



# Spartan Motors Chassis, Inc.

SERVICE BULLETIN

RSB13-250-004

NHTSA Id: 13V-441

10/24/2013

**SUBJECT:** Spartan Motors Chassis, Inc. has been made aware of a casting condition related to the lower control arms of the independent front suspension supplied by Link Manufacturing.

**CONDITION:** Lower control arms are cracking.

**APPLIES TO:** This bulletin applies to chassis cabs that were altered by Spartan Motors Chassis, Inc. between February 17, 2011 and August 8, 2013. Altered vehicles are equipped with a control arm supplied by Link Manufacturing.

**CORRECTION:** Replace lower control arms

**LABOR ALLOCATION:** 2.0 hrs.

**PARTS NEEDED:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2416-001	Lower Control Arm

**Kit # S-2416-001 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	800M1113	Service Kit, LCA
1	RSB13-250-004	Document Information

**GENERAL INSTRUCTIONS:**

Please thoroughly review entire work procedure before starting work. If there are questions and/or concerns with steps defined in this procedure, contact Spartan Motors Chassis, Inc. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.

Technical Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of product specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



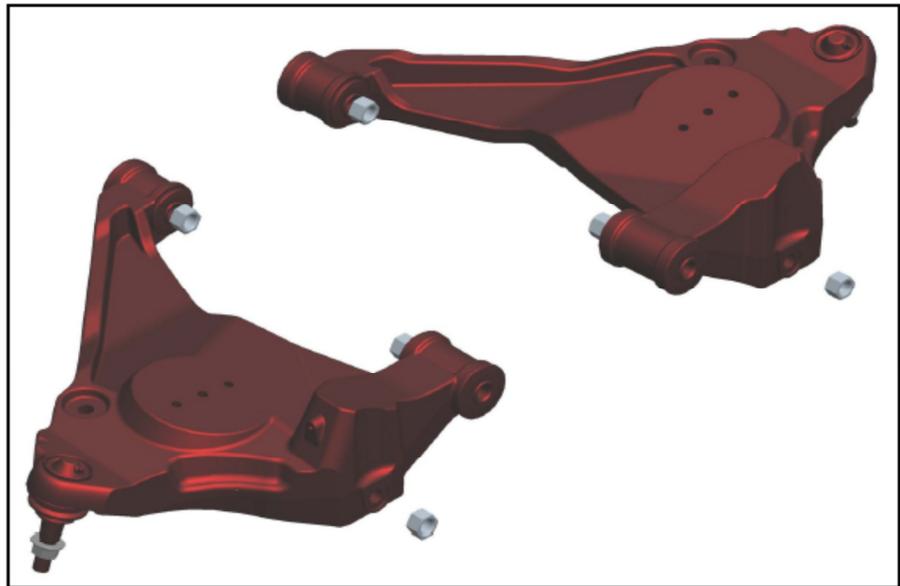
LOWER CONTROL ARM REPLACEMENT MANUAL



# Glaval Titan II LF Bus

## Replacement Lower Control Arms

### Link Kit 800M1113



For Replacing Lower Control Arms in Link Suspension 8M000126  
Part of Glaval's Titan II LF Bus

80003149  
SEP 16, 2013

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Read this manual before replacing Lower Control Arms in your UltraRide® suspension.



223 15th Street N.E.  
Sioux Center, Iowa 51250

For questions with your UltraRide suspension, please contact us toll free at (800) 222-6283

Visit [www.LinkMfg.com](http://www.LinkMfg.com)

## INTRODUCTION

All information in this manual is based on the latest information available at the time of printing. Link Manufacturing reserves the right to change its products or manuals at any time without notice. Contact Link at (800) 222-6283 for information on recent changes to products.

Damaged components should be returned to Link with a pre-arranged Returned Goods Authorization (RGA) number through the Customer Service Department. The damaged component may then be replaced if in compliance with warranty conditions.

No alterations of any Link component is permitted without proper authorization from qualified Link personnel.

## SAFETY SYMBOLS and TORQUE SYMBOL

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.	 CAUTION	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
 WARNING	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.		The torque symbol alerts you to tighten fasteners to a specified torque value.

