

STEADYfast[®] Stabilizer
Installation Notes
Fifth Wheel and Travel Trailers
08/30/10

Tools needed for installation (may vary slightly for different installations).

- Protective Goggles or Face Shield
- Power Drill/Driver and/or 1/2" drive socket set
- 7/16, 1/2 , and 3/4 Wrenches
- 2 Locking Pliers or ratcheting clamps (for trailers without covered bottom)
- Sharp 5/16 and 17/64 drill bits (17/64 bit included)
- Light oil or Spray Lubricant
- Please feel free to call me, Paul Hanscom, on my cell phone (661 496-4594) if you have any questions.

Before you start:

- Check to be sure you have all parts
- Have a sharp 5/16 drill (to make indent for 17/64 drill) and a sharp 17/64 drill (to drill holes for 5/16 self threading bolts). Holes will drill best at about 1200 rpm with firm pressure on your drill. Higher speed will burn drill tip. It may be easier to drill a smaller hole first such as 3/16 inch as a pilot hole, then drill the 17/64 hole. This will greatly reduce the amount of pressure you need to apply to the drill.
- Self threading 5/16" bolts are provided to attach the locking bracket to the frame. They are provided to facilitate a simpler installation on trailers that have covered under carriage. Once you determine where the brackets are going to be located, remove the screws that hold the cover along the frame about 3 feet on each side of the location. Then pull the cover down far enough that you can feel behind the frame and be sure that there is nothing there that will be damaged when the bolts are installed. Also, measure over to the frame and mark on the outside of the cover the frame location. Now you can replace the cover screws and hold the bracket in the proper location. Mark one hole location, drill the hole and bolt the bracket to the frame with one bolt. Now you can drill the holes for the other three bolts and install them.
- The locking brackets may also be welded to the frame. The welds should be at each corner of the bracket and provide at least the same strength as the provided bolts.
- Before you drill any hole in the frame, be sure there are no electrical wires, waterlines or gas lines on the other side of the hole that may get damaged.
- Have 1/2 inch ratchet or heavy duty drill/driver with 1/2 inch socket for installation of self threading bolts
- Review photos of typical installations
- Review figures 1-2 showing placement of stabilizers
- Be sure wheels are chocked and trailer is safely supported as per the trailer manufacturer's recommendations.

Please Wear Eye Protection!

Getting Started:

1. **Review the diagrams and pictures** for your trailer type and frame type to determine preferred locations for the stabilizers to be installed. Determine which jacks to attach the **Steadyfast[®]** foot plates. The decision should be based ease of installation and clearance for the braces. Foot plates may be installed on opposite sides on the front and back.
2. If you have a Fifth Wheel, hitch it up to the tow vehicle so the jacks can be lifted off the ground as needed during the installation.
3. Lay out all the parts next to the trailer in the same position they will be installed. Refer to figures 1 and 2.
4. Fully retract the jacks that you plan to attach **Steadyfast[®]** foot plates. Check for clearance by line of sight, a string, or a straight stick reaching from the bottom of the jack to the locking bracket location (the same line of sight the brace will be installed). This is to confirm there will not be any interference between the braces and a trailer component. If there is interference, you will need to adjust the locking clamp and/or the jack location.
5. Preassemble all brackets and parts leaving all nuts loose. Install all fasteners exactly as shown in photos “g” through “m”.

Foot Plates:

6. Landing jack **Steadyfast[®]** foot plate installation. Bypass this step if not installing on fifth wheel. Assemble the U bolts on one of the foot plates. See photos “g” and “h”. The nuts must be tightened until at least two threads of the U bolt are showing past the end of the nut. They may be tightened further to bring the foot plate closer to the bottom of the drop leg if desired, but be sure to leave at least the same amount of clearance as the stock foot plates. Install the **Steadyfast[®]** foot plate that has the U bolts on top to the selected drop leg by removing the pin holding the old base plate, replacing the old base plate with the new and replacing the pin.
7. Scissor Jack **Steadyfast[®]** foot plate Installation. This procedure for scissor jacks may be used to install on any other jack with a base that the footplate can be bolted to. See photos “d1,d2,d3”. Holes are predrilled to fit several of the common scissor jacks that have holes in the base plate. Two lengths of bolts are provided, 1” and 3/4”. The head of the bolt should be on the scissor jack side to avoid interference with the jack operation. Washers are also provided for the head side as some of the scissor jack holes are larger than the required bolt diameter. Install the top locking nut provided on the **Steadyfast[®]** base plate side. The nut must be fully engaged with at least two threads showing. If not, you will need to install a longer bolt. The end of the bolt cannot extend below the bottom of the lowest outer edge of the **Steadyfast[®]** base plate or it will contact the ground. If it does you will need to install a shorter bolt or cut the extra off.
 - If the holes in the **Steadyfast[®]** foot plate match the jack base plate, simply bolt the **Steadyfast[®]** foot plate to the jack base. Tighten the nuts snugly. Go to Step 8.
 - If there are no holes in jack base or they don’t match the ones in the **Steadyfast[®]** foot plate, you will have to drill hole(s) in the jack base. It is very likely you can use the existing holes in the **Steadyfast[®]** foot plate as a guide.

