

# OPERATING INSTRUCTIONS Elite Series

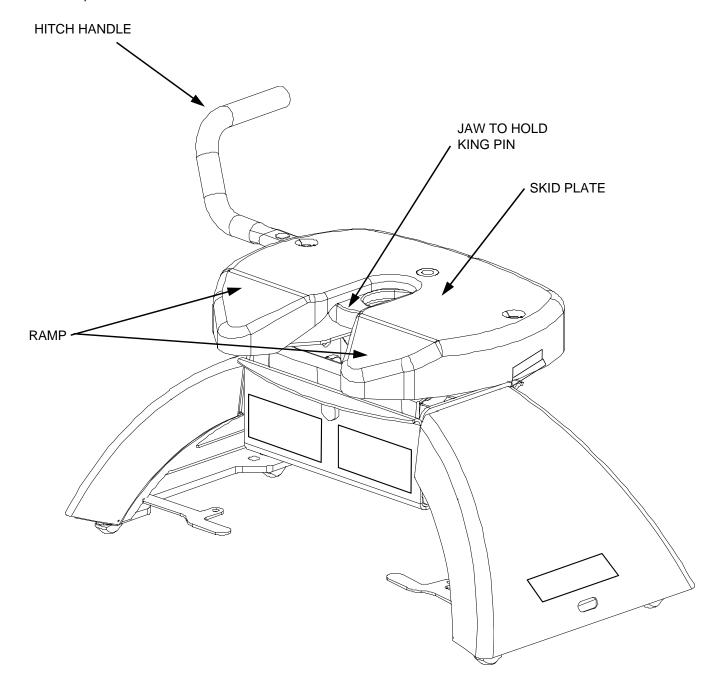
# 18K & 25K 5TH WHEEL HITCH

# **DEALER/INSTALLER:**

- (1) Provide this Manual to end user.
- (2) Physically demonstrate hitching and unhitching procedures in this Manual to end user.
- (3) Have end user demonstrate that he/she understands procedures.

## **END USER:**

- (1) Read and follow this Manual every time you use hitch.
- (2) Save this Manual and Hitch Warning Hang Tag for future reference.
- (3) Pass on copies of Manual and Hitch Warning Hang Tag to any other user or owner of hitch.



# **MARNING:**

# Failure to follow all of these instructions may result in death or serious injury

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#### **GUIDELINES FOR MATCHING HITCH TRUCK AND TRAILER**

If preparing to tow a 5th wheel trailer which you have not rating checked previously, please consult (See Section 6) of Elite Series assembly instructions to verify proper ratings.

## **BEFORE EACH TRIP:**

- 1. Lubricate skid plate surface of the hitch and pivot pin grease fitting (see Figure on cover of Manual) with automotive type chassis grease or use a plastic lube plate to provide a lubricated surface. Use lithium grease to lubricate pivot points of moving parts within the hitch.
- 2. Plastic lube plates (Towing Products No. 83001/40001) can be used to avoid messy grease. The plastic lube plate must not exceed 3/16 of an inch in thickness to ensure hitch will operate properly. **Lube plates must be 12 inches in diameter or larger to properly distribute king pin weight.**
- 3. Before each trip or maneuver, operate the handle and check that the jaw opens and closes freely.
- 4. See that all hitch pull pins (# 14, Figure 33) are in place and the spring retaining pins (#15, Figure 33) are installed (Figure 1). Note that hitch pull pins used with the Elite Series Hitch are 90 degree bent pins and if replacements are needed, please contact the factory. Check that all four anchor assembly handles are lynch pinned/locked through base arch shell.

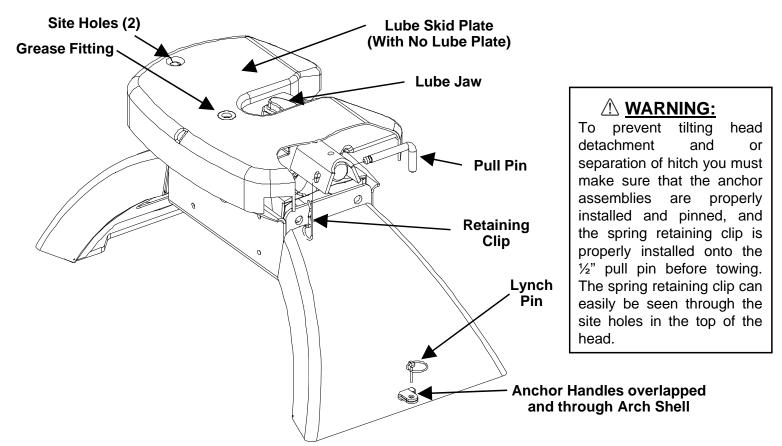
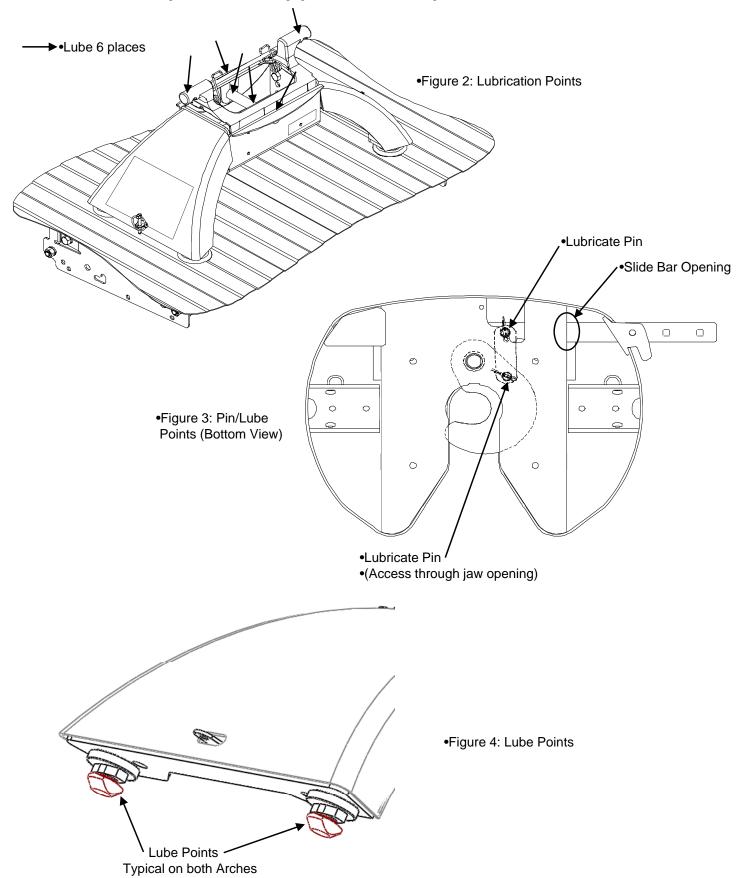


