

Getting your Freightliner RV chassis ready to Tow

>> A Crusingator Document <<

My worst nightmare is that at some point no matter how much I perform my own chassis service and maintenance, the coach is going to require some **Bubba** (tow truck operator) to tow my coach.

Tiffin RV network upload size restrictions sometime come into play when I am writing or inserting pictures, I have to keep the file size to less than 640 KB when the upload exceeds that size my only hope is Cruzer (Mark) will place my efforts in the Tiffin RV network Library.

OK, let us start off with some assumptions:

1. The engine died and will not restart.
2. The coach is on the side of the road or out of traffic.
3. We called for assistance and they are sending Bubba to tow the coach.
4. When the engine died both the primary (rear) (#1) and secondary (front) (#2) air systems were holding more than 100 PSI of pressure.

Bubba arrives and backs up to your coach. If you are lucky he will know what is necessary to safely connect up to your front axle and prepare the chassis for towing with the rear wheels on the ground. If you are going to be paying Bubba for the tow now is a good time to find out how much the tow going to cost you before any work is done.

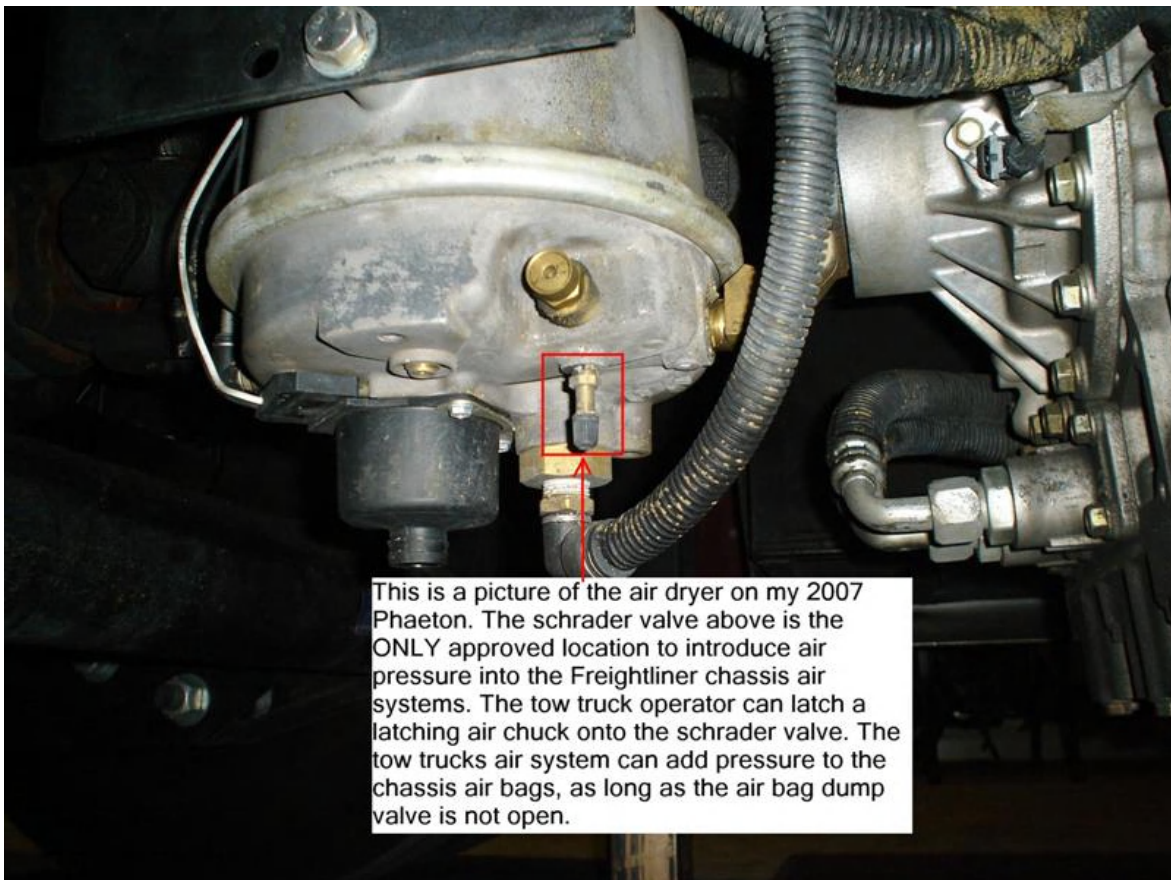
Hopefully he is driving a tow truck with the capability to reach back under and around your front tires and lift the front tires and front of the coach off the ground. Once he is connected to your coach and has lifted the front wheels your coach can be made ready to tow. IMHO, three major components are required to safely tow your coach damage free.