- The next step is awkward, but there is not an easy way to do it with the scissor jacks on the trailer. If the jacks are bolted on the trailer it may be easier to remove the jacks in order to drill the holes. Hold the **Steadyfast**[®] foot plate up to the bottom of the jack base with the “T” end toward the center of the trailer to mark the first hole location. The **Steadyfast**[®] foot plate should be offset toward the outside of the trailer. In other words, the “T” end should be sticking out from the scissor jack base less than the opposite end. The exact amount is not critical, about 1 ½ inches difference is good. See photo “d”. Mark the hole in the best location at the “T” end. Drill a 5/16 inch hole at the marked location. Bolt the **Steadyfast**[®] foot plate to the scissor jack base using the hole just drilled. Now you can drill the second hole at the opposite side of the footplate using the hole in the **Steadyfast**[®] foot plate as a guide. Install the bolt, flat washer, and, lock nut in the second hole and tighten both nuts snugly.

Swivel Clamp and Braces:

8. If not already assembled. Assemble the swivel clamp, outer brace, and inner brace. See photos “i”, “j”, and “k”.
9. With the jacks in lowered position, extend and place the braces under trailer so they are directly under where the locking clamp will be installed.

Locking Bracket:

10. If you are installing on an I-Beam frame wider than 2 3/8 inches or Box frame that is 2 inches or wider proceed to step 12. If you are installing on Channel Frame or I-Beam frame less than 2 3/8 inches wide, or Box Frame less than 2 inches proceed to next step.
11. Review Figure 4 and photos “m” and “n” to see how the locking bracket brace is installed on channel frame. Box Frame is installed in a similar manner. Review Figure 4 and photos “m” and “o” if you are installing on an I-Beam frame less than 2 3/8 inches wide and proceed to the note below. The locking bracket brace is always installed against the flat side of the frame channel. The locking bracket brace can be shifted on the locking bracket base so it is oriented in the proper direction. Install the two 5/16” x 1 1/4” fine thread bolts and tighten the lock nuts.
 - Note for I-Beam Frames less than 2 3/8 inches wide. The locking bracket brace is installed in a “clamp” position as shown in photo “o”. Install the two 5/16” x 1 1/4” fine thread bolts and only tighten until there is approximately 1/4” space between the locking bracket and the locking bracket brace. These two bolts should be tight against the I-Beam in the following steps.
12. Slip the locking bracket over the end of the inner brace and position it on the frame rail (I beam, Box or Channel). Hold the bracket to the frame rail with locking pliers without covering any of the holes. On channel frames be sure the locking bracket brace is tight against the flat side of the channel.
 - Note: As an alternative to using locking pliers and when installing on trailers with covered bottoms or square tube frames, the following procedure works well: When you are holding the locking bracket in position, carefully mark one of the

holes with a pencil. Center punch the hole, drill a 3/16" pilot and then the 17/64" hole. Install the one bolt through the locking bracket and tighten firmly. This will hold the locking bracket in place during the next steps. Read notes in step 17 before installing bolts.