Figure 1 : Pins and Clips (Skid Plate cut away view)

## **LUBRICATION:**

- 1. Lube center section as shown in Figure 2 with lithium grease.
- 2. Lube pins (2) and slide bar opening as shown in Figure 3 with lithium grease prior to installation/operation.
- 3. Lube feet with lithium grease for easier engagement as shown in Figure 4.



#### Elite Series Fifth Wheel Assembly / Adjustment

**TOOLS** 

7/16", 9/16" and 15/16" Socket & Open End Wrench

200 lb-ft Torque Wrench

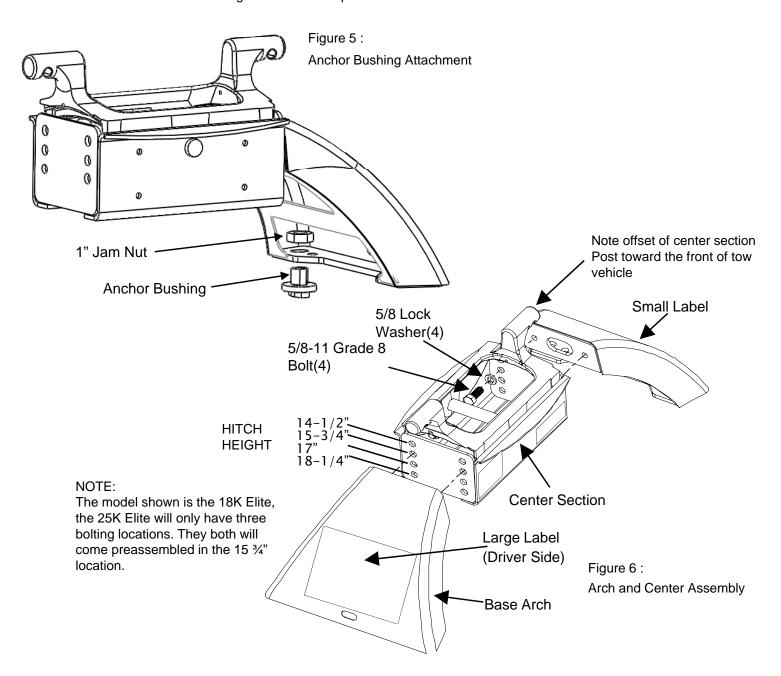
1-1/2" Box End Wrench

- 1. Check box for all components listed in Figure 1 and become familiar with component terminology. Center section, Arches, and Anchor assemblies may be packed assembled. If already assembled start at Step 7. Use this section if you need to adjust your assembly in the future.
- 2. Loosely assemble the four anchor bushings, less the anchor tee pins and handles, to the base arches using the 1" nuts (Figure 5). Loosely assemble the two base arches to the center section using 5/8-11 hex head bolts and lock washers (Figure 6).

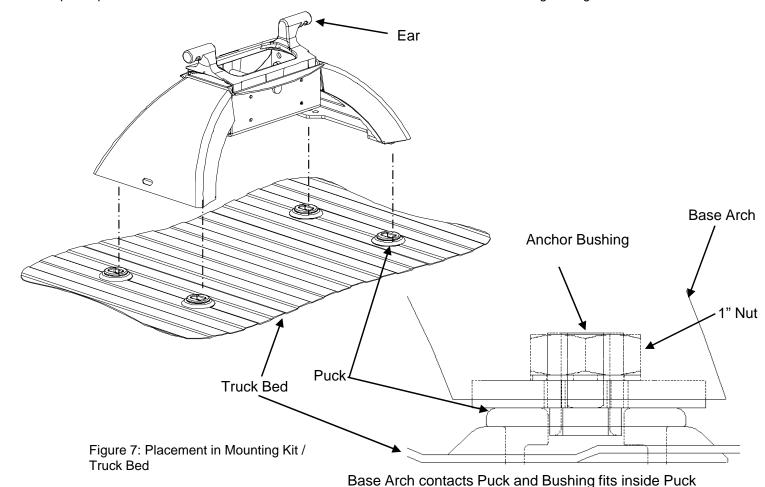
NOTE A: Hole positions used in assembly will need to be chosen based on the head height measurements taken previously. Choose calculated height closest to one of the following height dimensions: 14-1/2"(top holes), 15-3/4"(2<sup>nd</sup> holes down), 17"(3<sup>rd</sup> holes down), 18-1/4"(bottom holes on 18K model only).

NOTE B: The fore/aft position of the head relative to the tow vehicle axle can be adjusted by 1-1/2" based on the position of the center section (Figure 6). Choose the position that most closely positions the king pin 2" ahead of tow vehicle axle center and allows for proper towing clearances. See note in figure 6.

