1

Step 1 Tire and Wheel Assembly Removal

1. Wear safe eye protection. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Set the parking brake.
2. Raise the tag axle until both the wheel ends are off the ground. Support the vehicle with safety stands.
3. Remove the tire and wheel assembly. Refer to the OEM instructions for correct procedures.

Step 2 Caliper Assembly Removal

1. Remove the brake pads as follows.
   A. Use a 17 mm wrench to remove the pad retainer bolt. Remove the pad retainer. Figure 2.
   B. Visually inspect the pad retainer.
      - **If the pad retainer is bent or damaged:** Replace the pad retainer.
   C. Remove the pad springs.

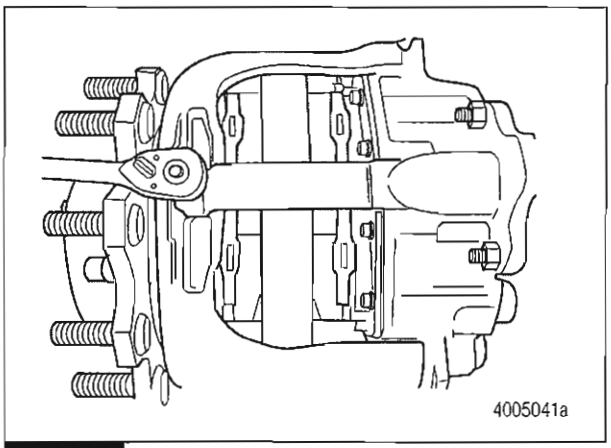

Figure 2

D. Remove the outboard brake pad from the caliper assembly and mark the brake pad "outboard". Figure 3.

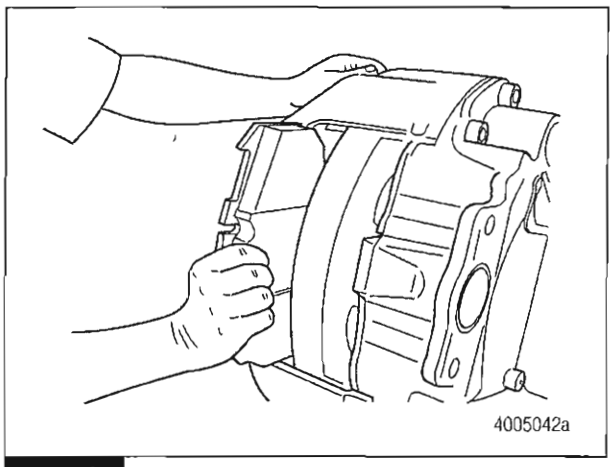

Figure 3

E. Remove the inboard brake pad from the caliper assembly and mark the brake pad "inboard".

2. Use a 30 mm socket wrench or extension adapter (Meritor tool number 3256-5-1241) to remove the six carrier bolts and washers. Carefully remove the caliper assembly from the axle. Figure 4.

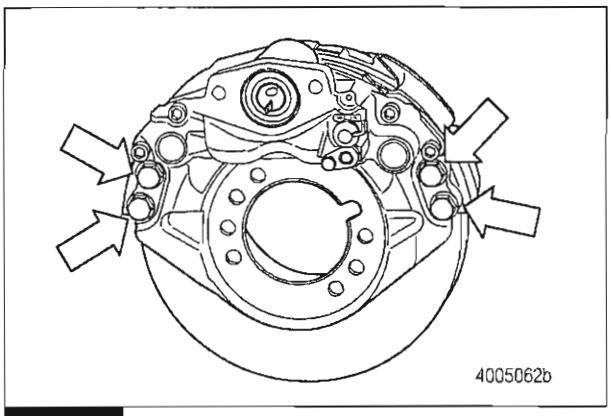

Figure 4

Step 3 Wheel Adapter Removal

1. Remove the 10 wheel adapter bolts. Figure 1.
2. Remove the wheel adapter.

Step 4 Unitized Hub Bearing and Rotor Assembly Removal

NOTE: The rotor and unitized hub can be removed together as an assembled unit.

1. Use the following procedure to remove the PRO-TORQ™ nut.

A. Remove the keeper from the PRO-TORQ™ nut. Use a screwdriver to pry out the keeper arm from the groove on each side of the nut until the keeper is released.

