



INSTALLATION, OPERATION  
&  
MAINTENANCE  
OF THE  
TRAILERSAVER  
TS3  
AIR RIDE HITCH



## Installation of the TS3 Air Ride Hitch

**NOTE:** Every hitch is shipped with a handle extension kit used to operate the hitch locking mechanism from outside of the truck body. This kit consists of an extension handle and an extension hook. Make sure your installer has given it to you.

**Standard Install:** This hitch is made to install in standard, slotted rails such as Reese, Valley, Drawtite, or equivalent. If this is a retrofit, you need to remove your existing hitch now. Loosen the 2 bolts in each corner of the TS3 hitch. Set the TS3 in place in the appropriate rectangular holes in the slotted rails. Now insert the 4 pins through the bottom rail in each corner making sure to use the retaining clips. Tighten the ½” bolts (total of 8) to 150 foot pounds of torque. Even if your hitch dropped right in, the bolts still need to be tightened as they are only hand tightened at the factory. You are done with the standard install.

**2” or 3” spacer option and/or Pull-Rite adapters:** if you have this option, your hitch will have a spacer or adapter between the rails and the base of the TS3. Follow procedure as above making sure to tighten all bolts securely to 150 foot pounds of torque.

**Air Compressor & Remote Control Assembly option:** The TS3 comes standard with a Schrader valve to inflate the hitch. If you have opted for the air control assembly in the cab, there is a little more work to do. The air compressor should already be installed in the base of the hitch. If yours has not been mounted, now is the time to do so with the 4 bolts supplied. Mount your electric gauge assembly in the cab somewhere convenient to use later, preferably it should be reached from outside the cab. Find a 12 volt source of current and bring it to one side of the switch. The other side of the switch will go to the compressor mounted in the hitch. The black wire from the compressor is the ground. This needs to go to a secure vehicle ground that will not corrode later. Run the ¼” air line supplied from the tee at the back of the gauge to the air line tee in the hitch. You will be able to monitor hitch pressure from the cab now. With this assembly, you can deflate the hitch from the cab by pressing the air button.

**Air Compressor & Switch option:** Your Schrader valve is still on the hitch assembly, but now you have a push button switch that you can control the compressor. Everything has been already mounted for you. You will inflate using the push button and deflate the hitch by using the Schrader valve.

**Paddle control valve:** If your truck has an onboard supply of air, the following will apply. You can mount the paddle control valve assembly under your dash or in the bed wherever it works best for you. The paddle control valve comes with 30’ of ¼” air line. The supply side of the control valve will need to go to your air tank or a pressurized line. Cut the pressurized line and insert the supplied tee and run the air line to the supply side of the valve. Run a piece of hose from the brass tee at the back of the gauge and insert it in the cross tee at the base of the hitch.

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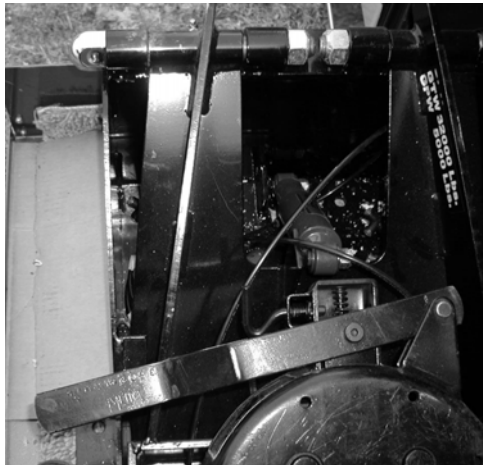
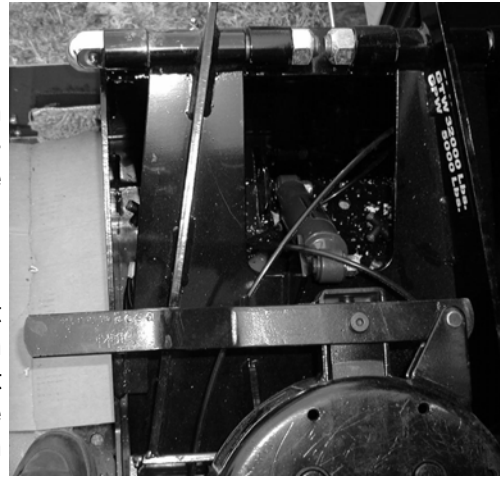
# Operation of the TS3 Air Ride Hitch

## Hooking up your trailer

(Before continuing, read "Auto Lock Position" on page 4)

**Step 1)** Make sure the unlatching handle of the hitch is in the "auto lock" position. The handle will be at a 90-degree angle from the centerline of the hitch or in the nine o'clock setting. It will be facing straight at you if you are standing on the left side of the truck facing the hitch.

