



Recall Service Bulletin

DATE: 11-17-21

APPLIES TO: This Recall service bulletin applies to certain 2020, 2021, and 2022 model year, K1 and K2 model motor home chassis built within VDM range of January 2, 2019 – September 13, 2021.

NHTSA/TC Id: 21V-776

CONDITION: Certain rear suspension mounting fasteners that attach the rear drive axle to the rear suspension may not have been tightened to their proper value.

CORRECTION: The rear suspension fasteners shall be checked for component alignment, proper torque values, and damage.

LABOR ALLOCATION: 2.5 hours

CLASSIFICATION: M3

PARTS NEEDED: Please contact Spartan RV Chassis Customer and Product Support if parts are needed due to component damage.

GENERAL INSTRUCTIONS:

Thoroughly review entire service bulletin and reference Hendrickson manual 17730-261 rev. B before starting work. If there are questions or concerns with steps defined in this service bulletin, contact Spartan RV Chassis Customer & Product Support.

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

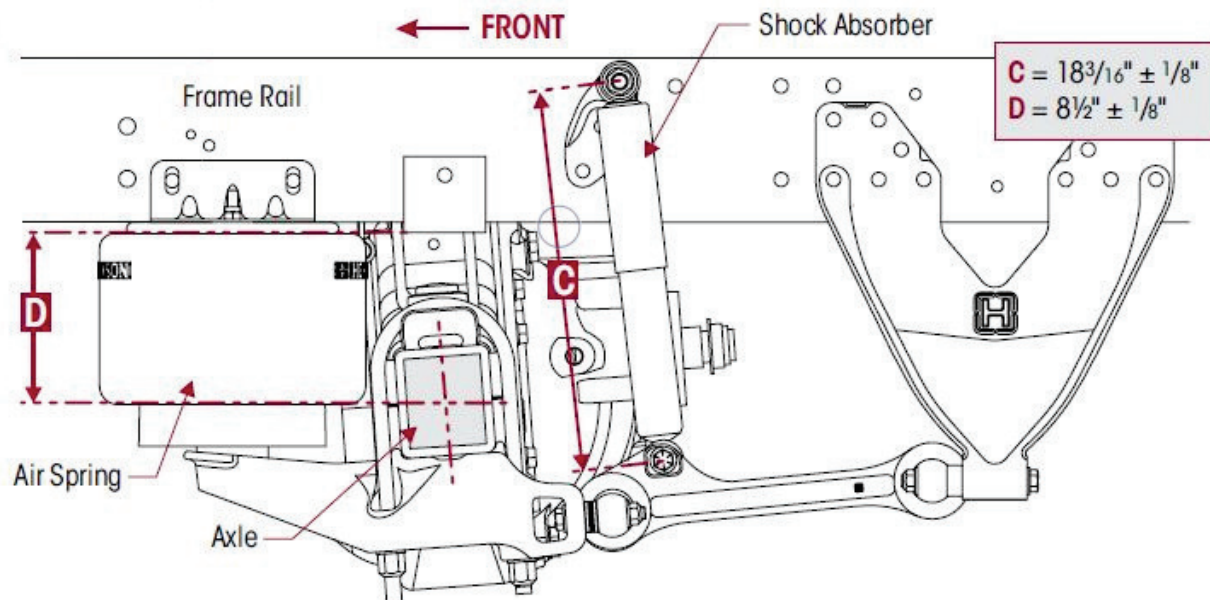
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Recall Service Bulletin

STEP-BY-STEP INSTRUCTIONS:

1. Use a work bay with a level surface, preferably a service pit or wheel lift to allow space to perform the Service bulletin.
2. Relax the suspension by slowly moving the vehicle back and forth several times in a straight line without using the brakes making sure the front wheels are straight when finished.
3. Do Not set the parking brake, chock front wheels at this time.
4. Verify and maintain air system at full operating pressure (125-135 psi), most units have an auxiliary air connection to plug in shop air into unit to accomplish this step.
5. Verify the vehicle is at proper ride height using dimension C or D and correct as necessary before proceeding.