1. I have already stated that there is air pressure on both of the coaches' air systems. The secondary air system supplies the necessary air pressure to the air suspension's air bags. The air bags will keep the frame at a safe distance from components which otherwise may be damaged during the towing.
2. The drive line between the transmission and the rear axle (differential) must be disconnected at the **differential** end and tied up or best yet completely removed from both the transmission and differential at the yokes (universal joints). I usually find a way to mark the drive line ends and the two yokes so when it is reinstalled the differential and transmission yokes can be turned so that the driveline is reinstalled in exactly the same rotation in which it was removed. If the drive line is reinstalled with one end out of phase (180 degrees) out from the original installation, a bad vibration may be the result.
3. Again as I have already stated the air systems have over 100 PSI. The result of that is the park brake switch on the drivers console can be depressed.

That releases the park brake springs and the coach is now ready to be towed. When Bubba gets you to the repair facility he will, or he will have you engage the parking brake on your coach. He should now reinstall the driveshaft on your coach. If this were me, I would be watching Bubba to make sure he properly reinstalls the driveshaft. Usually Bubba has no connection with the repair facility your coach was towed to, so do not allow him to leave until ALL PARTS ARE ACCOUNTED FOR. Make sure the correct end goes to the differential and then he connects the universal joints to the differential and transmission in phase. Marking the yokes is something I would do at the next service interval with paint or a paint marker. That way if you ever need to be towed the driveshaft and yokes are pre-marked for Bubba.

Now all Bubba needs to do for you is to lower your coach front axle and tires to the pavement. Bubba is going to want you to sign for the tow and maybe also to pay him.

OK that was the easy tow what about the more difficult tow. Again we are going to make some assumptions # 1, # 2, and # 3 above remain the same. Assumption # 4 however: Is no longer true, the air system both primary and secondary has NO AIR PRESSURE. The good news I am assuming if air pressure is introduced into the coach air systems it will not leak out.