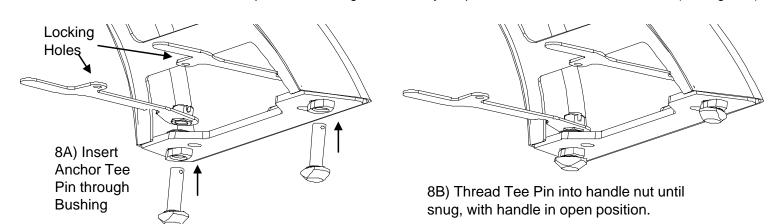
NOTE C: Base arch with the larger label must be positioned on the Driver's side of the vehicle.

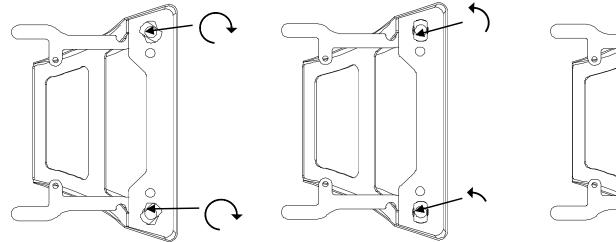


- 3. Place assembly into mounting pucks which are installed in truck(see Elite Series Mounting Kit Instructions). (Figure 7). Be sure that base arches are contacting all pucks with bushings slid into puck slots.
- 4. Tighten 5/8 bolts in center section to 170 ft.lbs. using 15/16 socket. Snug tight(no vertical play in anchor bushing assembly) all (4) 1" jam nuts inside base arches using a 1-1/2" box end wrench, then tighten each jam nut another 1/4 turn for proper torque requirement. Note that the unit is not secured down and should be held while tightening hardware.



- 5. Lift unit out of pucks. There should be minimal resistance. If there is some resistance, or you can not drop the unit back into the pucks, the unit should be adjusted; loosen 1" nuts and Center Section bolts and repeat Steps 3 & 4.
- 6. Insert anchor tee pin through bushing from bottom of base arch and thread into appropriate handle (see Figures 8A and 8B). (With notch in nut facing up and handle pointing toward you, the locking hole is to the right for the left handle and to the left for the right handle.) Keeping the handle in the unlocked position thread the anchor tee pin into handle nut until there is metal to metal contact with the bushing. Back tee pin off until parallel with bushing (less than ½ rotation), then loosen 1 more full rotation for nominal clearance adjustment (see Figures 8C, 8D, and 8E). At this point the slot in the handle nut and the hole in the tee pin should be aligned and the lynch pin needs to be inserted and closed (see Figure 9).





8C) The pin will snug up at an undetermined angle

8D) Loosen Tee Pin back to first parallel with bushing position(less than ½ rotation)

8E) Loosen Tee Pin 1 additional complete rotation for suggested adjustment.

Figure 8: Anchor Tee Pin and Handle Orientation (all shown in unlocked position)

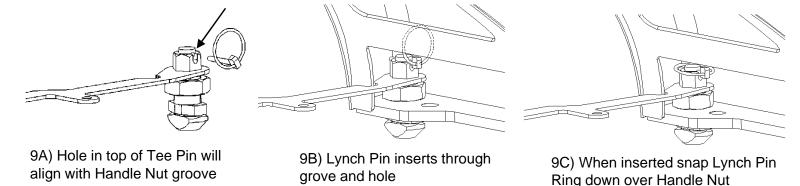
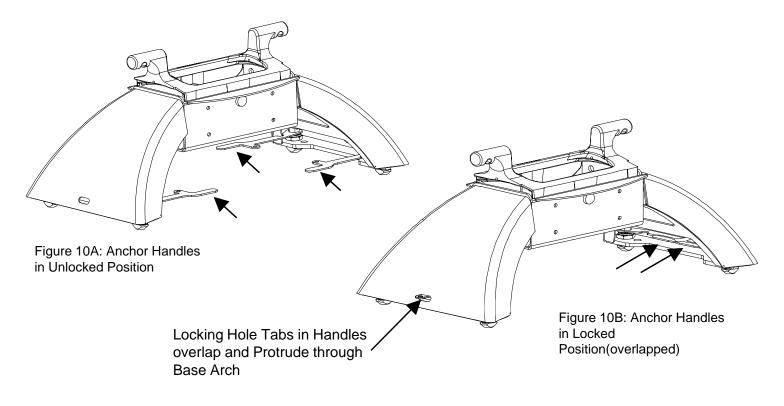


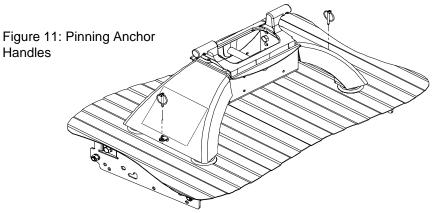
Figure 9: Inserting Lynch Pin

# WARNING: /

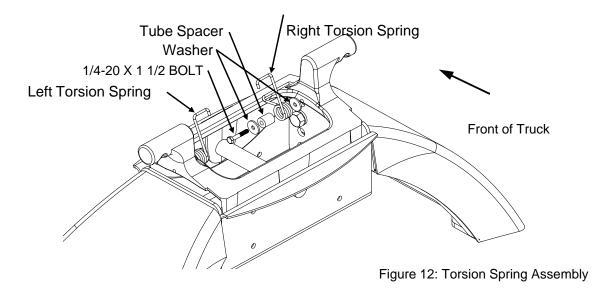
Failure to properly install handles could result in tow vehicle damage or truck and trailer separation.