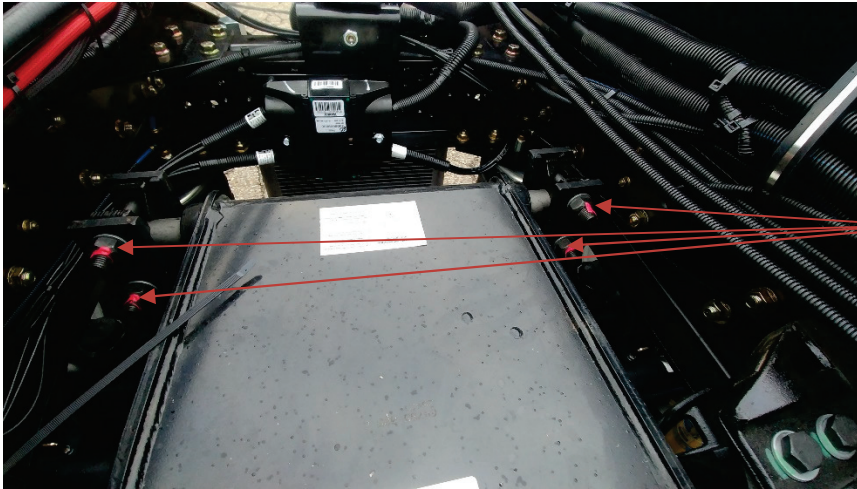
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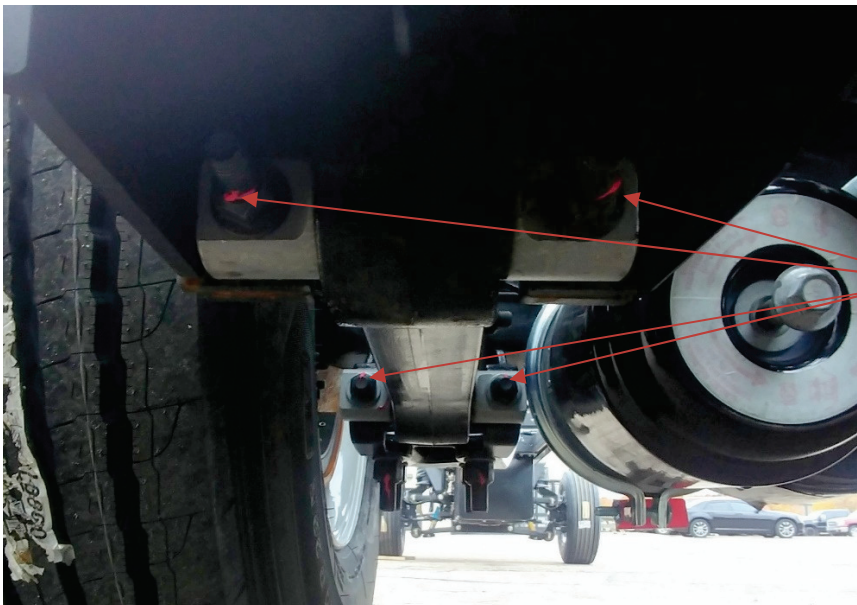
Recall Service Bulletin



6. Inspect four upper torque box clamp fasteners for torque marks, if none are present or appears shifted from original position, please note on repair order.



7. Inspect eight lower control arm fasteners for torque marks, if none are present or appears shifted from original position, please note on repair order.



