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**3" DUALSPORT REAR
SUSPENSION
RAM TRUCK 3500**





PLEASE READ BEFORE YOU START

TO GUARANTEE A QUALITY INSTALLATION, WE RECOMMEND READING THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING ANY WORK. THESE INSTRUCTIONS ASSUME A CERTAIN AMOUNT OF MECHANICAL ABILITY AND ARE NOT WRITTEN NOR INTENDED FOR SOMEONE NOT FAMILIAR WITH AUTO REPAIR.

INCLUDED PARTS	QTY
Rear Axle Kit	1

NOTE: Installation vehicles with a Two-Piece drive shaft require AEV PN: NRM43400AA.



I. 3500 REAR SUSPENSION

NOTE: For trucks with a two-piece drive shaft you will need PN: NRM43400AA. See Appendix for instructions before beginning installation.

1. Support the vehicle by the frame until the rear wheels are off the ground.
2. Remove the wheels and tires.
3. Disconnect parking brake cable (fig. 1).
 - a. Note the tension on the forward and rear parking brake cables loosen the brake adjustment nut to just short of the end of the threads.
 - b. Disconnect forward section of the rear brake cable.
 - c. Disconnect rear section of the rear brake cable.
 - d. Disconnect rear brake line pass through fitting.

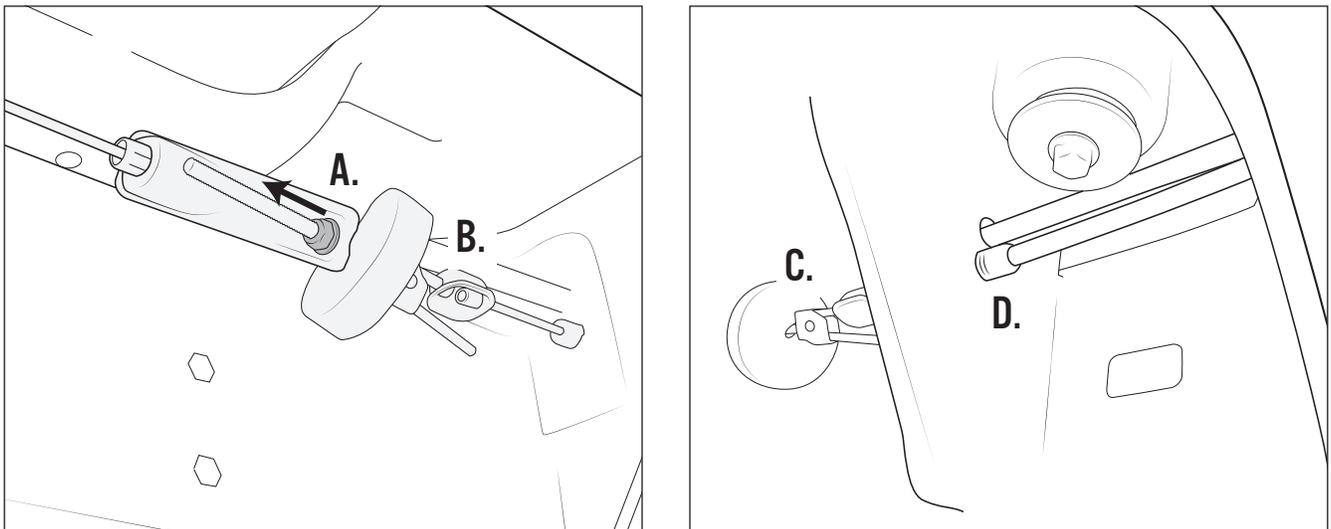


Figure 1

4. Support the axle and remove the shocks, save hardware.
5. Remove the axle U-bolts from one side.
6. Lower the axle enough to insert the lift block (fig. 2).
7. Install the new U-bolts and snug (fig. 2).
8. Repeat steps 4–6 for the opposite side.
9. Torque the U-bolts to **111 lb-ft**
10. Remove the rear bump stops.
11. Install the AEV bump stop spacers with supplied hardware and torque to **40 lb-ft** (fig. 3).