13. Adjust the locking bracket horizontally (on I-Beams wider than 2 3/8 inches only) so it is approximately perpendicular to the brace. Then attach a second set of locking pliers on the opposite side.
14. Slide the brace out of the locking bracket.
15. Using the holes in the locking bracket as a guide and a sharp 5/16 drill bit, drill into each hole just enough to leave a small indentation in the frame rail (be sure to check the area behind where you plan to drill to be sure you will not damage any water, gas, or electrical components). This is to insure that when you drill the hole in the frame with the 17/64 inch bit it will be in the correct location. It is critical that these holes are drilled 17/64 inches. If they are not you will need to drill the holes 5/16 diameter and use supplied bolts with locking nuts (these nuts are not included).
16. Remove the locking bracket and drill the holes with the 17/64 inch bit completely through the frame rails(be sure to check the area behind where you plan to drill to be sure you will not damage any water, gas, or electrical components).
17. Clamp the locking bracket back on the frame rail and install the 5/16 self threading bolts. Using a 1/2 inch drive ratchet with extension and socket or a 3/8" impact wrench makes this job easier. Read notes below before proceeding.
 - Note: Apply a small amount of lubricant (oil) to the tip of each bolt. If you do not apply the oil, there is a good chance you will have much difficulty installing the bolts. Spray lubricant or engine oil will work fine.
 - Note: You will need to push hard to get the self-threading bolts started. Once the bolt is started, after a few turns it may get harder to turn. If this happens, back out the bolt, clean the metal cuttings from the bolt and the hole. Then continue with installation. Repeat as necessary.
 - Note: You may start the threading of the holes with a 5/16 coarse thread tap. This will make the installation easier, however, it will take a longer time.
18. On channel frames and I-Beam frames less than 2 3/8 inches, drill the locking bracket brace hole in the frame and install the 5/16" self threading bolt and lock washer as described in steps 15 to 17 above. On the I-beam frame both this bolt and the other two bolts should be tightened at the same time to clamp the bracket to the I-Beam. See photos "n" and "o".
19. Slide the brace back into the bracket.
20. Repeat steps 13-19 for other two locking brackets.
21. Make sure all four (3 for channel frame) bolts have lock washers, are tight and the bracket has no movement.
22. Assemble the remaining parts of the locking assembly. See photo "l". The 1/2" lock nut should be installed at least two turns after it becomes hard to turn. This will keep the locking handle from vibrating off while traveling in case you forget to tighten it.

Brace Adjustment:

23. Raise the jacks to the full up position (retracted fully).
24. Slide the Inner brace through the locking bracket and with the jack fully raised allow the inner brace to extend six inches past the bracket.
25. Adjust the bent end of the inner bracket to its lowest position (the bend (elbow) should be at its highest position) and tighten the two locking bolts on the outer brace to lock the inner brace in place. See photo “k”. Make sure the bolts are tight.
 - Note: The inner brace must extend at least 4 inches into the outer brace
26. Repeat steps 20-24 for the other two brackets and braces. Then tighten the 3/8 “swivel clamp nuts and bolts shown in photo “i”.
27. Lower the jacks to the fully lowered position and confirm that at least 2 inches of the inner brace extends beyond the bracket. See photo “f”. If not, adjust the inner brace so it extends 2 inches in the lowered position.
28. Install the clamp bracket, threaded handle, and lock nut on each of the locking clamp brackets. See photo “l”

Final Steps:

29. Check to be sure that all nuts and bolts are tight except for bolt indicated in photo “j” which will be discussed below.
30. Adjust swivel clamp bolt indicated in photo “j” with the arrow. **This adjustment is critical to the correct operation of the Steadyfast® stabilizing system.** If it is too tight it will be difficult to raise the jacks and may cause damage to the jack or stabilizing system. If it is too loose the stabilizing system will not work well. This swivel clamp acts as a clamp on the brace connector eliminating any movement in the joint. Tighten it just until you feel an increase in torque and then another 1/8 turn. Continue to adjust until it takes a firm pull to wiggle foot plate on drop leg or floating foot plate jacks. On scissor jacks it should become harder to move the bottom of the jack back and forth.
31. Install the **Warning Labels** on trailers with power landing jacks. **Always release the locking clamps before operating any jack.** Install the warning in full view next to the landing jack switch.

Operation:

32. Set up the trailer and level per your manufacturer’s directions and/or as per accepted industry guidelines. Although wheel chocks are not necessary to stabilize your trailer, **Always** use wheel chocks for safety when the trailer is not hitched to the tow vehicle. Adjust all the jacks up slightly more than normal to be sure they are firm on the ground. About 4-6 extra turns on the scissor jack would be a good rule of thumb.
33. How you place blocks under your jacks is important. If the block moves, then the trailer will move. Single large blocks will work in many locations, but we recommend using double blocks (see figures p and q) on gravel, grass, or other soft or loose soil. We have had best performance with the blocks set in a “V”. We found that other blocking scenarios may roll back and forth on the gravel or teeter-totter on sod.
34. Tighten the locking handle firmly at all three locations. Check to see if the trailer has any movement. If there is movement, inspect the bracing system and jacks while someone is

pushing on the trailer to shake it. It is usually pretty easy to find the problem. Most commonly it turns out to be the jacks are not down tight enough, or the blocks are allowing movement.