B. Use a 3.5" socket wrench to remove the PRO-TORQ™ nut. Figure 5.

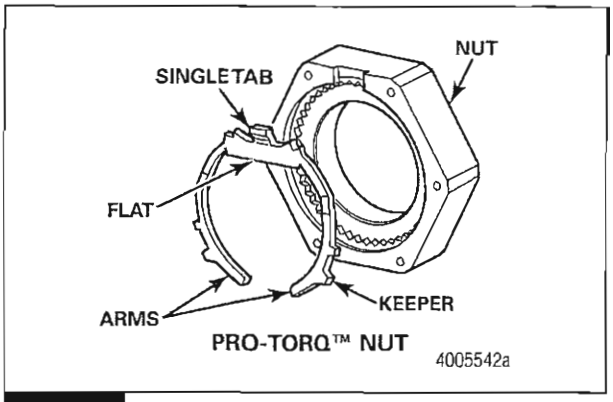

Figure 5

2. Remove the thick washer from the spindle. Remove the unitized hub bearing and rotor assembly.
3. Inspect the rotor for cracks and signs of wear. Replace the rotor, if necessary. Refer to Maintenance Manual MM-0409 for correct rotor removal procedures.

Step 5 Torque Plate-to-Spindle Flange Fastener Removal

1. Remove the torque plate-to-spindle flange fasteners. Figure 1.
2. Set the fasteners aside to destroy once the repair is complete.

Assembly Procedures

Step 1 New Torque Plate-to-Spindle Flange Fasteners Installation

1. Using the new fasteners provided in the kit supplied by the OEM, assemble the torque plate to the spindle flange.
2. Tighten the new fasteners to 326-420 lb-ft (440-570 N•m).
3. Inspect the spindle for corrosion. Clean the spindle with an emery cloth.

Step 2 Unitized Hub Bearing and Rotor Assembly Installation

1. Inspect the unitized hub bearing and verify the following. Replace items as necessary.

A. All bearing seals and the O-ring seal are clean and show no signs of damage.

B. The O-ring is correctly installed into the groove at the inner bearing shoulder prior to installation onto the spindle.

C. The bearing mounting face and bore are clean with no dirt or dust.

D. Ensure that the ABS tooth wheel is not damaged or bent.

2. Apply a light coat of anti-seize lubricant such as Molykote-D paste to the bearing bore and to the O-ring before installing the hub onto the spindle. Do not apply any lubricant to the spindle or on the bearing end face. The spindle should be clean and free of any contamination. Figure 6.

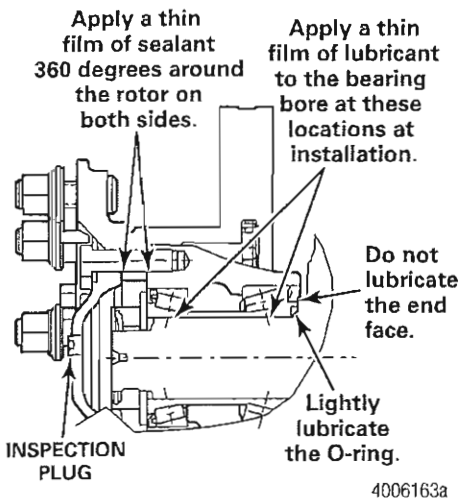

Figure 6

3. Verify the O-ring is correctly seated before installing the bearing onto the spindle.

4. Install the hub and rotor assembly onto the knuckle spindle. Use care to avoid damaging the O-ring on the spindle threads. Figure 1.

⚠ CAUTION

Remove the keeper from the PRO-TORQ™ nut before you attach the nut to the axle spindle or tighten and loosen the nut to prevent damage to the nut and axle spindle.

5. Remove the keeper from the PRO-TORQ™ nut before you attach the nut to the axle spindle. Install the thick washer and the PRO-TORQ™ nut onto the spindle. Figure 7.

