

# **Procedure for Caging the Parking Brake Springs On The Freightliner Chassis**

This is my attempt to document the procedure I use to cage the parking brake springs on my Freightliner RV chassis while performing annual brake maintenance.

I first make sure to chock both front and rear on the front tires. It is critical to make sure the chassis cannot move either forward or backward while the parking brake springs are caged, while the parking brake springs are caged the coach can move.

**AFTER THE PARKING BRAKE SPRINGS ARE CAGED THE CHASSIS CAN MOVE IF THE FRONT TIRES ARE NOT PROPERLY CHOCKED.**

I begin by jacking up the rear axle and then placing jack stands under the axle to support the weight of the coach. On my coach the rear axle is at 20,000 pounds, some coaches will be even heavier so take any additional weight into consideration. I raise the coach just enough to enable the removal of the rear tires and wheels. Take care when removing the lug nuts it takes a lot of power to remove and reinstall the lug nuts. Once I have the lug nuts off, I use a tire iron to slide the tires away from the axle hub. After removing all four tires and wheels I am ready to start the parking brake caging routine.

The rear brakes on the Freightliner chassis are double chamber brakes. The service brakes are air applied and spring return, while the parking brakes are spring applied and air released.

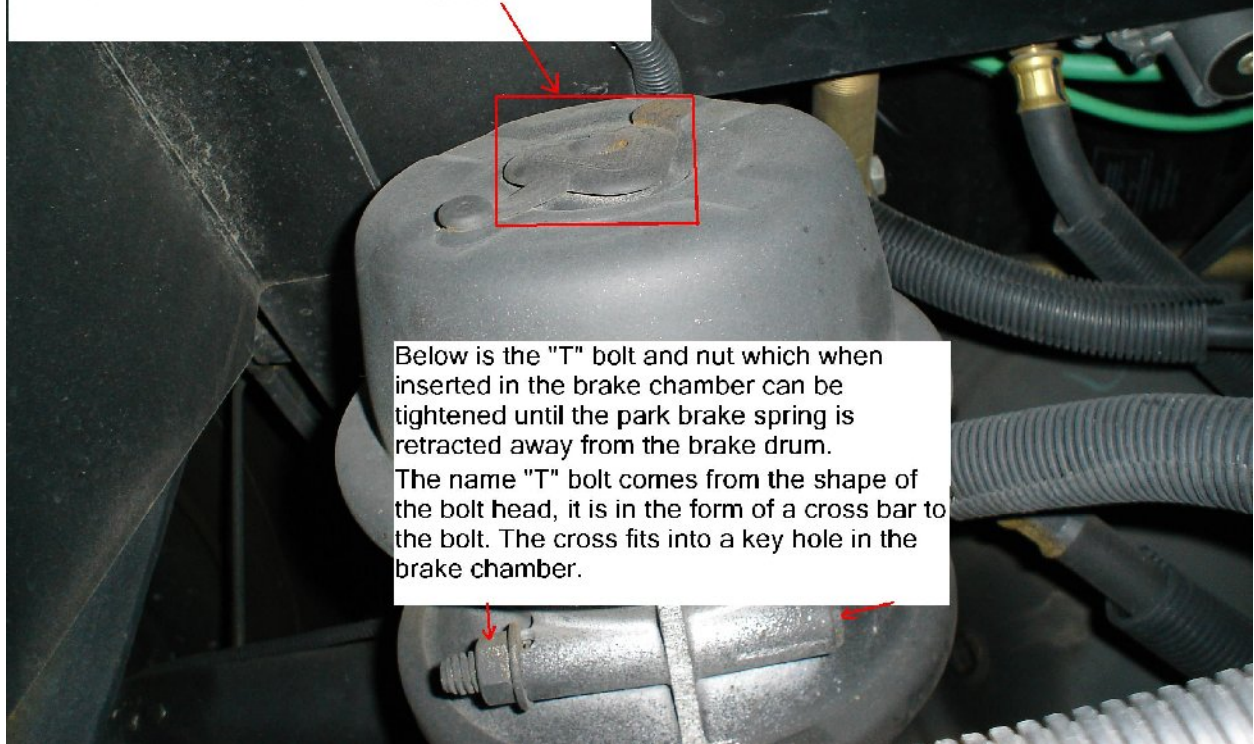
To cage the parking brake spring the only tool required is a 3/4 inch box end wrench. The wrench is used to remove the "T" bolt and nut from the outer housing of the brake chamber, there is a bolt and nut on each brake chamber. A rubber plug covers the hole where the "T" bolt is inserted remove the rubber plug insert the "T" bolt until it bottoms out. Rotate the bolt clockwise until it locks in place then pull back on the "T" bolt. Place the nut on the threads and tighten until the nut is as tight as you can get it with the wrench. After following this procedure to cage both sides of the parking brake springs. The rear axle hubs can be slid off of the axle lug bolts.