- 7. Replace unit into pucks with all handles in unlocked position (see Figures 10A and 10B). Rotate handles into locked position. It is normal for some of the handles to have very little or no resistance; while others have a moderate amount of resistance when locking. Should a handle not be able to be locked by hand it needs to be adjusted, see Note D.
  - NOTE D: To adjust handle tension when locking first remove hitch from pucks. Next, while keeping the handle to tee pin orientation, remove the lynch pin. Rotate the tee pin counterclockwise ½ rotation, and replace lynch pin. Conversely, if there is too much clearance in the attachments when locked, the clearance can be removed by rotating the tee pin clockwise ½ rotation, and replacing the lynch pin.
- 8. Remove hitch assembly and lube (lithium grease) tee pins in bushings, replace unit in pucks.
- 9. Lock handles through arches on both sides and place lynch pins through overlapping handle holes (see Figure 11).

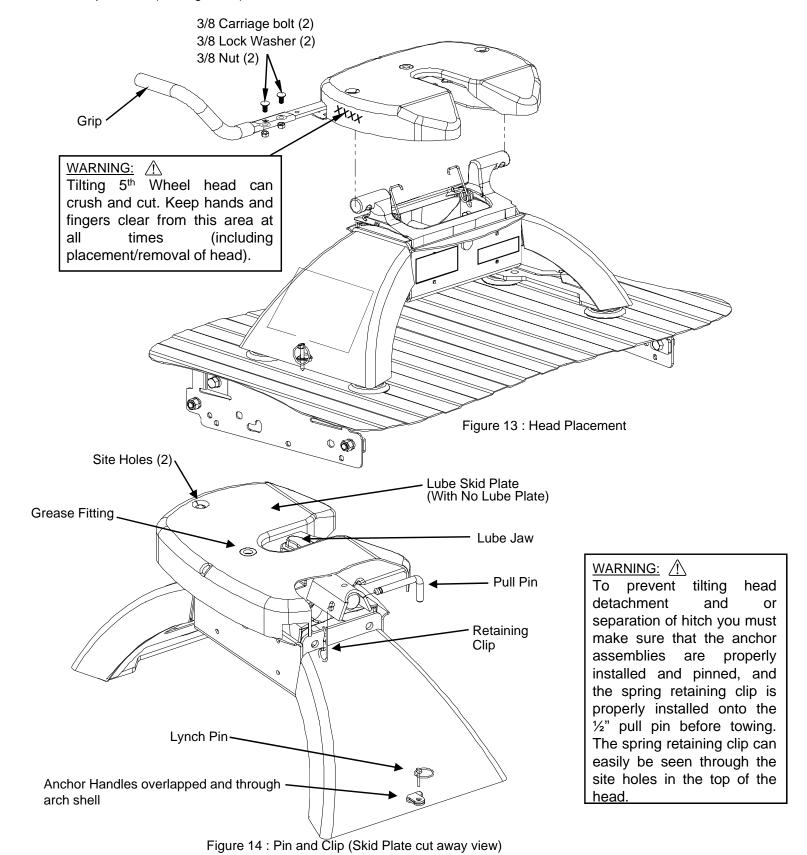




10. If not already installed the Left hand and Right hand torsion springs will need to be added to the center section so that the coil is facing the rear of the truck and wide hook sits over casting as shown in Figure 12. Tighten 1/4-20 X 1 1/2 BOLT with 7/16 socket to 8 ft.lbs.



- 11. Place and pin head onto center section (see Figures 13/14). Keep hands clear of ear placement while placing/removing head onto/off hitch base as noted on head labels. Head will tilt rearward with proper torsion spring installation (Step 10).
- 12. Add head handle and handle carriage bolts as shown in Figure 13.
- 13. Slide handle grip over handle tube (using liquid soap as a lubricant will ease installation).
- 14. Lube jaw and skid plate (If no lube plate is being used) with automotive type chassis grease (see Figure 14). The jaw pin comes greased from the factory. To insure smooth jaw operation, grease should be added every 6 months to grease fitting on top of head (see Figure 14). Refer to the Lubrication section in this manual.

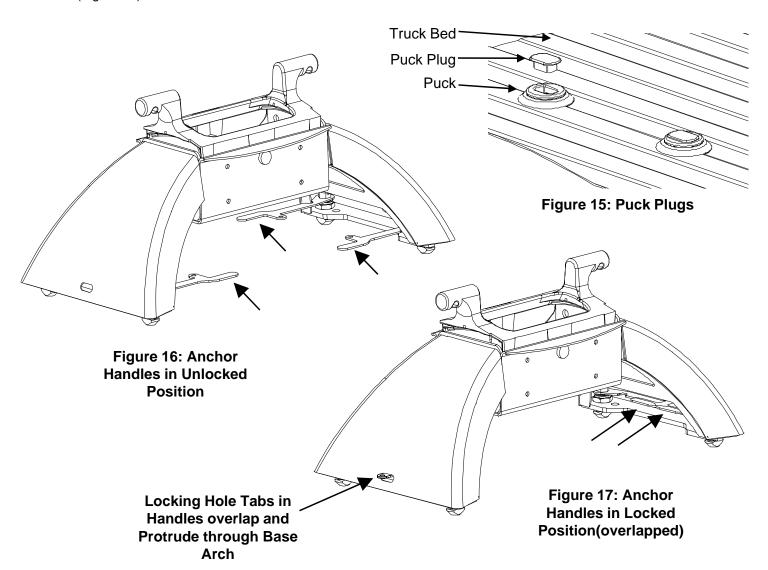


#### **HITCH INSTALLATION:**

- 1. Remove puck plugs from all (4) of the pucks in the truck bed (Figure 15) and store for use when hitch is removed.
- 2. Set Elite Series hitch onto the pucks, and rotate handles into unlocked position (approximately perpendicular with base arch, Figure 16) until hitch drops into pucks on all (4) corners.
- 3. Rotate (4) handles into locked position(with locking holes through base arch shell) and overlapped on each side (Figure 17).
- 4. Place lynch pins / locks through the overlapping handle holes on each side to anchor hitch into pucks (Figure 1).
- 5. KEEPING HANDS AND FINGERS AWAY FROM THE PINCH POINTS ON EACH SIDE OF THE HEAD, place head onto center section (Figure 13). Head should tilt rearward on the torsion springs.
- 6. Insert pull pin and clip on each side of the head to attach to the hitch center section (Figure 14).
- 7. Pull up on head to test that all attachments have been completed properly and hitch is ready to tow.