**Step 2)** Back your truck to the trailer until the kingpin just enters the "V" of the hitch. If you have the standard hitch without remote air control, lower your trailer to where it makes good contact with the fifth wheel. If you have the remote air fill, raise the hitch until it comes in contact with the kingpin plate. Put a small amount of air pressure (10#) on the kingpin plate to assure that you are in the correct position for proper lockup. You want good contact so that we do not try to "high hitch", yet you do not want to pick the trailer off the ground.



**Step 3)** Now, back into the kingpin. The latching handle will move toward the rear of the hitch when it is locked in position. The spring loaded detent pin will move into position in front of the steel sliding locking bar to secure the locking mechanism. This is the eight o'clock setting. On the right side of the hitch there is a hole located in the channel that the steel bar slides in. You may install a padlock in it to prevent anybody from unlocking the hitch assembly. Do not go behind the truck to try and examine the jaw position. There are 2 issues here, if you are not locked, you do not want the trailer to fall on you. Second, just because the jaws are wrapped around the pin does not mean that they are latched. The locking bar must come back to keep the jaws closed.

**CAUTION: ALWAYS TRY TO MOVE THE LOCKING HANDLE FORWARD AFTER HOOKING UP TO YOUR TRAILER TO MAKE SURE YOU ARE LOCKED IN POSITION!!**

If you cannot move the handle past the detent pin you are locked and ready for travel.

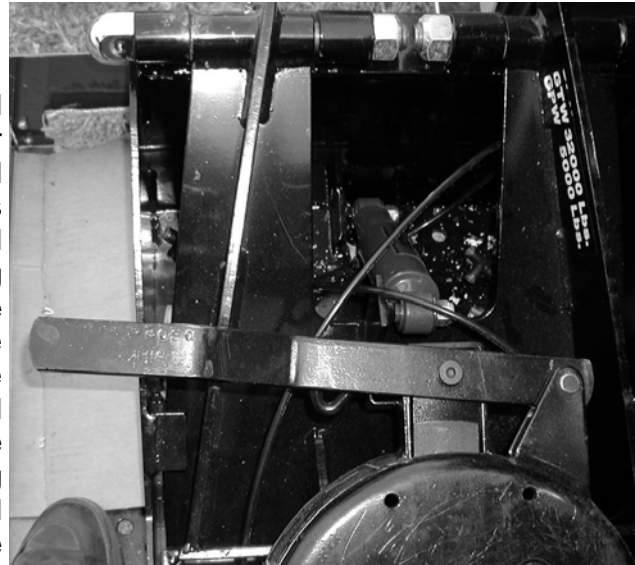
If you experience difficulty with the hitch jaws locking, check the condition of the trailer pin. It must be perfectly free from all burrs, dirt and paint buildup. The anti-friction pad must be tight against the pin box. We see dirt and grease buildup on the pin from using a hitch with a thinner locking mechanism than we use. On some occasions, we cannot use the friction pad because it is too thick, or the pin on the trailer is welded in too high. Any of the above conditions may cause the locking jaws not to lock.

**Step 4)** Raise the legs of the trailer and then add the correct amount of air to the air springs. On the left rear of the hitch, you will see a white line on the traveling arm. As the hitch goes

up, the white line will just become visible over the edge of the hitch. At this position, you are at the minimum operating height of 1". Start here and adjust to get the ride that you desire. If the hitch is making a "clunking" sound as it bottoms out, you know that you need to add more air. In our case, usually less is better. Look at the pressure gauge to see what the pressure is and from then on you can hook up and inflate the air bellows to that same pressure. The pressure on the gauge is usually between 25 and 90 pounds depending on your pin weight. If you are using the Schrader valve, you should be ready to go next time also.

