



BUS SUSPENSION

TECHNICAL BULLETIN

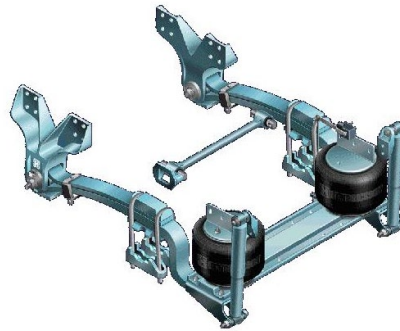
Australia & New Zealand Regions Only

No: 97117-168

Subject: RK Bus Comfort Air Wedge Plate Replacement

Date: August 2007

Revision: B



REAR AXLE MOVED ON THE SUSPENSION

It has been found that some Hino RK buses may experience the rearward movement of the rear axle to the point where, in extreme cases, the rear brake 'S' Cam tube touches the main support member.



Rear Axle Moved



Correct Axle Spacing

The minimum clearance between the main support member and the 'S' Cam tube should be, approximately, between 15 and 20mm.

Customers who are experiencing vehicles where the rear axle has moved rearward, need to replace their existing wedge plate, top cap and "U" bolts. Refer to the "repair instructions".

NOTE: Please note that vehicles that are found to have the original wedge plate tack welded do not require the fitment of this kit. Wedge plates that have been tack welded will not move. Hendrickson Asia Pacific will not accept repair costs, for vehicles where the wedge plate has been tack welded from assembly, where photos are not received with the claim to Hendrickson or the production date of the chassis is after the engineering drawing sign off date that specifies tack welding of the wedge plate.

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REPAIR INSTRUCTIONS

The repair can be affected by fitment of parts contained in kit No. RD-97318-001.
The Rework Kit number is RD-97318-001, which includes:

Component	Item Description	Quantity
98408-009	U-BOLT 7/8"UNF x 12.5" R01	2
98991-011	TOP PAD -R01	2
97069-023	WEDGE SPACER 3deg x 14.5mm R01	2
50765-000-4P	NUT LOCK - 7/8 - (PK 4) -R01	2

The "U" bolt spacer tube for the rear "U" bolts are supplied by Hino Australia.

DISASSEMBLY

1. Chock front wheels.
2. Raise frame of vehicle to remove load from rear suspension.

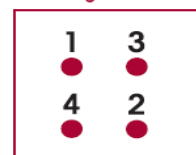
**VEHICLE MUST BE FIRMLY SUPPORTED WITH JACK STANDS PRIOR TO SERVICING.
FAILURE TO DO SO CAN RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE.**

3. Remove rear wheels for access.
4. Verify air is removed from the system and remove height control valve extension rod from valve by removing locknuts and washers.
5. Support the rear axle using a trolley jack to enable height adjustment for disassembly and assembly.
6. Remove the U bolt locknuts and washers.
7. Remove the U bolts.
8. Lower the axle as needed to allow removal of the wedge plate and inspection of all dowel pins.
9. Check the dowel pin locations on the top cap, spring liners, main support member (Z spring), wedge plate and spring seat (**Refer to Figure 7-4**) to ensure the dowel pins have been assembled correctly and to ensure that no damage has been caused to the existing dowel pins. (**Components containing damaged dowel pins must be replaced**)
10. Remove the axle top pad and existing wedge plate.

ASSEMBLY

1. Install the new wedge plate by locating the larger diameter dowel pin into the spring base plate dowel hole. Ensure the thickest end of the wedge is facing the rear of the vehicle.
2. Position main support member assembly on wedge plate, with the main support member assembly centre dowel pin piloting into the smaller diameter hole in top of the wedge plate. Galvanised steel liners must be positioned on the topside of the main support member assembly and underneath side of the top cap as shown in Fig 7-4.
3. Assemble the top pad, wedge plate, axle bottom cap, U bolt spacers (*on rear U bolts only*), washers and locknuts and ensure all locating dowel pins are located correctly in their locating holes. Also ensure that the rear "U" bolts have the spacer tubes fitted. **DO NOT TIGHTEN** U bolt locknuts at this time.
4. Ensure that the assembly on both sides are correct then tighten the U bolt locknuts evenly and tighten to the proper torque in the proper sequence, see Figure 7-3. rap top of U bolts and retighten to proper torque.
DO NOT EXCEED SPECIFIED TORQUE ON U BOLT LOCKNUTS.
 - 19,000 to 23,000 pound capacity equipped with 7/8" locknuts tighten to 400-450 foot pounds torque.
5. Install upper extension rod stud onto the height control valve arm. Tighten locknut to 80-90 inch pounds torque.
6. Re-attach the wheels.