#### **HITCH REMOVAL:**

- 1. Remove pull pin and clip from each side of the head (Figure 14).
- 2. KEEPING HANDS AND FINGERS AWAY FROM THE PINCH POINTS ON EACH SIDE OF THE HEAD, lift head off center section (Figure 13). Store where dirt and debris will not get inside jaw mechanism.
- 3. Remove lynch pin / lock from the overlapping handle holes on each side of the hitch (Figure 17). Store lynch pins.
- 4. Rotate (4) handles into unlocked position (perpendicular with base arch shell, Figure 16). Lift each side of hitch out of pucks separately, handles may have to be jiggled slightly to align anchors with puck holes to remove.
- 5. Store hitch in dry place where dirt and debris will not get into anchor assemblies.
- 6. Press puck plugs (packed with mounting kit) into all (4) of the pucks in the truck bed to keep debris out of pucks (Figure 15).

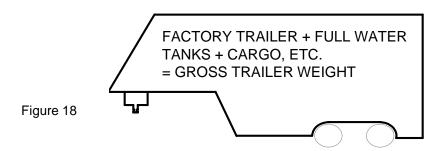


#### GUIDELINES FOR MATCHING HITCH, TRUCK, AND TRAILER

#### WARNING:

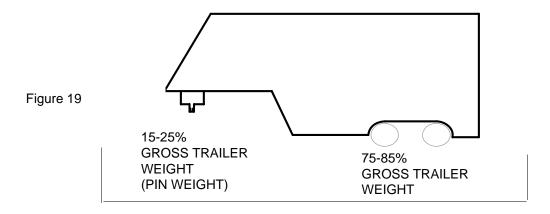
WARNING: Failure to check and follow tow ratings could result in tow vehicle damage or truck and trailer separation while towing.

- •Trailer and its contents together must not exceed truck, hitch and/or trailer tow ratings.
- •Towing vehicle must have a manufacturer's rated towing capacity equal to or greater than the gross trailer weight (dry weight of the trailer plus payload of the trailer). (See Fig. 18)
- •Gross weight of trailer must not exceed 18,000 pounds for the 18K Elite or 25,000 pounds for the 25K Elite.
- •King pin weight must not exceed 4,500 pounds for the 18K Elite or 6,250 pounds for the 25K Elite (See Fig. 19). If in doubt have king pin weight measured by gualified facility.



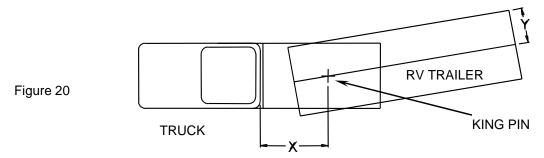
18K Elite 1. Check Tow Ratings: 25K Elite Vehicle Tow Rating:\_ Vehicle Tow Rating: Elite Series Hitch Rating: 18.000 lbs. Elite Series Hitch Rating: 25,000 lbs. Gross Trailer Weight (Figure 18):\_\_\_ Gross Trailer Weight (Figure 18):\_

- \*Trailer weight should be the lowest of these recorded ratings for safe towing conditions.
- 2. Cequent Performance Products hitches are designed for use with recreational fifth wheel trailers only. Hitch applications other than recreational fifth wheel trailers must be approved in writing by Cequent Performance Products' Engineering Department.
- 3. Use only a SAE 2-inch kingpin with your Elite Series Fifth Wheel Hitch.
- 4. Approximately 15%-25% of trailer weight should be on hitch (Pin Weight). See Fig. 19.

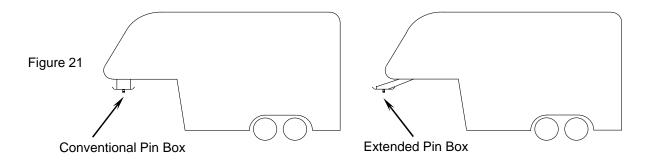


5. Trucks come in many different configurations. Cequent Performance Products' hitches are designed for use in light trucks such as the Ford F-Series, the Chevy Silverado and the Dodge Ram. Cequent Performance Products recommends the use of long bed (8ft) light trucks for the best combination in truck - trailer turning clearance.

Rule of thumb: The distance from the back of the truck cab to the center of the rear truck axle ("X" in Fig. 20), should be approximately 4 inches greater than one-half the trailer width ("Y" in Fig.20)

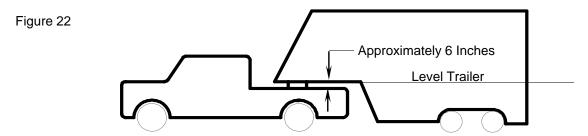


6. If a short bed pickup (less than 8 ft. but longer than 6 ft.) is to be used for towing, Cequent Performance Products recommends the trailer be equipped with a minimum 13" extended pin box to help gain additional truck - trailer turning clearance (See trailer manufacturer for options) (See Fig. 21). It also may be helpful for the 18K version to add an Elite series Slider (Part # 30070) for increased turning clearance for low speed, non-highway maneuvering.