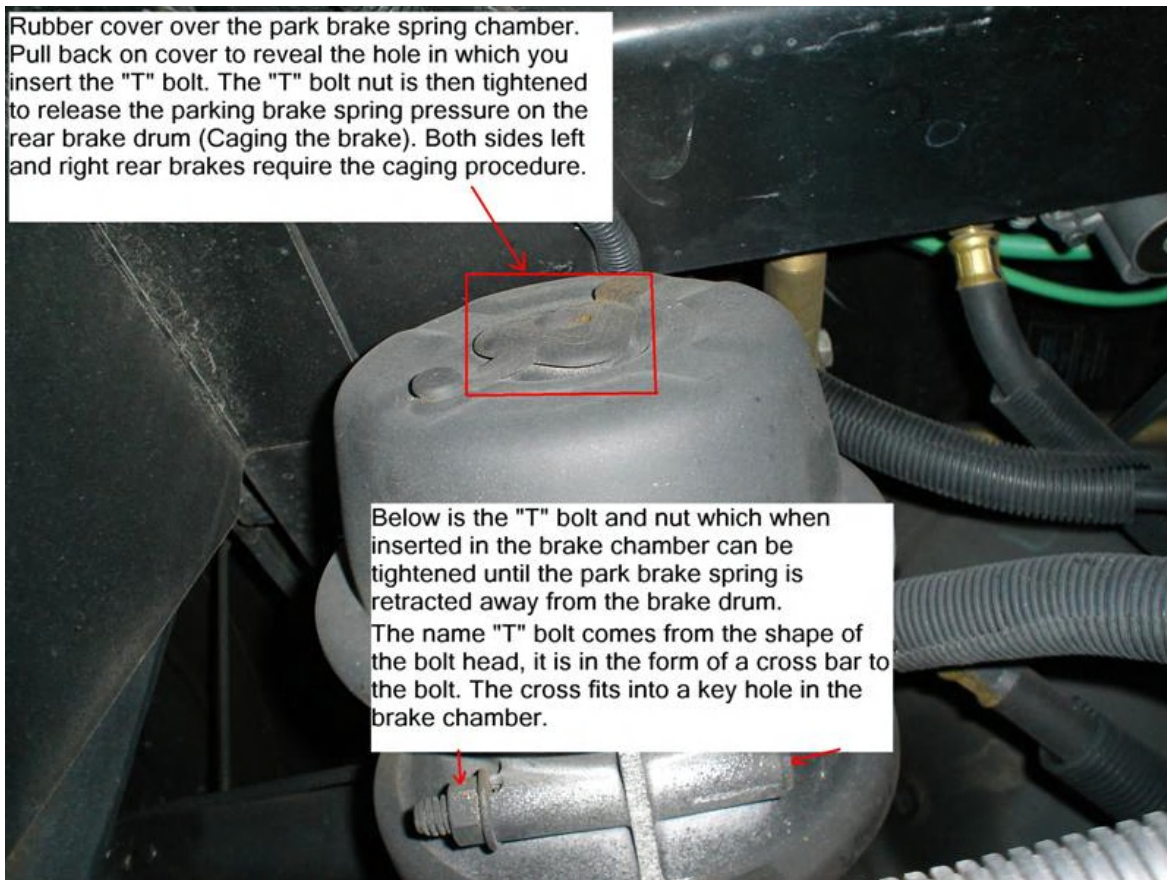


This is a picture of the air dryer on my 2007 Phaeton. The schrader valve above is the ONLY approved location to introduce air pressure into the Freightliner chassis air systems. The tow truck operator can latch a latching air chuck onto the schrader valve. The tow trucks air system can add pressure to the chassis air bags, as long as the air bag dump valve is not open.

As you can read in the picture this is the ONLY freightliner approved point to apply air pressure into the chassis air systems. Introducing air pressure into the system here will give you the possibility to supply air pressure to the chassis air bags. One problem resolved but now how do we release the coaches parking brake? If you have a minimum of 40+ PSI on the air system then the parking brake springs can be air released. It takes a **MINIMUM** of 40 PSI to disengage the parking brake any less air pressure and the parking brake can and will reset itself and Bubba will be towing your coach with the rear brakes locked and the rear tires smoking.