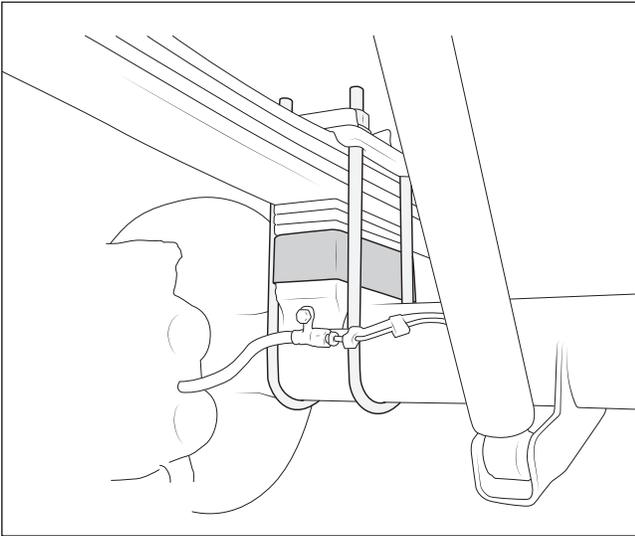


Figure 2

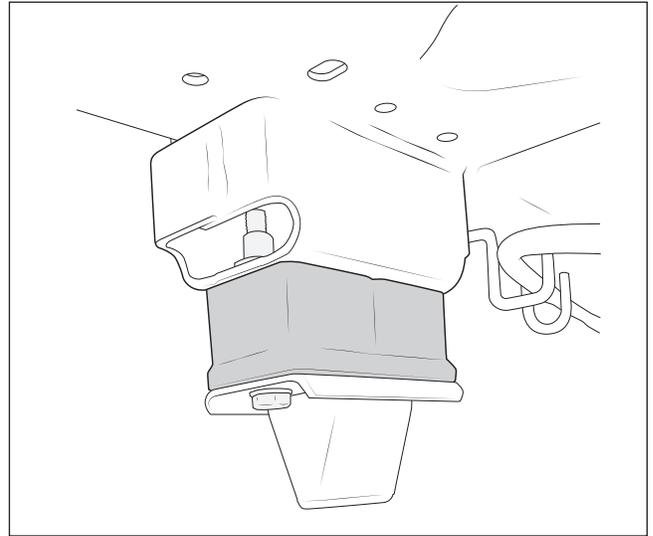


Figure 3

12. AIR SUSPENSION ONLY – Insert the rear air spring spacer. Secure at the bottom using the supplied 8mm bolts, nuts, and washers. Secure at the top re-using the factory hardware (fig. 4).

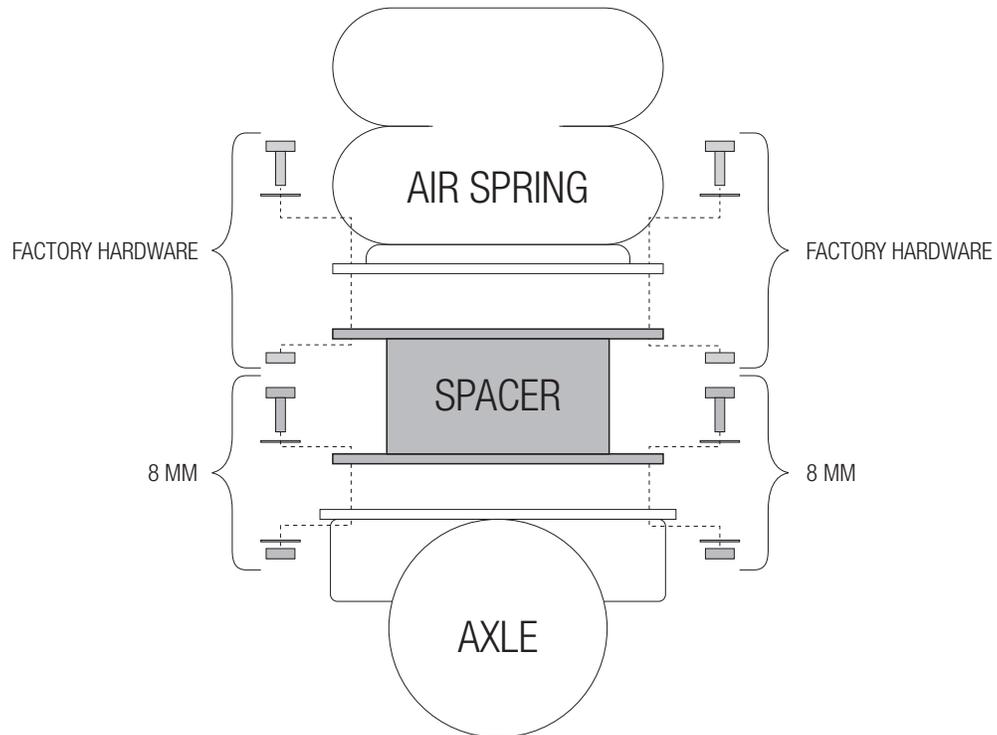


Figure 4



13. Assemble the shock bushings as shown (fig. 5) then install AEV shocks. Torque the lower bolt to **111 lb-ft**

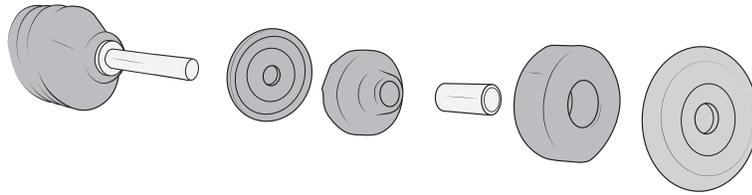


Figure 5

14. Install AEV parking brake line spacer (fig.6).

- a. Install the AEV rear brake line spacer onto the pass-through fitting on the forward part of the rear brake line.
- b. Insert the brake line and spacer back into its original location and secure with AEV provided jam nut using anti-seize, torque to **14-16 lb-ft**
- c. Reconnect the rear section of the rear brake line to its OE position.
- d. Reconnect the forward section of the rear brake line to its OE position.
- e. Adjust nut in a tightening direction and set to previously not tension.
- f. Check the operation of the parking brake and adjust as needed to ensure proper tension.