<u>WARNING</u>: <u>No Not install this fifth wheel hitch on or attempt to tow with a short bed pickup truck that has a bed shorter than 6 ft. <u>Unless</u> you use a REESE Sidewinder or Revolution Pin Box. Doing so could result in vehicle damage, Serious injury, or Death.</u>

7. The height of the hitch and the pin box should be adjusted so the trailer is approximately level as it is towed. Allow approximately 6 inches clearance between the top of the pickup walls and the underside of the front of the trailer for pitch and roll of the trailer. (See Fig. 22). For off road use allow more clearance between pickup walls and trailer.



#### CAUTION:

The measurements above are guidelines. If your measurements are close to these numbers re-check clearances. If vehicle and/or trailer has any added bed vicinity accessories (i.e. fairings, air dams, ground effects, bed rails, etc.). Additional dimensioning and clearance checks have to be made.

#### 8. Hitch height determination:

With trailer leveled and on level ground measure from the ground to the king pin box, "A" in Figure 23. Secondly measure from the height of the inside of the truck bed, "B" in Figure 23. Dimensions "C" and "D" in Figure 23 can be used to determine the amount of clearance over the side rails, as mentioned in Note 7.

Hitch Height = 
$$A - B + 2$$
"

The 2" value is an estimate of suspension compression due to king pin weight of the trailer. This compression could range between 1"-5" depending on the truck being used and the trailer being towed.

D-C+2">6" as stated in Note 7.

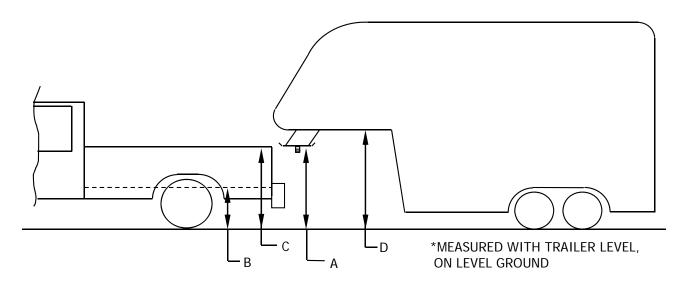


Figure 23

9. If a lube plate is to be used with a Elite Series 5<sup>th</sup> Wheel it must be at least 12" in diameter and not more than 3/16" thick. Cequent Performance Products offers this optional lube plate as part # 83001 / 40001.

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- •Connection for trailer wiring must be located at the side of the truck bed between the driver's seat and the rear wheel to prevent operators from working between the truck and trailer.
- •Avoid putting any part of your body under the trailer or between the truck and trailer. Unexpected or accidental movement of the truck or the trailer can cause serious injury or death
- •If you must place any part of your body under the trailer or between the truck and trailer you <u>MUST</u> perform <u>ALL</u> of the following steps:
  - •Check that the truck transmission is in park
  - •Check that the emergency brake is set
  - •Block in front of and behind all trailer tires
  - •Check that the trailer landing gear are resting on firm ground

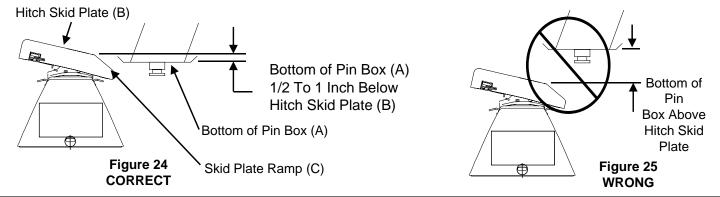
#### **HITCHING PROCEDURE:**

IMPORTANT: YOU ARE RESPONSIBLE FOR SAFE HITCHING AND UNHITCHING OPERATIONS. DO NOT RELY ON OTHERS TO PERFORM THESE DUTIES. YOU MUST PERSONALLY MAKE SURE THE FOLLOWING STEPS ARE PERFORMED IN THE FOLLOWING ORDER!

<u>MARNING:</u>

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS INJURY.

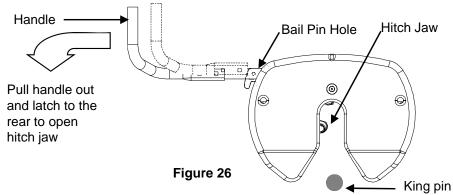
- Place blocks (sometimes called "chocks") firmly against front and rear of each trailer wheel to prevent any possible forward or rearward motion. DO NOT REMOVE BLOCKS UNTIL EACH OF THE FOLLOWING STEPS <u>AND THE PULL TEST</u> HAVE BEEN COMPLETED. Lower tailgate if necessary. Clearance of the lowered tailgate to the trailer needs to be monitored during hookups as some manufacturer combinations of truck and trailer have little or no clearance.
- 2. Using trailer jacks, adjust trailer height following the directions in the trailer manual so that bottom of trailer pin box ("A" in Figure 24) is ½ to 1 inch below skid plate (See "B" in Figure 24). During the hitching maneuver, the bottom of the trailer pin box should come in contact with skid plate ramp ("C" in Figure 24).



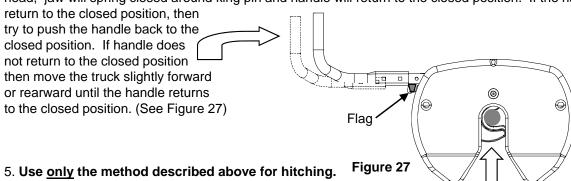
# ⚠ WARNING:

Failure to follow this instruction may result in king pin being too high and coming to rest on top of closed jaws or not completely inside jaw. (Figure 25). This could result in trailer separating from hitch. Trailer separation may result in death or serious injury if anyone is under the trailer or between truck and trailer when separation occurs.