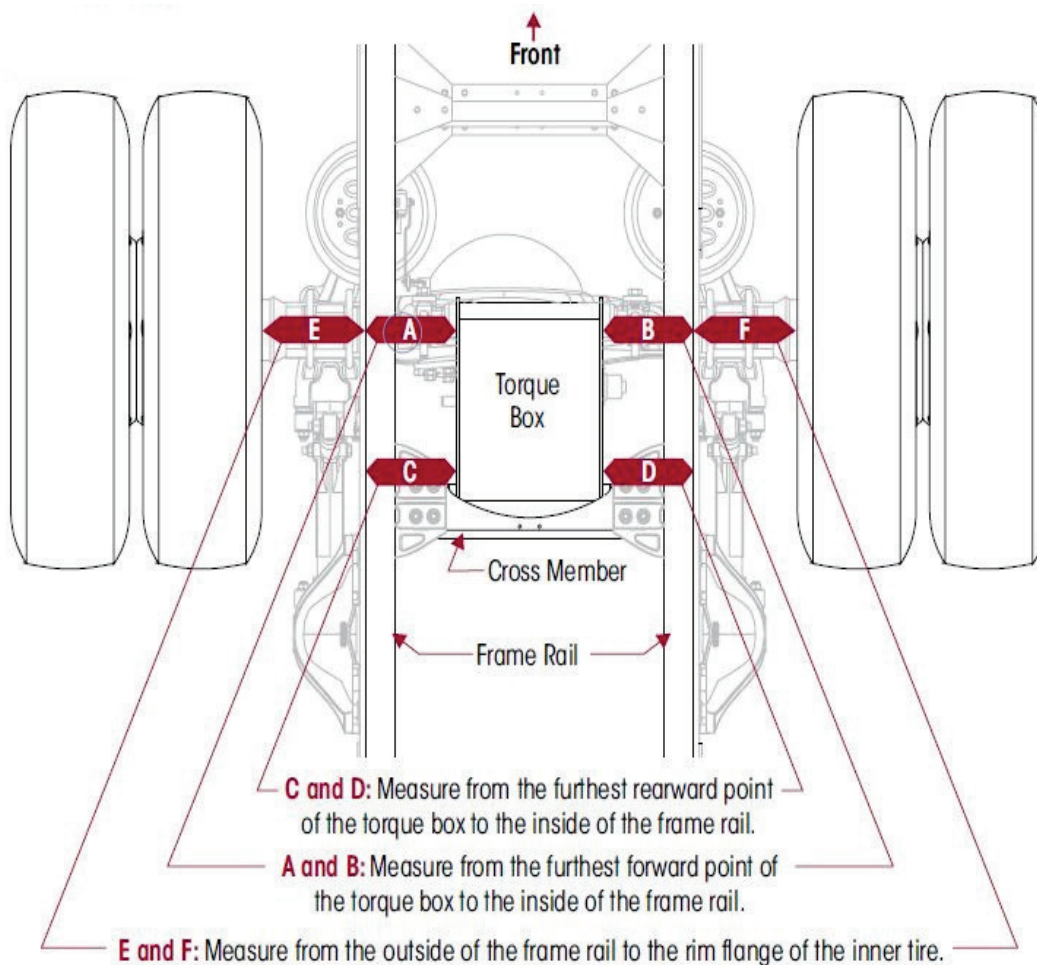
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Recall Service Bulletin



8. If no torque marks are present, visually inspect fasteners and holes for any damage such as side loading, elongated holes etc. that would require additional replacement of fasteners and/or components.
9. Using the below diagram, measure torque box lateral alignment and write down measurements for reference.



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Recall Service Bulletin



10. Measurements A, B, C and D will be used to determine if the torque box is centered and aligned in the frame. Measurements E and F will determine if axle is centered within the frame.
11. Calculate the difference between A & B, C & D, and A & C. If the calculated difference for all of these is $\frac{1}{4}$ " or less, the torque box alignment is within specifications, apply proper torque to bolts and mark the bolt/nut and continue to step 13.
12. If any of the calculated measurements are greater than $\frac{1}{4}$ ", the torque box must be aligned to the frame before proceeding. The steps to accomplish this are as follows.

Caution, if calculated measurements are greater than $\frac{1}{4}$ ", thoroughly inspect torque box fasteners and components for potential damage due to shifted torque box. Please contact Spartan RV Chassis Customer and Product Support if damage is present.

