72185 COUNTY ROAD 3 NAPPANEE IN 46550

NEWMAR CORPORATION FAX. 800.858.4924 219.773.2007 WARRANTY DEPARTMENT

TECHNICAL SERVICE BULLETIN						
Date Issued Model Year(s) Affected 1998 & 1999	Model(s) Affected Spartan DP's	TSB # 194				
Brand		Туре				
American Star	Dutch Star	All O TTO FW				
Mountain Aire Mountry Aire	London Aire	CA DP DB				
 Air Conditioning & Heating Appliances & Accessories Cabinets & Furniture 	omponents nponents					
Chassis Components	Plumbing & Bath Components					
Construction Components	Windows, Awnings, Vents & Doors					
Description of Problem						
Tuthill Transport Technologies TSB #000112-01 - Gussets on cradle for the bell crank and idler crossmember. Units affected are Spartan chassis with IFS front suspension.						
Recommended Solution						
See attached Tuthill TSB.						



9098 West 800 South, P.O. Box 600 Brookston, Indiana USA 47923 www.tuthill.com

Dear Granning Air Suspension Owner:

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

Tuthill Transport Technologies (formerly Granning Air Suspensions) has determined that a defect, which relates to motor vehicle safety, exists in vehicles built between April 1, 1998 and March 31, 1999 in the Front Independent Suspension of your motor home. We have identified a suspension problem that could exist in your suspension. The problem is a stress fracture between the front cross-member and either (or both) the bell crank or idler arm cradle housings on the cradle. If this condition exists, then steering could be affected on your motor home.

To prevent the failure of the cross-member Tuthill Transport Technologies will review your motor home for this condition. The repair location will be determined by your location across the country. Tuthill Transport Technologies will assist you in finding the appropriate repair location.

Instructions for the inspection will be sent to the repair site once a site has been found in your area at no charge to you the customer. Contact Tuthill Transport Technologies on our "Customer Service" number 800-255-7824 (ext. # 390). The labor time to review your motor home for this issue is from 2 to 4 hours depending on the repair required. Tuthill Transport Technologies will pay for this service at the repair location. Proper information will be required at each location for this review. Please be ready to provide the repair site the following information: Motor home manufacturer, vehicle identification number (VIN), and mileage. This information will assist us in completing this review on a timely basis.

The manufacturer of your vehicle has provided us with your name and address for us to contact you for this repair. After contacting Tuthill Transport Technologies or your dealer and are still not satisfied with your repair, you may wish to write the Administration, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590, or call 800-424-9393 (Washington, D.C. residents use 366-0123).

If you have sold or traded your vehicle, please furnish us complete name and address of the person (dealership) you sold or traded your vehicle to.

Contact Tuthill Transport Technologies on the Customer Service number 800-255-7824 (Ext. # 390) or send the information to Tuthill Transport Technologies, PO Box 600, Brookston, IN 47923, ATTN: Customer Service

We are sorry for this inconvenience; however, we have taken this action in the interest of your safety and continued satisfaction of our product.

Tuthill Transport Technologies

file: recallownerletter-cross-member

Date: 1-27-00

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Technical Service Bulletin

SUBJECTS: 1) Gussets on Cradle for the Bell Crank and Idler Crossmember

APPLIES TO: All Spartan chassis equipped with suspension models

IFS1320-HP, IFS1320-SP, IFS1370-HP, and IFS1370-SP manufactured between April 1, 1998 and March 1, 1999.

CONDITIONS: 1) Fractures may occur at the connection locations of the bell crank and idler arm crossmember. While the fracture does not cause any immediate deterioration in steering control, over time this will result in a gradual reduction in steering response. Failure to repair crossmember can eventually lead to complete loss of steering control of the vehicle.

CORRECTION: Applicable to both driver and passenger sides.

1) Gussets added to reinforce the crossmember connection for the bell crank and idler arm. Reinforcement added to prevent potential cracks from occurring at the crossmember connection.

SERVICE PROCEDURE:

Please read this procedure carefully and completely before servicing. The procedure is written for both sides of the vehicle. The allowable labor charges for welding in two #8516 gussets is not to exceed 2 hours @ \$50.00/hr per suspension. If you have questions or require additional labor or material expense, contact Tuthill Transport Technologies Customer Service at (800) 255-7824 ext. 390.

PART LIST: Service Kit P/N K700524

QTY	Part Number	Description
2	8516	Gusset
1	D700523	Instructions

This technical bulletin should only be used by trained technicians that have the equipment, tools, safety instructions, and training to service the suspension properly and safely. This bulletin is to inform technicians of a condition that may occur on a suspension and does not apply to all suspensions.

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Identification

Record vehicle and suspension information on the Claim Form before beginning service work.

The suspension model and serial number are stamped on an aluminum tag (See Figure 1) that is riveted to the driver side steering arm mount on the subframe assembly (See Figure 2).