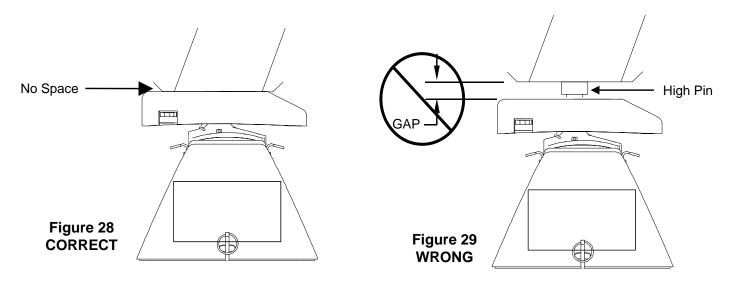
3. Remove bail pin from bail pin hole(see Figure 26). Then pull handle out and rearward to hold open. NOTE: Hitch jaw must be in the open position for king pin to enter the hitch.



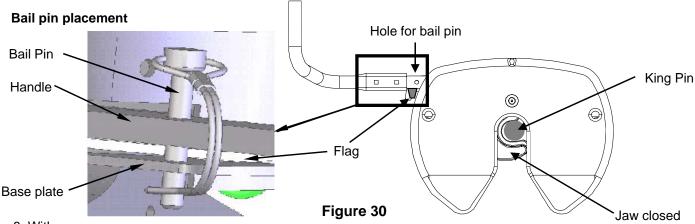
4. With handle in the open position (See Figure 26), back truck slowly into trailer. As king pin completely enters head, jaw will spring closed around king pin and handle will return to the closed position. If the handle does not



6. With all trailer wheels still firmly blocked, landing gear still resting on firm ground and supporting trailer weight, and truck stationary and in park with emergency brake on: visually check that bottom of pin box is resting on top of the hitch. THERE SHOULD BE NO SPACE BETWEEN THESE SURFACES (see Figure 28). If space exists, (see Figure 29) trailer has not been properly hitched. DO NOT TOW! Instead, repeat above steps until trailer is properly hitched. DO NOT PLACE BODY UNDER TRAILER TO PERFORM THIS INSPECTION!



7. Place bail pin through the bail pin holes in the handle and base plate to make sure the hitch jaw is locked closed. IF FLAG BLOCKS HOLE FOR BAIL PIN, TRAILER HAS NOT BEEN PROPERLY CONNECTED TO HITCH. DO NOT TOW! Repeat above steps until trailer is properly hitched. (see Figure 30)



- 8. With:
- •All trailer wheels still firmly blocked in front and behind each tire, and
- •Truck stationary with the emergency brake on, and
- •Trailer landing gear still resting on firm ground and supporting trailer weight; and
- •Truck stationary and with emergency brake on:

Connect electrical cable between truck and trailer, connect breakaway switch cable from pin box to a permanent part of truck, and raise tailgate of truck. Do not tow trailer until the Pull Test has been successfully completed.

# **↑** WARNING:

Do not attempt to hitch by using trailer jacks to lower trailer and king pin. This could result in king pin coming to rest on top of skid plate instead of within hitch opening where jaws are located. King pin could slide off hitch and trailer could drop, resulting in death or serious injury (see Figure 31).

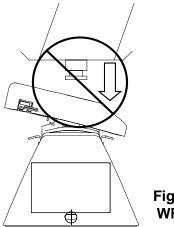


Figure 31 WRONG

## **MARNING:**

- •Connection for trailer wiring should be in the side of the truck bed between the driver's seat and the wheel well for the back truck axle
- •Installation of connection rearward of the wheel well may result in user placing body between truck and trailer. WHENEVER POSSIBLE, AVOID PUTTING BODY UNDER TRAILER OR BETWEEN TRUCK AND TRAILER!
- •If you need to place any part of your body under trailer or between truck and trailer:
  - All trailer tires <u>MUST</u> be blocked in front and behind each tire <u>AND</u>
  - Trailer landing gear MUST be resting on firm ground AND
  - Truck MUST be stationary, in park, with emergency brake on!

#### **PULL TEST**

# **⚠ WARNING:**

Failure to perform pull test may result in death or serious injury

- 1. With all trailer wheels still firmly blocked, and
- 2. Trailer landing gear still resting on firm ground and supporting trailer weight and,
- 3. Truck stationary and with emergency brake on:
- 4. Make sure no one is between truck and trailer, Return to cab of truck and release truck's emergency brake. Apply trailer brakes. Try to pull trailer slowly forward with the truck. If the trailer is properly hitched, the wheel blocks and trailer brakes should keep the truck from moving forward.

NOTE: If trailer is not properly hitched, trailer will separate from hitch and truck will move forward leaving trailer behind. If you followed all previous steps, the trailer will not drop or fall.

# **⚠ WARNING:**

Failure to keep wheels blocked and landing gear down could result in trailer suddenly moving or falling. This could result in death or serious injury!

- 5. After successfully performing above steps, fully raise trailer landing gear (see trailer manual).
- 6. Check and inspect all electrical circuits for proper operation. (Clearance lights, turn signals, stop lights, etc.).
- 7. Remove and store all trailer wheel blocks.

#### **UNHITCHING PROCEDURE:**

#### PERFORM THE FOLLOWING IN THIS ORDER:

- 1. Make sure truck is in park with emergency brake on.
- 2. Place blocks firmly against front and rear of each trailer wheel to prevent any possible forward or rearward motion.
- 3. Using trailer jacks, lower trailer landing gear following the directions in the Trailer Manual until feet of landing gear are resting on firm ground.