12a. Support the frame at ride height.

Warning, during inflation and deflation of the air springs ensure all personnel and equipment are clear from under the vehicle. Failure to do so may result in injury.

12b. Disconnect the height control valve linkage at the rear suspension and deflate the rear suspension.

12c. Loosen the torque box clamp fasteners at ALL four corners of the torque box.

12d. Using a pry bar or similar tool, center the torque box within the frame rails. Measurements A & B, C & D, and A & C should all be within $\frac{1}{4}$ ". This will center the torque box and ensure parallelism within the frame.

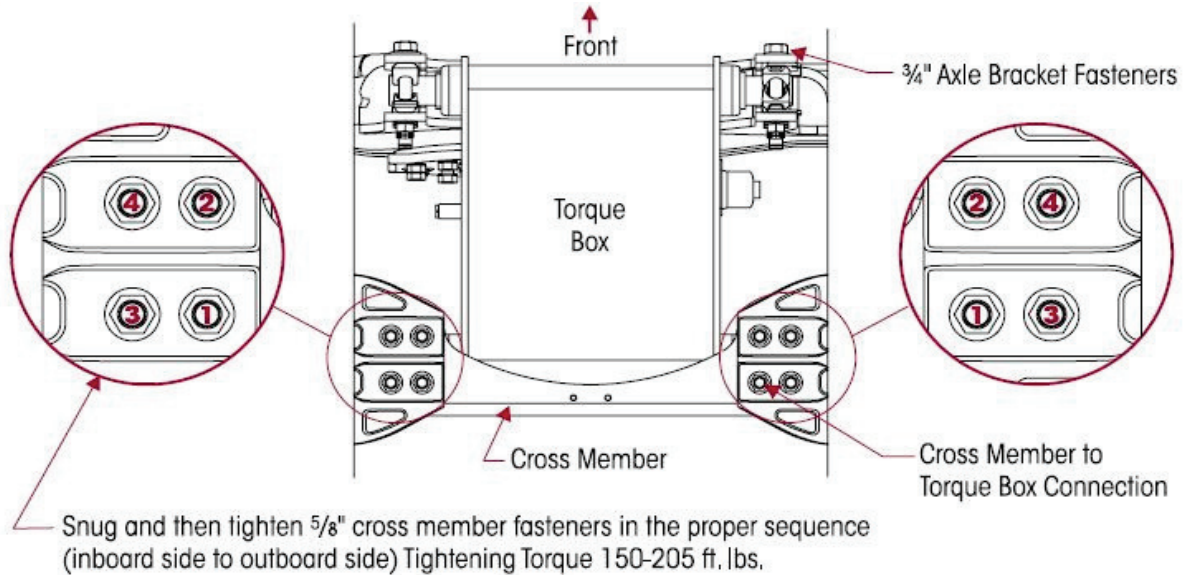
Warning, it is important that the torque box clamp fasteners be tightened in the proper sequence, using the proper torque values and the vehicle at ride height to ensure proper function of components and hardware.

12e. First snug and then tighten the torque box to cross member clamp fasteners in the proper sequence (inboard fasteners first then outboard fasteners) to prevent cross member deformation. Tighten the cross-member locknuts to 150- 205 LB-FT. See image below.

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Recall Service Bulletin



12f. Hand-tighten the torque box to axle bracket clamp fasteners. DO NOT apply final torque as further adjustment may be required.

12g. Verify measurements A & B, C & D, and A & C are still within $\frac{1}{4}$ " of each other.

13. Calculate the difference between E and F, if the difference is less than a $\frac{1}{4}$ " the axle is centered. Apply proper torque to bolts and mark the bolt/nut and continue to step 17.

14. If the difference of measurement E and F is greater than a $\frac{1}{4}$ " proceed to the next steps to center the axle.