**THE REAR AXLE HUBS ARE VERY, VERY HEAVY, TAKE CARE !!!! WHEN HANDLING THEM. I DO NOT KNOW THE EXACT WEIGHT BUT THEY ARE AROUND ONE HUNDRED POUNDS, EACH.**

The reverse procedure will enable you to re-install your brake drums, and un-cage the parking brake springs.

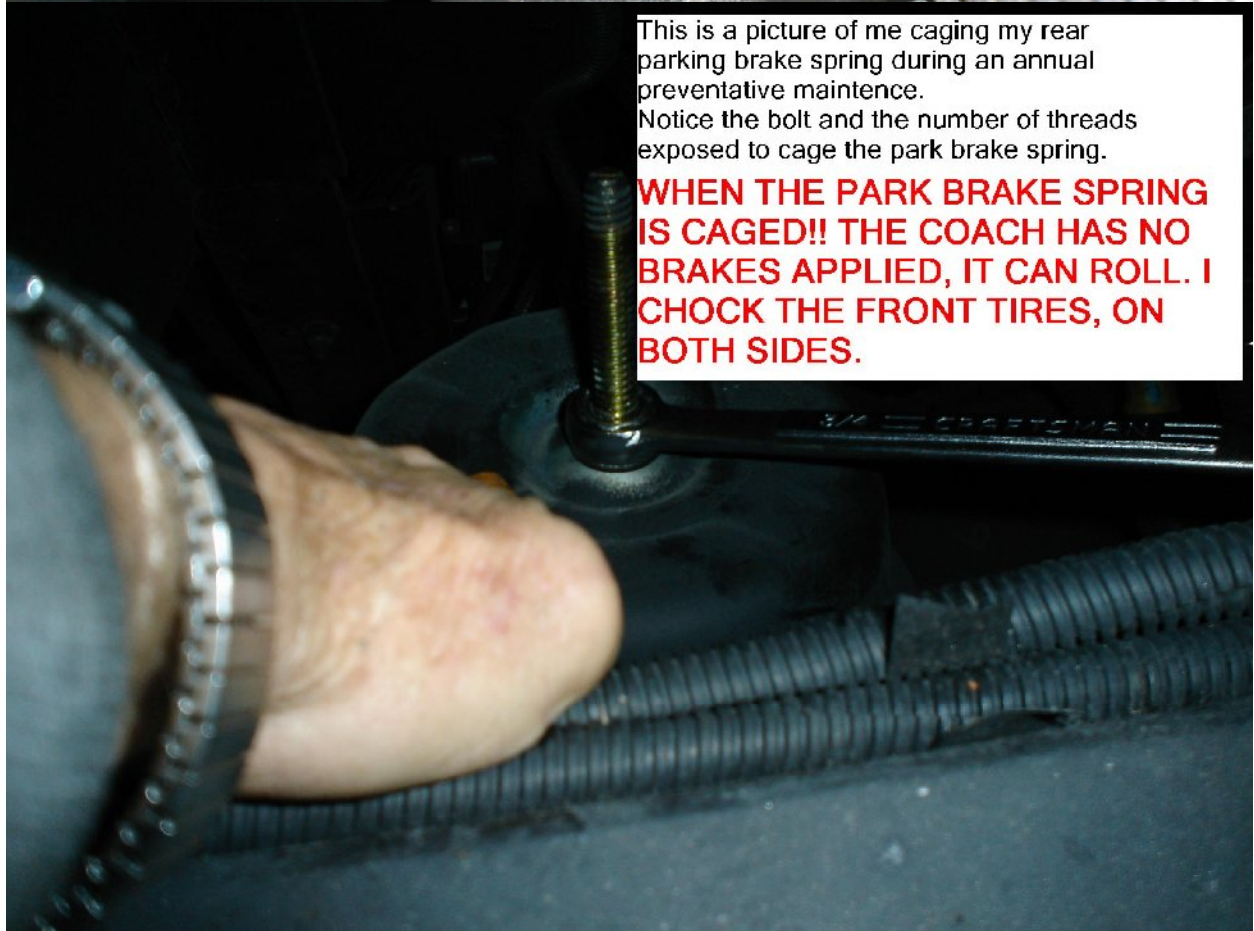
The following page contains two pictures with captions. **Good Luck, Be Careful.**

Rubber cover over the park brake spring chamber. Pull back on cover to reveal the hole in which you insert the "T" bolt. The "T" bolt nut is then tightened to release the parking brake spring pressure on the rear brake drum (Caging the brake). Both sides left and right rear brakes require the caging procedure.



Below is the "T" bolt and nut which when inserted in the brake chamber can be tightened until the park brake spring is retracted away from the brake drum.

The name "T" bolt comes from the shape of the bolt head, it is in the form of a cross bar to the bolt. The cross fits into a key hole in the brake chamber.



This is a picture of me caging my rear parking brake spring during an annual preventative maintenance. Notice the bolt and the number of threads exposed to cage the park brake spring.

**WHEN THE PARK BRAKE SPRING IS CAGED!! THE COACH HAS NO BRAKES APPLIED, IT CAN ROLL. I CHOCK THE FRONT TIRES, ON BOTH SIDES.**