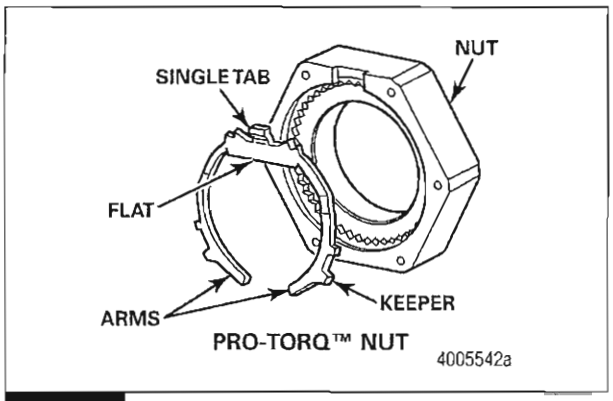

Figure 7

6. Rotate the bearing while tightening the PRO-TORQ™ nut to 600 ± 75 lb-ft (813 ± 101 N•m).

7. Install a keeper against the nut with the orange side facing OUT. Align the flat of the keeper with the flat on the spindle. Insert the single keeper tab into the undercut groove on the nut. Engage the mating teeth. Figure 7.

8. Use a screwdriver to compress and insert the keeper arms one at a time into the undercut groove on the nut. Ensure that the keeper tab and arms are fully seated into the undercut groove. Figure 7.

Step 3 Wheel Adapter Installation

⚠ WARNING

Take care when you use Loctite® adhesive to avoid serious personal injury. Read the manufacturer's instructions before using this product. Follow the instructions carefully to prevent irritation to the eyes and skin. If Loctite® adhesive material gets into your eyes, follow the manufacturer's emergency procedures. Have your eyes checked by a physician as soon as possible.

Carefully follow the manufacturer's application and curing (drying) instructions when you apply an anaerobic sealant. Incorrectly applied sealant or an insufficient cure time can cause fasteners and mating surfaces to loosen during vehicle operation. Serious personal injury and damage to components can result.

1. Apply a bead of anaerobic sealant such as Loctite® 518 Gasket Eliminator 360 degrees around the outboard facing rotor flange on the inside of the bolt circle. Figure 8.

   - **If hub is separated from the rotor:** Apply sealant on both rotor flange face surfaces and on the inside of the bolt circle.

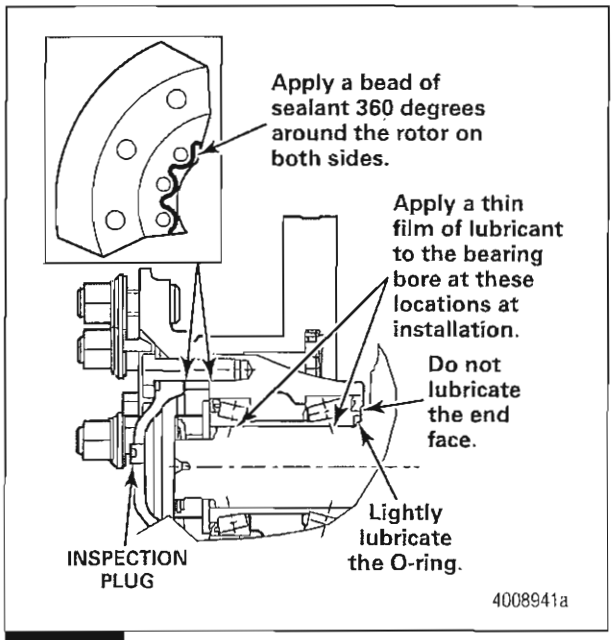

Figure 8

2. Apply the sealant before you assemble the wheel adapter to prevent moisture from entering into the bearing. Do not use any type of gasket sealant other than anaerobic sealant.
3. Align the holes and install the wheel adapter and fasteners. Slightly tighten the fasteners in a star pattern to seat the rotor and wheel adapter correctly. Tighten the fasteners in a star pattern to 275 ± 25 lb-ft (373 ± 34 N•m). ❶
4. Using a dial indicator, verify the end play of the new bearing. The end play must be 0-0.002-inch (0-0.0508 mm).
5. Install the wheel and check if the anti-lock brake system is operating correctly.
   - **If the warning lamp remains illuminated or comes on during vehicle operation:** Check for possible tooth wheel damage or a sensor gap out of specification. Refer to your vehicle ABS version and the appropriate maintenance manual.