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## LOWER CONTROL ARM REPLACEMENT

This procedure requires a vehicle lift or floor jack, jack stands, and torque tools (refer to Figure 2 for required torque values).

### 1. Disassembly of the Lower Control Arms

- Apply the parking brake. Lift the vehicle up to a comfortable working height. If a vehicle lift is not

#### CAUTION

The vehicle lift can damage the body due to the low ground clearance. Use caution when rolling vehicle lifts under wheels.

- available, jack up the front of the vehicle so the wheels are just touching the ground.
- Lower the vehicle on to jackstands supporting the front frame crossmember. Lower the front lift posts so the front wheels are just off the lift.

#### WARNING

**Serious injury** could occur if components are removed and the vehicle is not well supported. Prior to removing components, make sure the vehicle is secure in the lift and the parking brake is applied.

- To remove air pressure from the springs, first locate the suspension manifold block, located on the driver side frame rail towards the rear of the vehicle.
- Drain the air pressure from the front springs using the Schrader valve at port C of the manifold block.
- After draining air, remove the Schrader valve from port C to relieve any residual pressure. The Schrader valve may be reinstalled immediately after relieving pressure.

#### WARNING

**Serious injury** could occur if components are removed while the air system is pressurized. If maintenance or service is to be done on the suspension, be sure to drain **all** air from system.

Refer to vehicle air system instructions for more information regarding air system controls.

**IMPORTANT! Save all fasteners unless directed to discard them.**

**Most fasteners will be reused with the new control arm.**

- Remove the wheels from front knuckles.
- Remove the height control valve linkage from the lower control arm (LCA).
- Remove the shock and air spring bolts from the LCA. Discard the lock nuts from the shock bolts, retain the bolt and the spacer hex nut that was between the shock and LCA.
- Remove the nut and bushing from the stabilizer bar linkage. Disconnect the stabilizer bar linkage from the stabilizer bar.



## LOWER CONTROL ARM REPLACEMENT

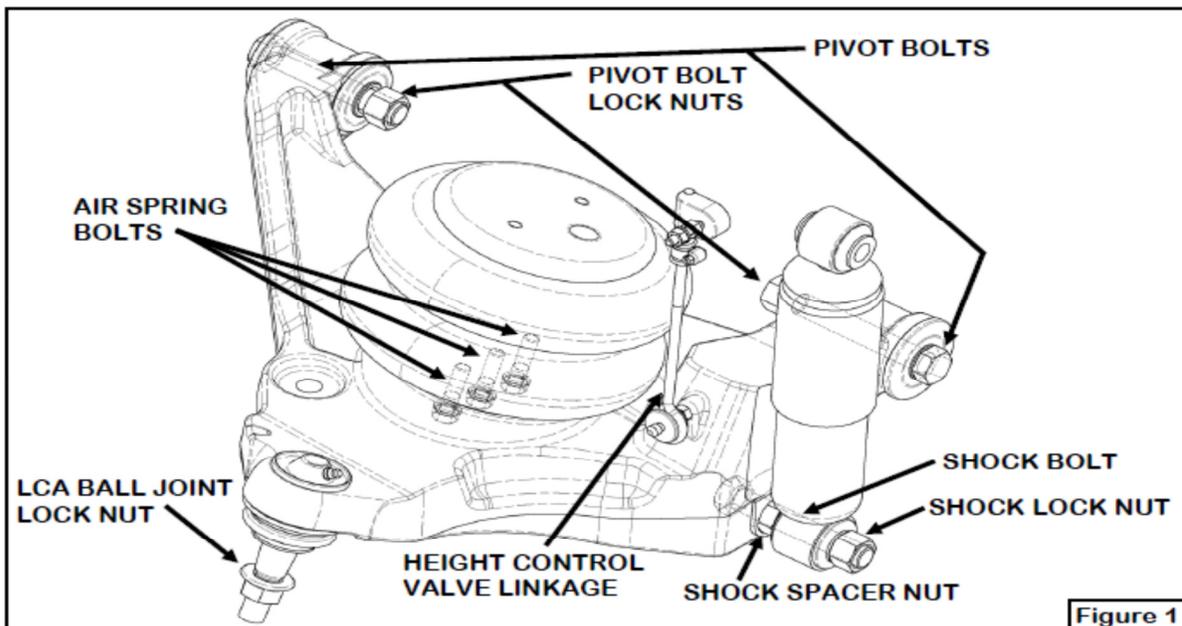
### 1. Disassembly of the Lower Control Arms Continued

- ❑ Remove and discard the nut connecting the LCA ball joint to the knuckle.