Caution, if calculated measurements are more than a $\frac{1}{4}$ ", thoroughly inspect lower trailing arms, drive air springs and bases, inner tires, axle housing towers and related hardware for damage due to a shifted axle. Please contact Spartan RV Chassis Customer and Product Support if damage is present.

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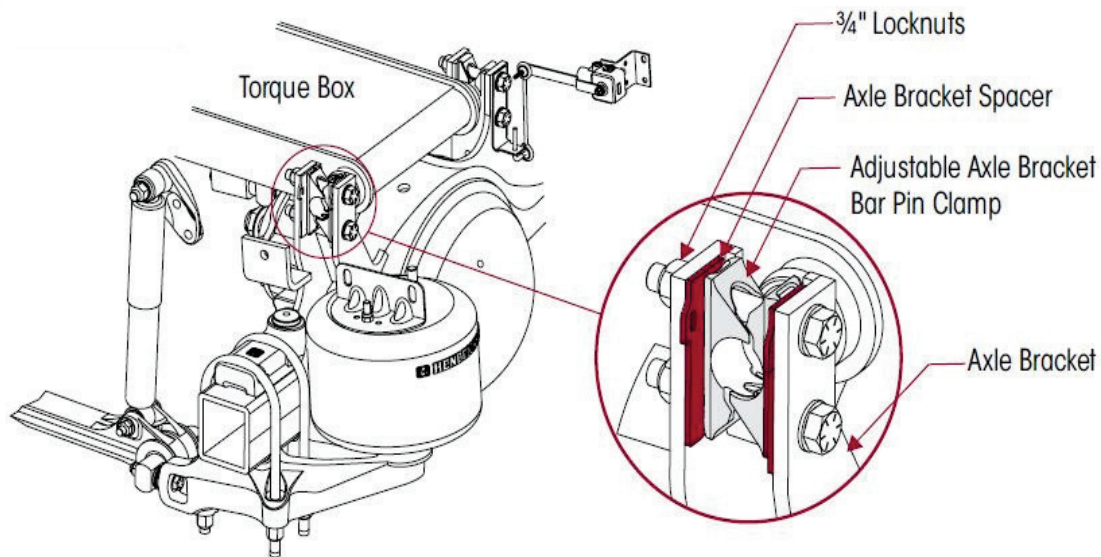


Recall Service Bulletin



- 14a. Use the measurements from E and F to determine which direction the axle needs to be moved to center the axle under the vehicle.
- 14b. Loosen the torque box to axle clamp fasteners. The fasteners may already be loose from step 12. Do Not loosen the torque box to cross-member fasteners.
- 14c. Using a pry bar or equivalent tool, move the axle in the direction required to center the axle under the vehicle. Measurements E and F should be within a 1/4" of each other.

Warning, the drive axle has one (1) axle bracket with adjustable bar pin clamps and four (4) axle bracket spacers, and one (1) axle bracket with non-adjustable bar pin clamps. The bar pin clamp pairs may be changed from side to side but must not be mixed. All four (4) spacers must be used with the adjustable bar pin clamps, which are thinner than the non-adjustable bar pin clamps. Torque box connections must be tightened in the proper sequence and follow proper torque values. Failure to do so can result in the deformation of parts, loss of clamp force, bolt failure, loss of the axle's alignment, loss of vehicle control, property damage, or personal injury.