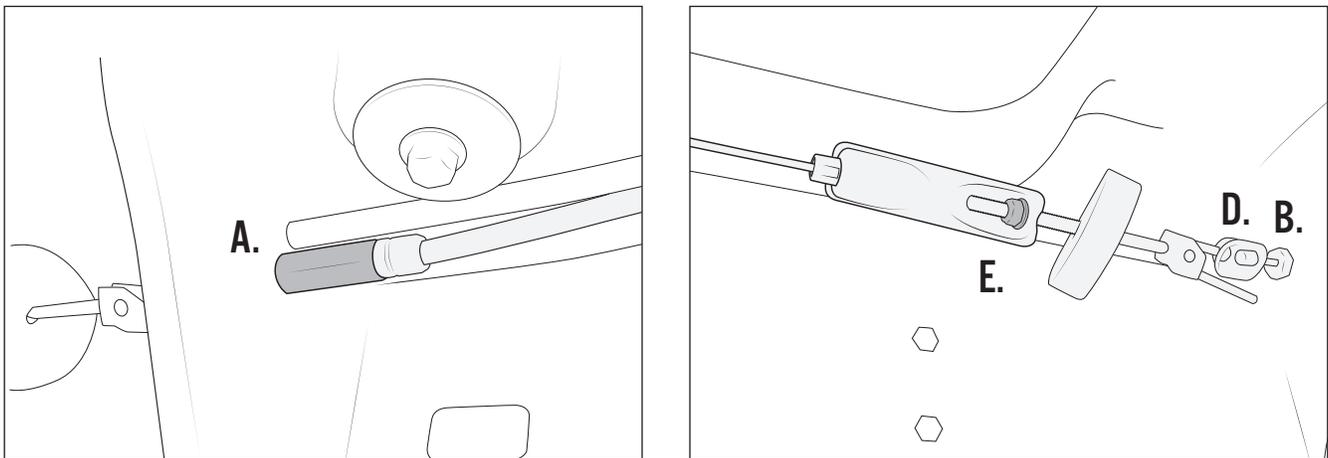


Figure 6

15. Install the wheels.

After everything is tight, drive the vehicle back and forth on flat ground to check steering wheel position. Adjust the drag link to straighten the steering wheel as needed.



APPENDIX FOR TRUCKS WITH A 2-PIECE DRIVE SHAFT INSTALLING AEV PN: NRM43400AA

CARRIER BEARING SPACERS

Carrier Bearing spacers are required to maintain proper drive shaft angles and help to eliminate drive shaft vibrations.

1. Support the carrier bearing and drive shafts in place.
2. Remove the two (2) carrier bearing bolts and discard (fig. 7).
3. Consult the spacer allocation chart (fig. 8) to determine the number of spacers required for your application.
4. Lower the carrier bearing assembly and slide in the required spacer(s).
5. Insert the supplied hardware and torque to 56 lb-ft.

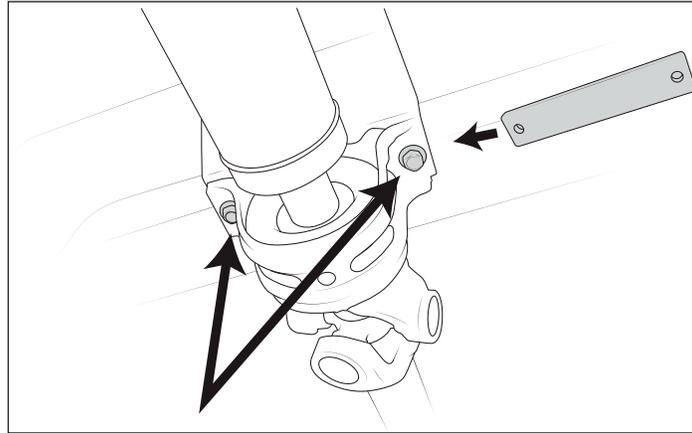


Figure 7

Model	Cab	Bed	Powertrain	Transmission	Spacer(s)
2500	Crew	Long	Diesel	6 Speed Auto	4
3500	Mega	Short	Diesel	6 Speed Auto	1
3500	Crew	Long	Diesel	Aisin	2
3500	Crew	Long	Gas	6 Speed Auto	2
3500	Crew	Long	Diesel	Manual	2

Figure 8