Step 4 Caliper Assembly Installation

1. Place the caliper assembly over the rotor.
2. Align the caliper carrier bolt holes. Assemble the caliper to the torque plate using the carrier bolts and washers. Using a 30 mm socket wrench or extension adapter (Meritor tool number 3256-S-1241) tighten the six carrier bolts to 350-450 lb-ft (474-610 N•m). Refer to the torque table at the end of this bulletin for the correct torque wrench setting when using the extension adapter. Figure 9. ❶

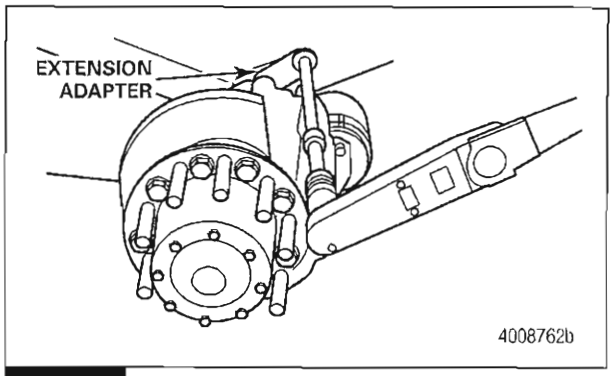

Figure 9

3. Check the caliper assembly to verify that it slides by hand.
4. Install the brake pads and set the initial brake pad-to-rotor clearance. Refer to Maintenance Manual MM-0467 for correct adjustment procedure.

Step 5 Wheel and Tire Assembly Installation

1. Mount the wheel and tire assembly onto the hub assembly.
2. Install the lug nuts and tighten to OEM specification.
3. Lower the unit and perform a road test to verify the repair.
4. Recheck the torque on the wheel lug nuts after the road test and adjust if necessary.

Return the Removed Fasteners

Mail the completed limited warranty claim form and the existing (replaced) torque plate-to-spindle flange capscrews to Motor Coach Industries' (MCI®) warranty department at the following address to receive credit for the hours used to complete this task.

Motor Coach Industries (MCI®) Fleet Support

Attn: Warranty Department

7001 Universal Coach Drive

Louisville, KY 40258

Fax Number 800-360-8886

Contact the Motor Coach Industries (MCI®) Fleet Support Technical Center at 800-241-2947 for any further information.

Torque Wrench Setting Using Extension Adapter 3256-S-1241

Extension adapter 3256-S-1241 is a service tool designed to provide easier access to the axial type air disc brake (ADB) carrier-to-torque plate bolts. Refer to Figure 10 for an illustration of this tool. When using this extension adapter, the torque wrench setting must be altered to obtain accurate tightening of the carrier-to-torque plate bolts.

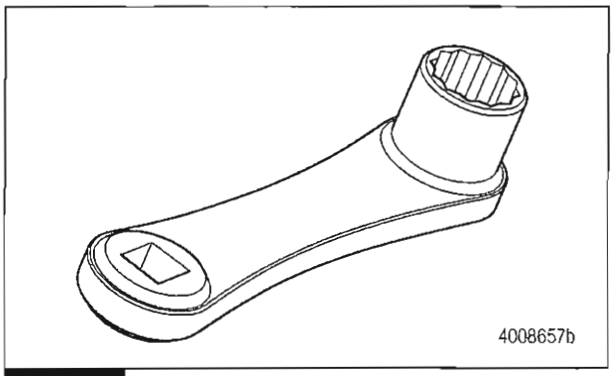

Figure 10

Table B: Torque Setting when Extension Adapter is Used

Description	lb-ft	N•m
Carrier Bolt Standard Torque Wrench Setting	450	610
2-Foot Torque Wrench Setting with 7-inch Extension Adapter	348	472
3-Foot Torque Wrench Setting with 7-inch Extension Adapter	377	511
4-Foot Torque Wrench Setting with 7-inch Extension Adapter	392	531
5-Foot Torque Wrench Setting with 7-inch Extension Adapter	402	545

ArvinMeritor™

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Printed in USA

TP-1156
Issued 03-11
(16579)