## **⚠ WARNING:**

Trailers that are not stable or properly hitched can fall and cause death or serious injury! To avoid death or serious injury:

- All trailer tires MUST be blocked in front and behind each tire AND
- Trailer landing gear MUST be resting on firm ground AND
- Truck MUST be stationary, in park, with emergency brake on!
- 4. Lower truck tail gate.
- 5. Disconnect power cable and breakaway switch cable between truck and trailer.
- 6. Remove bail pin from hole in handle.
- 7. Pull hitch handle out completely until it latches in open position so that king pin is no longer securely grasped by hitch jaws (see Figure 26). Trailer is now free from hitch and truck. If handle does not pull out, there is probably pressure against the jaw. To relieve this pressure, back the truck slightly. Reset truck emergency brake. Then pull hitch handle out completely until it latches in open position.
- 8. AFTER MAKING CERTAIN NO ONE IS STANDING BETWEEN TRUCK AND TRAILER OR IN FRONT OF TRUCK, drive truck slowly away from trailer.

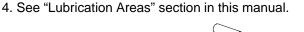
# **⚠ WARNING**

Whenever possible, avoid putting body under trailer or between truck and trailer If you need to place any part of our body under trailer or between truck and trailer:

- •All trailer tires MUST be blocked in front and behind each tire AND
- •Trailer landing gear MUST be resting on firm ground AND
- •Truck MUST be stationary, in park, with emergency brake on!
- 9. Hitch jaw will automatically close as the king pin is removed from the jaw.
- 10. KEEP WHEEL BLOCKS IN PLACE. This will keep trailer from moving unexpectedly

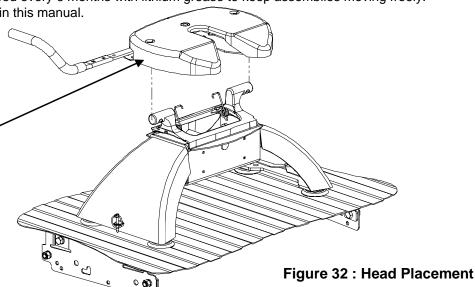
#### **MAINTENANCE:**

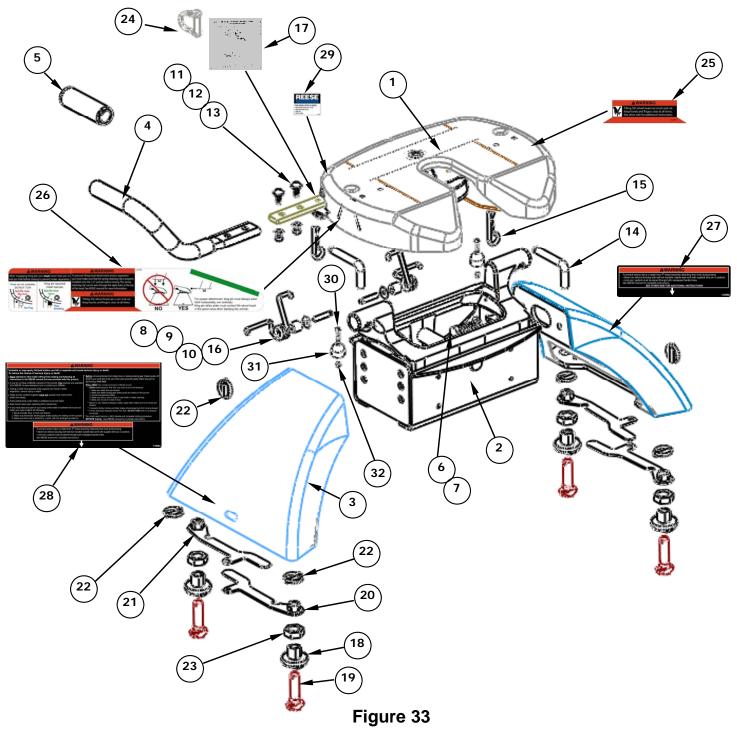
- 1. Recheck tightness of all hardware every 1000 miles of use. All 5/8" bolts have a torque specification of 170ft.lbs., and 1" jam nuts should be box wrench snug plus1/4 turn.
- 2. See "Before each trip" section in this manual.
- 3. Anchor assemblies should be lubed every 6 months with lithium grease to keep assemblies moving freely.



# **MARNING:**

Tilting 5<sup>th</sup> Wheel head can crush and cut. Keep hands and fingers clear from this area at all times (including placement/removal of head).





REF #	QTY.	DESCRIPTION
1	1	HEAD ASSEMBLY
2	1	CENTER SECTION
3	2	BASE ARCH
4	1	HANDLE TUBE
5	1	HANDLE GRIP
6	4	5/8-11 GR8 HEX HEAD BOLT
7	4	5/8 LOCK WASHER
8	2	1/4-20 GR2 HEX HEAD BOLT
9	2	TUBE SPACER
10	2	TORSION SPRING
11	2	3/8 CARRIAGE BOLT
12	2	3/8 NUT
13	2	3/8 LOCK WASHER
14	2	1/2" PULL PIN
15	2	SPRING RETAINING CLIP
16	2	WASHER

REF #	QTY	DESCRIPTION
17	1	HANG TAG
18	4	ANCHOR, BUSHING
19	4	ANCHOR, TEE PIN
20	2	HANDLE, LT ANCHOR
21	2	HANDLE, RT ANCHOR
22	6	LYNCH PIN
23	4	1" NUT
24	1	BAIL PIN
25	1	LABEL, PINCH POINT
26	1	LABEL, OPERATING WARNING
27	1	LABEL, ANCHOR PIN
28	1	LABEL, WARNING
29	1	LABEL, RATING 1
30	2	#8-32x1 MACHINE SCREW
31	2	RUBBER BUMPER
32	2	#8-32 LOCK NUT