Figure 7-3



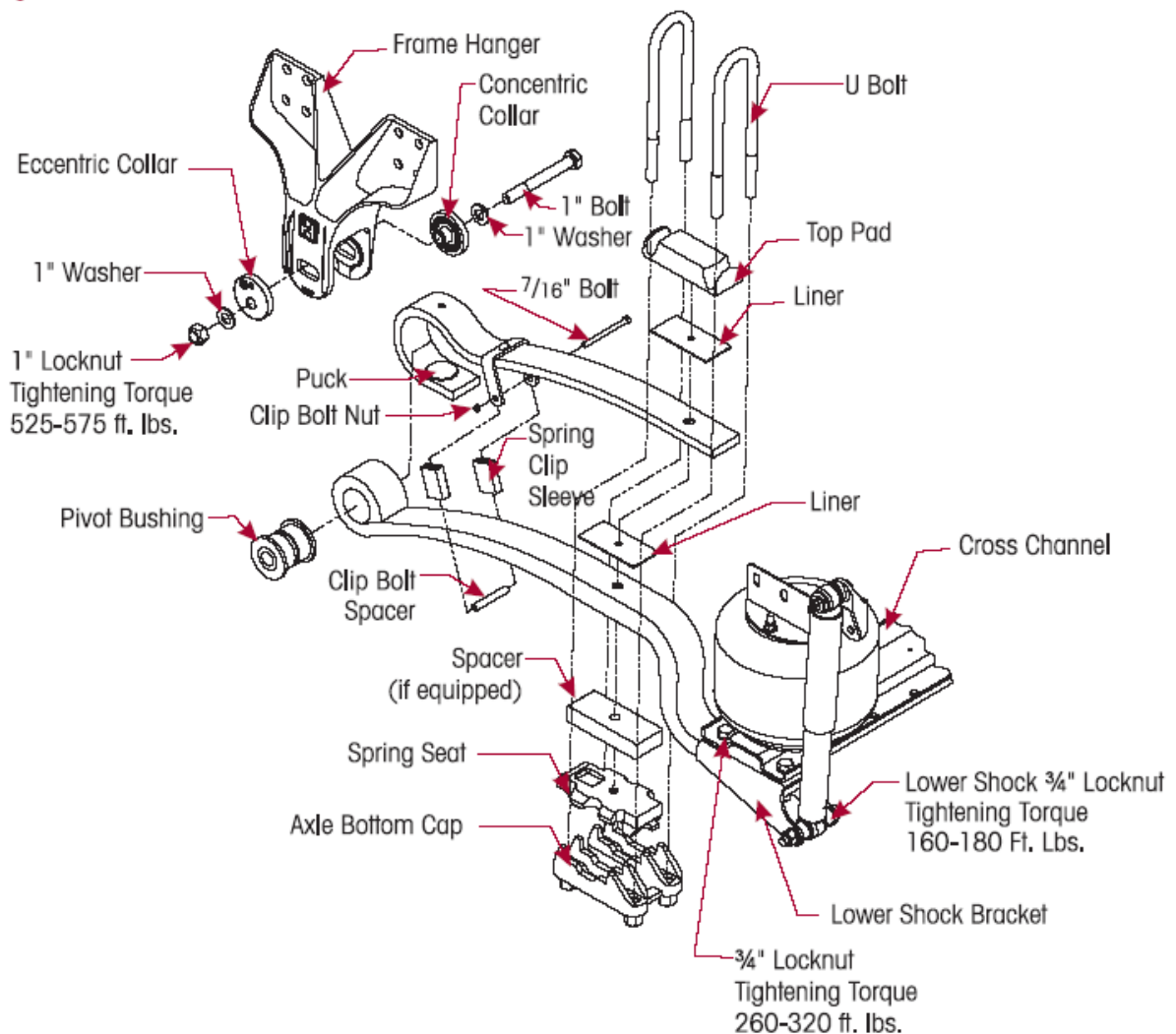
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7. Remove jack stands and lower the frame of vehicle.
7. Air up the system.
8. re-check the ride height as per Hino specifications.
9. Align rear axle.
10. After test driving, ensure "U" bolt and wheel nut tensions are rechecked.

ADDITIONAL TORQUE SETTINGS LISTED ON PAGE 4

Figure 7-4




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COMFORT AIR

HENDRICKSON RECOMMENDED TORQUE SPECIFICATIONS

NO.	COMPONENT	QUANTITY	SIZE	TORQUE FT./LBS.
Frame Fasteners Furnished & Installed by Truck Manufacturer ¹				
1	U Bolt (high locknut) 19,000 to 23,000 lb. capacity	8	7/8"	400-450
		8	3/4"	285-305
2	QUIK-ALIGN Locknut	4	1"	525-575
 WARNING DO NOT ASSEMBLE QUIK-ALIGN JOINT WITHOUT PROPER FASTENERS. USE ONLY DACROMET PLUS XL PLATE FASTENERS TO MAINTAIN PROPER CLAMP FORCE. FAILURE TO DO SO CAN CAUSE LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE OR PERSONAL INJURY.				
3	Shock Absorber Upper Shock Mount Locknut	2	1/2"	50-70
4	Shock Absorber Lower Shock Mount Locknut	2	3/4"	160-180
5	Cross Channel to Main Support Member Locknut	4	3/4"	260-320
6	Air Spring to Cross Channel Locknut	2	1/2"	20-30
7	Extension Rod Bracket to Cross Channel Locknut	2	1/4"	40-50 in. lbs.
8	Height Control Valve Arm to Extension Rod Stud Locknut	2	5/16"	80-90 in. lbs.
9	Height Control Valve Studs to Frame Locknut	2	1/4"	40-50 in. lbs.
10	Adj. Valve Arm Joint Stud to Bracket Locknut	2	5/16"	80-90 in. lbs.
11	Air Spring to Frame Bracket Locknut	2	1/2"	20-30
12	Main Support Member Assembly Spring Clip Nut	2	7/16"	30-34
NOTE: ¹ Follow torque specifications furnished by Truck Manufacturer's for OEM supplied fasteners. The torque values listed above apply only if Hendrickson furnished fasteners are use.				

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