Technical Service Bulletin						
Date Issued         Model Year(s) Affected			Model(s) Affected		TSB #	
10/19/2006	4/04 - 12/04		All Spartan		271	
Brand					Туре	
All	American Star		Mountain Aire		All 🗖	ТТ 🗖
	Dutch Star		Kountry Aire		FW□	C A 🗖
	Kountry Star		Essex		D P 🗖	DB
Scottsdale	Northern Star		London Aire		D1 <b>–</b>	D D <b>–</b>
<ul> <li>Air Conditioning &amp; Heating</li> <li>Electrical Components</li> </ul>						
Appliances & Accessories			Exterior Components			
□ Cabinets & Furniture			□ Interior Components			
□ Chassis Components			Plumbing & Bath Components			
Construction Com	□ Windows, Awnings, Vents, & Doors					
Description of Problem						
TRW, a supplier of tie rod and cross tube assemblies notified ArvinMeritor that a number of tie rod assemblies supplied to us will experience an environmental degradation of the rubber boot seal assembled to the tie rodIt has been described as boot seals not holding grease do to cracks or a "dry-rot" appearance. TRW has determined that this issue is not a safety related concern as the tie rod has sufficient capacity to function for multiple greasing cycles, even after boot degradation but it does affect customer satisfaction.						
Recommended Solution						
	mers of the potential condi for the condition. See Man directly for addition	ufacturer		ctions. Co		

If you have any questions regarding this T.S.B., please contact a Warranty Service Representative at Newmar Corporation.

ArvinMeritor

2135 W. Maple Rd. Troy, MI 48084 arvinmeritorinc.com

September 21, 2005

<Name> <Title> <Company> <Address> <City, State Zip>

Dear <Name>:

This is to notify you of a potential field issue regarding front axles manufactured by ArvinMeritor at our Newark, OH facility and joint venture facility in Monterrey, Mexico.

#### **Description of Issue:**

TRW, a supplier of tie rod and cross tube assemblies notified ArvinMeritor that a number of tie rod assemblies supplied to us will experience an environmental degradation of the rubber boot seal assembled to the tie rod. This error potentially affects ArvinMeritor axles built from April 2004 through December 2004 with tie rod ends displaying a 3 digit date code beginning with 4D, 4E, 4F, 4G or 4H stamped on the ball socket assembly cap. See figure 4 for details of date code stamping.

The failure mode, if it exists, will be observed during normal tie rod greasing intervals. It has been described as boot seals not holding grease due to cracks or a "dry-rot" appearance. TRW has determined that this issue is not a safety related concern as the tie rod has sufficient capacity to function for multiple greasing cycles, even after boot degradation. However, it needs to be remedied as it does affect customer satisfaction. The environmental attack will show up as early as seven months after the boot seal manufacture date if the condition exists.

#### Remedy:

The suggested remedy is to alert the affected customers of the potential condition and to recommend that at the next greasing cycle the tie rod end be inspected for the condition shown in the figures one and two below. If the degradation condition is found, then replacement of the tie rod end only (not the cross tube) should be accomplished. It has been observed that one or both tie rod ends could be affected per vehicle. Also, inspect the tie rod end to ensure it

is a TRW component. Please refer to figures 3 and 4 for identification of TRW tie rod end assemblies.

**NOTE:** There is a potential for a false diagnosis to occur. Many times the tie rod will receive exposure to primer and / or topcoat paint. This paint will subsequently crack in the field. Cracked paint by itself does not indicate anything wrong with the boot; the issue describe herein is contained in the rubber compound itself. Refer to figures one and two for examples of boot degradation.

#### Labor and Handling Allowance:

Pre-established repair methods and SRT's, along with the customary administration charges will apply. Disassembly and reassembly instructions are contained in the ArvinMeritor front axle maintenance manual (MM2) located on the ArvinMeritor web site under Products and Services/Tech Library/Manuals/Axles/Front Non-Drive Steer Axles, or by following the link: <u>http://www.arvinmeritor.com/tech\_library/techlib\_home.asp?id=19</u> and choosing the Front Non-Drive Steer Axle link on the left hand side of the page.

## **Claims for Credit:**

Repair facilities should call ArvinMeritor's **OnTrac Customer Service Center at 1-866-668-7221** before starting the repair procedure. OnTrac will need the following information in order to start a case number and give the repair facility the okay to proceed with the work.

- Reference to the vehicle manufacturer's program number if applicable.
- 17-digit vehicle identification number (VIN).
- ArvinMeritor axle serial number.
- Vehicle owner's name, address, and telephone number.
- Vehicle in-service date.
- Repairing facility name, address, and telephone number.
- Repair date.
- Itemized individual costs such as parts, labor, and handling.

**NOTE:** If an owner has difficulty finding a repair facility, please contact OnTrac for assistance. OnTrac will work with them to find a repair facility in their area that can perform the work.

For questions regarding claim processing contact OnTrac at 1-866-668-7221 (US and Canada) between 8AM and 8PM EDST Monday through Friday, and between 9AM and 5PM EDST on Saturday.

# Availability of Replacement Parts and Service Instructions:

OnTrac will coordinate shipment of replacement kits at no cost to the repair facility once the axle serial number confirms the product as an affected axle.

## **Removed Material Disposition:**

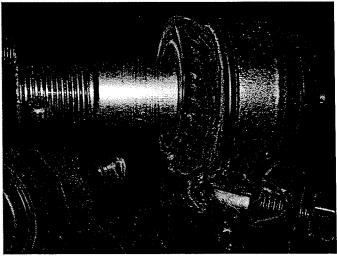
100% return of product is requested by TRW.

# **Communication:**

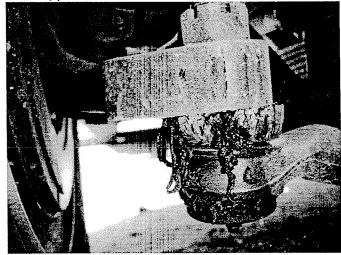
Please call OnTrac at 1-866-668-7221 on any questions that you might have regarding this notice.

Sincerely, Fruck Cockoon

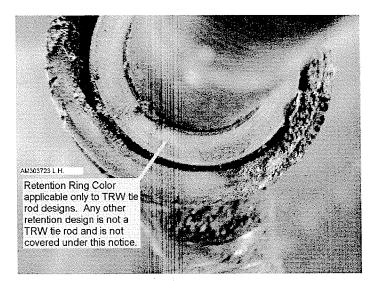
Frank Cookson Service Manager Specialty Products Figure #1 - Typical condition after environmental attack, disassembled from vehicle:



#2 - Typical condition after environmental attack, as viewed on vehicle:



**Figure #3 – Identification of TRW tie rods** (green, pink, yellow or tan color of the nylon ring that is molded into the top of the boot seal varies by part



number): Identification of TRW tie rods continued...

Figure 4: Identify the tie rod end as a TRW part before the removal of the ball stud from the arm. This can be done with a measurement of the swage diameter while the part is still assembled on the vehicle. A measurement of 1-7/8" or 2-1/8", along with the "TRW" stamp and the date code on the cap, can verify that it is a TRW part

