

Towing Procedure for Diff Lock Carriers

Date: **August 19, 2019**

To: **All Dana Commercial Vehicle Drive Axle Customers**

Issue Description:

Dana would like to take a moment to remind you of the importance of following the recommended towing and caging process for wheel diff lock equipped drive axles. Dana uses two different wheel diff lock designs. The most popular design has the wheel diff lock airline threaded into the end of the piston cover. See picture below. This design requires that the wheel diff lock be engaged (caged) before the axle shaft can be removed, and during towing.

The second design has the wheel diff lock airline connected to the top of the carrier sub assembly, which does not have to be caged during the towing process.

It's important to follow this procedure to ensure that drive axle damage does not occur during the towing process.



Rear-Rear Drive Axle



Wheel Diff Lock Shift System



If the airline is threaded into the end of the piston cover, you must engage (cage) the wheel diff lock before removing the axle shafts, and during towing.



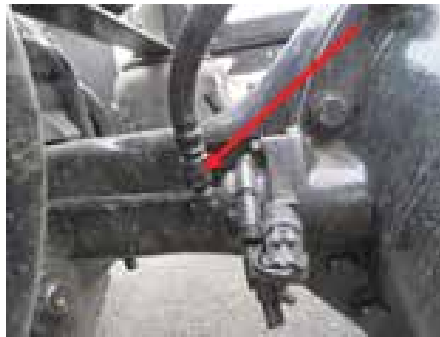
If the airline is threaded to the side of the carrier sub assembly, engagement of the wheel diff lock is not required.

Procedure for Wheel Diff Locks that Must be Engaged (Caged) Before Towing

IMPORTANT: Both axle shafts must be removed when towing a vehicle with only the rear-rear axles wheels on the ground.

1. Block the front and back of at least one of the vehicle tires so the truck can't move during this procedure.
2. With the parking brake engaged, put the transmission in neutral.
3. Make sure the wheel differential switch on the dash is in the "unlocked" position.
4. Disconnect the airline going to the wheel diff lock if the hose is connected to the center of the piston cover.

Remember, if the airline connects to the side of the carrier sub assembly there is no need to engage the diff lock before you remove the axle shaft.



5. Now install the plastic engagement stud (Dana part number 129946) into the end of the piston cover. With an allen head socket and ratchet turn the stud until the end is flush with the cover as shown below. If the stud stops or gets hard to turn, rotate the drive shaft or one wheel to align the clutching teeth.



6. Install a plastic cap over the fitting of the wheel diff airline.
7. Starting on the left-hand side, place a drip pan under the end of the wheel hub.
8. With an impact gun, remove the axle shaft nuts, washers and tapered dowels if used.
9. Remove the axle shaft from the drive axle housing.

CAUTION: Do not use a chisel or any other wedge device to loosen the shaft. Chisels and wedges will damage the flange of the wheel hub and/or the axle shaft flange.

Procedure for Wheel Diff Locks that Must be Engaged (Caged) Before Towing (cont.)

10. Now install a cover over the wheel end.



11. Reinstall the fasteners to seal the wheel end and tighten in a crisscross pattern.

12. We can now go to the right side of the axle and repeat the process.

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