#### ⚠ CAUTION

The upper control arm and knuckle will be free to move once the LCA ball joint is disconnected from the knuckle. Secure the knuckle and upper control arm to prevent movement.

- ❑ The LCA can now be removed by removing the pivot bolts connecting it to the frame. Discard the lock nuts from the pivot bolts, retain the bolts for reuse.
- ❑ Repeat this procedure for the opposite side of the vehicle.



### 2. Installation of the New Lower Control Arms

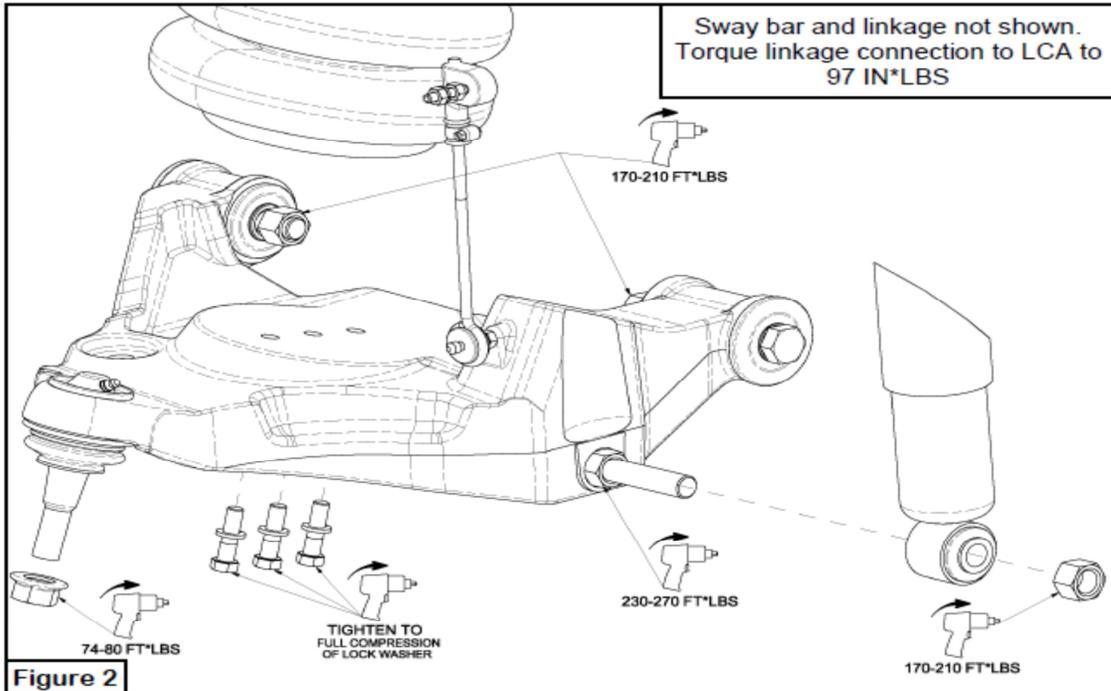
- ❑ Loosely assemble all fasteners, fasteners will be torqued to spec later.
- ❑ Attach the new LCA to the frame.
- ❑ Attach the knuckle to the LCA ball joint.
- ❑ Attach the air spring and shock. Ensure that the shock spacer nut is installed between the shock and LCA.
- ❑ Attach stabilizer bar linkage to stabilizer bar and lower control arm.
- ❑ Attach the height control linkage to the LCA.
- ❑ Reinstall front wheels.
- ❑ Repeat this procedure for both sides of the vehicle.
- ❑ Raise vehicle lift until the suspension has been lifted to design height. See Figure 3.
- ❑ Torque all fasteners to the values specified on Figure 2.

#### ⚠ WARNING

Proper fastener torque is vital to prevent component failures which may result in injury or death.