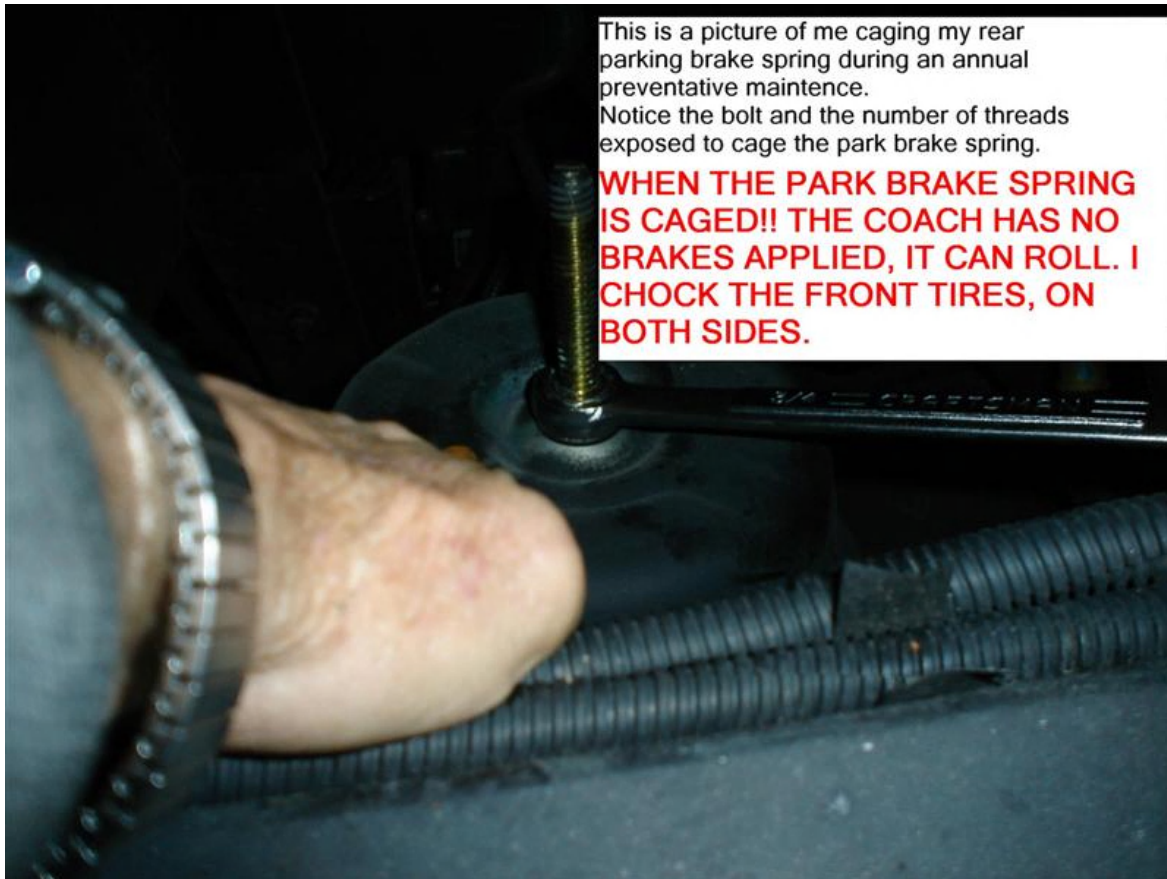
But again we have another problem we can supply air to the air bags but we have no air pressure to the parking brake springs. The parking brakes are spring applied and air released. No air pressure, No parking brake spring release.

There is a **MANUAL** method in which to release the parking brake springs. After the tow truck is attached to the coach the following procedure will release the parking brake springs and then the coach will roll (**NO BRAKES WHEN THE PARKING BRAKES ARE CAGED**).



The next picture is of me performing an annual maintenance on my chassis. I released the parking brake springs which allowed me to remove the rear brake drums. After cleaning the brake foundations and deglazing the brake shoes I

greasing the brake "S" cam finished lubricating the rear of the chassis and put everything back together.



Putting everything back together does take a little time. Both rear brake drums are cleaned to remove any debris from them along with any rust film. Then the brake drums are reinstalled. Then I have to un-cage both rear parking brake springs and properly stow the "T" bolts and their nuts back on the brake chambers. It takes a little effort to wrestle the 130 or so pound tires and rims back into place and then to torque them down to about 450 foot pounds. So what have I missed? If you think of something you know where to find me.

Will any owners have the knowledge or equipment to perform their own maintenance or to even be able to perform part of the above in a crunch? Only you can answer that question, but if in doubt do not attempt the above. If however the above information empowers you to keep an eye on Bubba and on your wallet my efforts have been worth it to me.

One point, in one case Bubba disconnected the driveshaft from the wrong end (transmission end) and the rear differential spun the driveshaft hard enough to require several thousand dollars worth of repairs to one owners coach. **DO NOT LET THE NEXT BUBBA DAMAGED COACH BE YOURS.**