## ***Disconnecting from your trailer***

After you have located your trailer in its final position and put in your wheel chocks, lower your trailer legs and apply enough downward pressure to pick up the trailer a little bit. At this time unlock the jaws on the Holland 5th wheel hitch. To do this you must first pull the spring loaded detent pin located on the left front side of the hitch, and while holding the pin move the unlatching handle forward, (toward the front of the truck) as far as it will go. This will be the ten o'clock setting. At this position, the detent pin will engage a hole in the sliding steel bar locking it open. Usually the jaws will open, however, if there is pressure against the kingpin, the jaws may not open, but the hitch is unlocked and as soon as you move your truck a fraction of an inch the jaws will open.



*Schrader valve*) Now raise the trailer until the upward stops are reached. OR

*Air control units*) Next, remove ALL of the air from the air springs of your hitch. *Both units*) If you do not perform one of the above functions, the hitch will come upward with **great** force as you pull away. *This is not a good thing.* After you have relieved pressure from the hitch, you may now drive away from your trailer after disconnecting your cables.

## ***Auto Lock Position***

After you have pulled away from your trailer you should move the unlatching handle far enough forward to release the tension that is against the detent pin and then pull the pin and allow the unlatching handle to move rearward. This operation will allow the detent pin to rest against the sliding steel bar and be in the nine o'clock setting. This action puts the hitch in the "auto lock" position. This is a good habit as now when you back into the trailer kingpin, the jaws will automatically close.

If you elected not to do the above step, and instead leave the sliding bar locked open, you must manually lock the assembly. After backing into your trailer kingpin, manually pull the detent pin out of the hole so the steel bar will move rearward (to 8:00) securing the locking jaws in place. If you do not do this, the trailer will separate from the hitch when you move forward with your truck. ***This is certainly not a good thing.***

## Maintenance procedures for the TS3

Any quality piece of equipment requires some periodic maintenance to keep it in proper operating condition and the same is true with the model TS3 Trailer Saver Air Ride Hitch. While we strived during the design process to make the unit as simple as possible, it is still necessary to do some minor maintenance to keep it operating as we designed it.

The TS3 hitch consists of three components; the frame unit which is manufactured by TrailerSaver, Inc (TSI), the head unit which is manufactured by Holland Hitch Company, and the air system which is manufactured by Air Lift Company. These instructions will cover all three components of the hitch.

The frame unit has 2 grease zerts located on the bushings of the hinge axle at the front end of the hitch (towards the front of the truck). We recommend greasing them at 4,000 mile intervals. We use and recommend Pennzoil Pennlith Ultra EP 2 grease which is a NLGI #2 grade or an equivalent high quality grease. This axle assembly has a very close tolerance, thus the necessity to frequently grease the axle assembly.

There is a 1" machined bolt holding the Holland head assembly in the frame, and while it does not have a grease zert and requires no maintenance, it should be checked periodically to make sure the nut is tight. It is also necessary to remove the bolt once a year to check for wear on the bolt and replace it if needed. Another way to check for wear on the bolt is to try to lift the front part of the Holland head assembly. If there is "play", and the head moves more than 1/8", it is time to replace the bolt. This machined bolt can be ordered from TrailerSaver.

The Holland head has several moving components that do require lubrication. The jaws that lock around the king pin of the 5<sup>th</sup> wheel rotate on 1-1/8 " pins that need to be lubricated with WD-40 or an equivalent lubricant. Spray the lubricant onto the pins that are exposed to the top of the hitch head and it will migrate around the bearing surface of the jaws. The head also articulates front to back on 1 1/4" pins located on either side of the head and they also need the same lubricant in the same manner.

There is a spring that keeps the head tilted to the rear for ease of hooking up and it is located at the front of and under the head. By standing at the rear of the hitch and looking forward you will be able to see it; it is approximately 2" high and 2" in diameter. From the back of the hitch you can spray WD-40 or white lithium grease on the bottom of the spring. This spring slides on the steel plate, and if you do not apply lubricant, it is possible the spring will "pop" out letting the Holland head fall forward, making it difficult to hook up to your trailer.

The air system does not require any maintenance except to keep the air springs protected from the UV rays of the sun. A custom fit cover is available for this purpose and it may be purchased from TrailerSaver, Inc.

If the preceding maintenance practices are followed, you will have many years of trouble free service from your TrailerSaver Air Suspension Hitch.