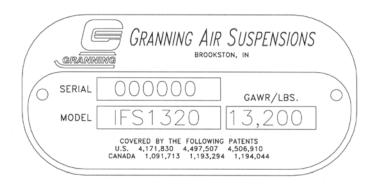


Figure 1: Suspension Identification

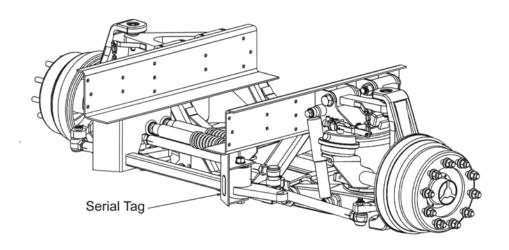


Figure 2: Suspension Identification Location

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Jack Point Locations

The recommended jack point locations are shown in Figure 3. The jack must have sufficient return stroke to lower the chassis below the suspension ride height to actuate the HCV to inflate the air springs. Placing a jack under the lower control arm or the steering knuckle can result in an unstable condition.

On vehicles equipped with hydraulic jacks, these may be used to lift to the chassis to raise the tire off the ground.

Safety stands should be placed under the chassis frame rail and the chassis should be lowered onto the safety stands prior to servicing the wheel bearings.

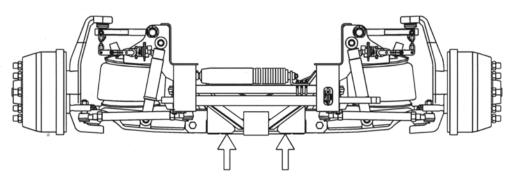


Figure 3: Jack Point Locations

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Adding Gussets to the Cradle Steering Box Crossmember

Add #8516 Gussets to bell crank and idler arm crossmember connections.

Preparation

- 1. Set the parking brake and block the drive wheels to prevent vehicle movement.
- 2. Raise the vehicle until the front wheels are off the ground. Support raised vehicle with safety stands. Do not place jacks or safety stands under the lower control arms to support the vehicle.

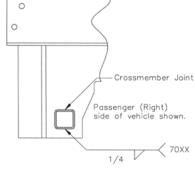
WARNING: Never work under a vehicle supported by only a jack. Jacks can slip or fall over and cause serious personal injury. Always use safety stands.

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3. Deflate the air springs.

Inspection – Crossmember Joint

- Clean and remove all dirt, oil, undercoating and road tar from the weld area where the crossmember is connected to the steering component brackets.
- While turning the wheels from left to right, check weld joints (both sides) for cracking. If no cracks are observed, proceed with the installation of the gussets.
- 3. If a crack is suspected but not readily visible, use a dye penetrant for crack indication. If dye penetrant is not available, back grind the weld and repair per item 5. If no cracks are observed, proceed with the installation of the gussets.
- 4. If weld is cracked all the way around the perimeter of the crossmember (or crossmember is separated from the steering bracket completely) call Granning Customer service for further instructions at 800-255-7824.
- 5. If the weld is cracked but not all the way around such the end of the crossmember is not separated for the steering brackets, repair the weld as follows:
 - a) Remove the cracked weld material by grinding.



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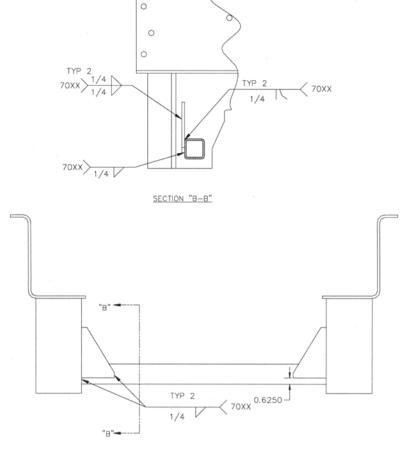
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- b) Repair the joint by welding the crossmember to the steering bracket using AWS 70,000 tensile weld wire (gas shielded) or electrode (flux shielded). Remove weld spatter and slag as required.
- 6. Once the weld repair is made, proceed with installation of the gussets.

Installation of Gussets

- 1. Clean area where gusset is to be installed. All dirt, oil, undercoating and road tar is to be removed from the area where the gussets are to be installed by welding.
- 2. Locate Gussets into position as shown in the drawing below. Hold the gussets in position using "c-clamps, weld clamps, or similar device.
- 3. Weld the gussets in place per the drawing below.
- 4. Once the gussets are cool, repaint and re-undercoat as required the area of the repair.



FRONT VIEW (CROSS MEMBER & BELL CRANK/RELAY ARM HANGERS)

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Claim Form

Vehicle Information				
Coach Manufacturer (Che	eck one):	Fleetwood	□ Gulfstre	am Newmar
		Other	· · · · · · · · · · · · · · · · · · ·	
Chassis VIN (last five	e digits only):			
Suspension Model (C	heck one):			
□ IFS1320-HP □	IFS1320-SP	□ IFS137	′0-HP □	IFS1370-SP
Suspension S/N (six of	ligits):			
Mileage:	,			
Replacement Inform	ation			
Date: C	Contact Name:			Phone:
Location:				
Address:				
The allowable labor charg \$50.00/hr per suspension. limit. Tuthill Transport Toil.	Prior written	approval is red	quired if labor	charges will exceed this
Labor Hours:		(Attach	copy of invoice	ce if available)
** Reimbursement for and returned to Tuti				this form is completed Il related bills.
FAX:	Attn: Custon RE: IFS Cra (219) 279-239	dle Modifica	tion	
MAIL:	Tuthill Trans 9098 W. 800 Brookston, II Attn: Quality	South N 47923	logies	

Call (800) 255-7824 ext. 390 and ask for Customer Service for additional assistance.

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