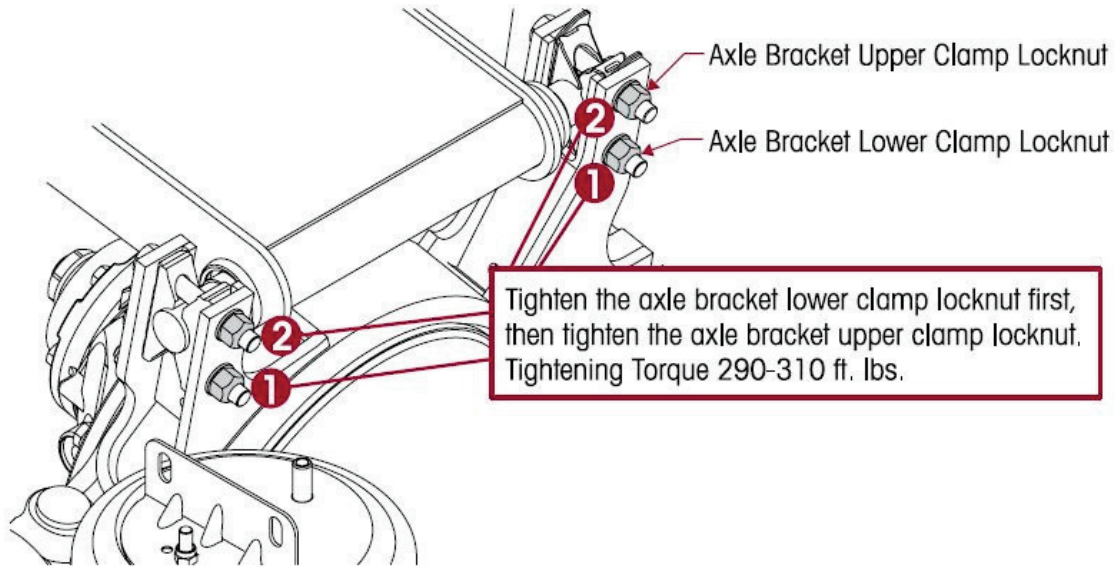


- 14d. Tighten the axle bracket clamp locknuts in the proper sequence. Tighten the lower clamp locknut first, then the upper clamp locknut. Tighten the locknuts to 290-310 LB-FT.

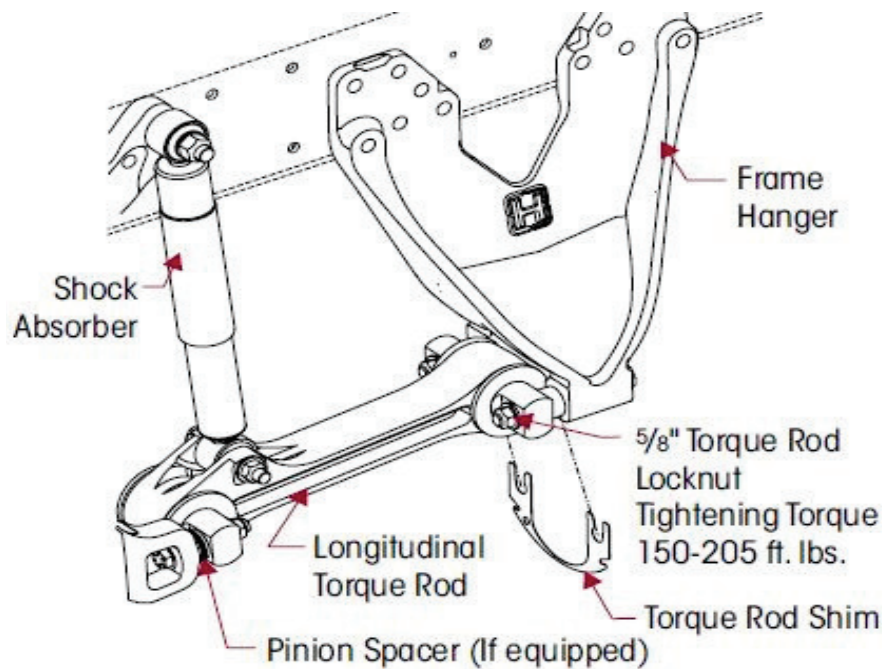
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Recall Service Bulletin



15. Tighten the longitudinal torque rod locknuts to 150-205 LB-FT.



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Recall Service Bulletin



16. Remove frame support from step 12a and inflate vehicles air suspension using vehicles air ride management system. Verify ride height is within specification as measured in step 5.
17. Verify measurements A & B, C & D and A & C are still within a 1/4" of each other.
18. Verify measurements E & F are still within a 1/4" of each other.

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