# LOWER CONTROL ARM REPLACEMENT

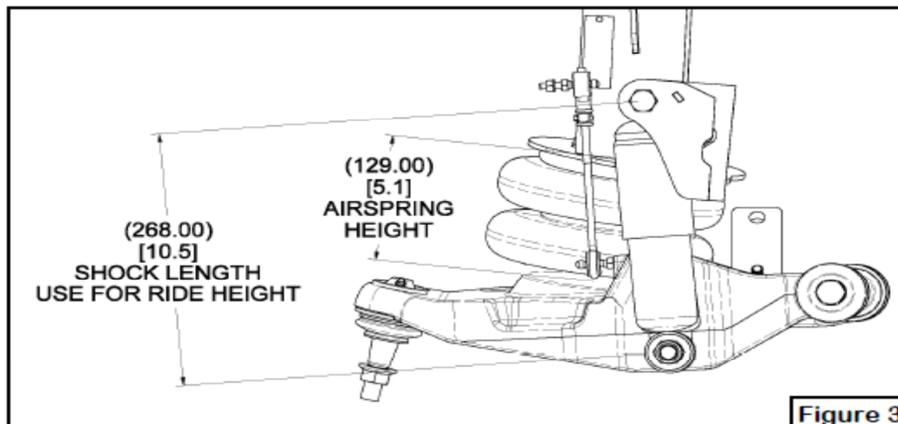


### 3. Verify Proper Installation and Function

- Verify all fasteners have been torqued properly.
- It is recommended the vehicle be cycled to the kneeled (lowered) height once before operation to ensure proper operation.

**⚠ WARNING**

**Proper fastener torque is vital to prevent component failures which may result in injury or death.**

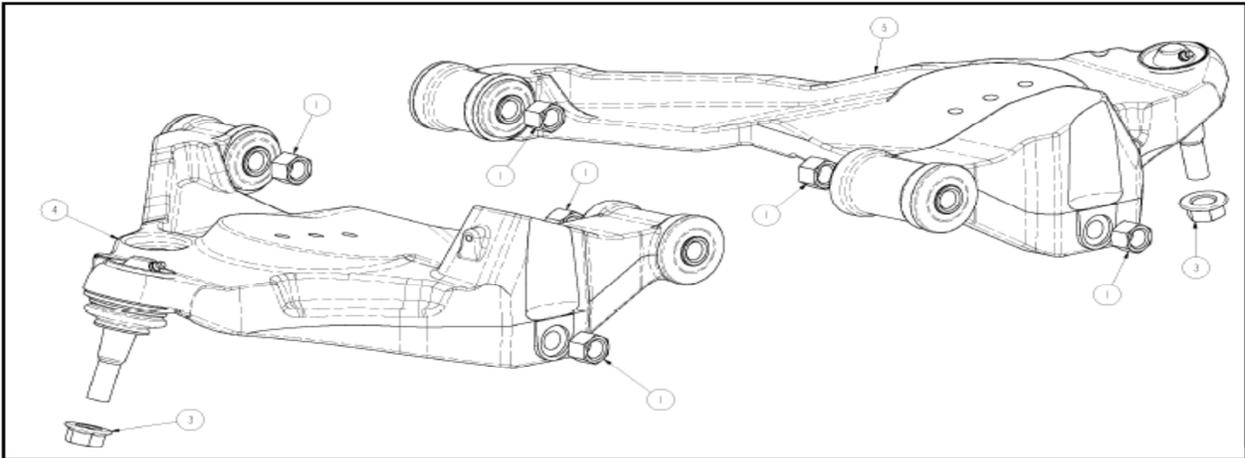


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*Destroy lower control arm to prevent further use and properly dispose of all other removed components.*

## 800M1113 PARTS LIST



ITEM	PART NUMBER	DESCRIPTION	QTY
1	14761608	HEX TOP LOCK NUT, M16 X 2.0, CLASS 10	6
2	80003149	MANUAL-REPLACEMENT, FRONT CONTROL ARMS	1
3	1480-1602	HEX TOP LOCK FLANGE NUT, M16 X 2, CLASS 10	2
4	820M0088	CONTROL ARM ASSEMBLY-LOWER	1
5	820M0089	CONTROL ARM ASSEMBLY, LOWER, PASSENGER	1



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