35. When preparing trailer to tow, release all locking clamps several turns before operating any jack to be sure the braces slide freely in the locking brackets. It is best to tighten locking clamps before traveling to reduce rattling and unnecessary wear on the system.
36. Periodically lubricate the swivel clamp pivot points and the locking clamp threads with light oil or spray lubricant to keep them working smoothly and to protect from rust.
37. RELAX AND ENJOY!

Typical installation on front of fifth wheel trailer and Travel trailer.



Photo a



Photo b

Typical installation on rear of fifth wheel or travel trailer using scissor jacks.



Photo c



Photo d (1)

Steadyfast[®] foot plate bolted to stock base plate on “stab”, “telescoping” or swing arm type jacks.



Photo d(2)

Steadyfast[®] foot plate bolted to stock base plate on power twin jack. Note corner of stock foot plate is trimmed to make space for swivel clamp



Photo d (3)

Typical locking assembly installation for I-Beam frame cross brace



Photo e

Typical locking assembly installation for I-Beam frame front to back brace



Photo f

Installation of U bolts into foot plate for fifth wheel drop legs



Photo g

Nuts must be tightened until at least two threads are showing past the end of the nut.



Photo h

Steadyfast™ foot plate with swivel clamp showing 3/8"x 1 3/4" fine thread bolt washer and lock nut installation.

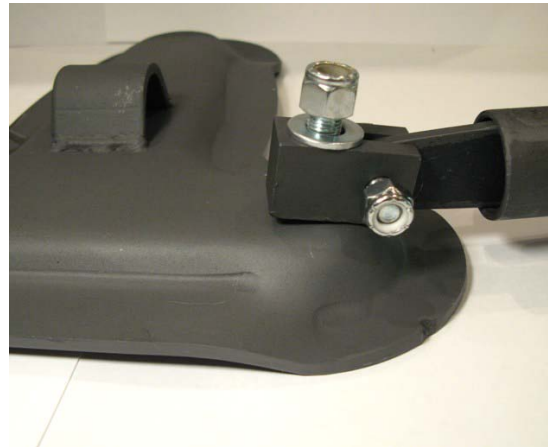


Photo i

Steadyfast™ foot plate with swivel clamp showing 5/16"x 1 1/4 " fine thread bolt lock washer, and lock nut installation. Lock washer must go under head of bolt.



Photo j

5/16" x 3/4" coarse thread bolts for adjusting brace length during installation.



Photo k

Locking bracket assembly including 5/16" x 1" coarse thread cutting bolts with lock washers and locking nut above handle.



Photo l

Channel frame locking bracket brace assembled on locking bracket. Using two 5/16" x 1 1/4" fine thread bolts with locking nuts.



Photo m

Channel frame locking bracket brace and locking bracket attached to channel frame.



Photo n

Channel frame locking bracket brace assembled on narrow I Beam frame.



Photo o

Example of using two blocks under **Steadyfast**[®] foot plates to provide solid base on hard surfaces.



Photo p

Placing two blocks in a “V” shape works well when stabilizing the trailer on softer ground such as gravel or grass



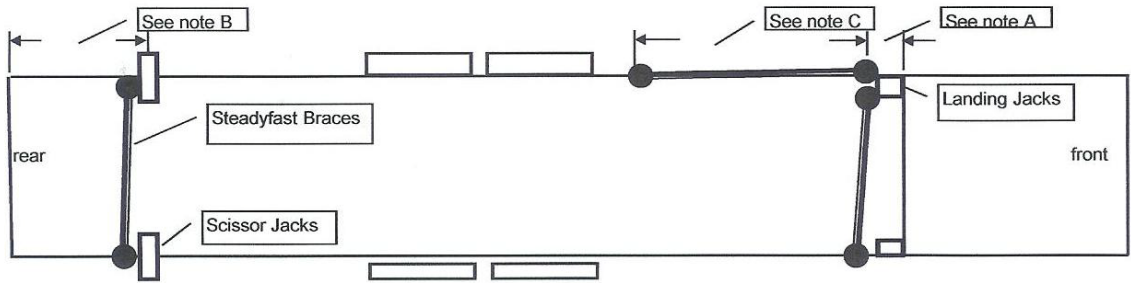
Photo q

If you need to add height, stack the blocks in a “Lincoln log” form with a “V” on the top. This will provide much steadier support than large blocks stacked on top of each other.



Photo r

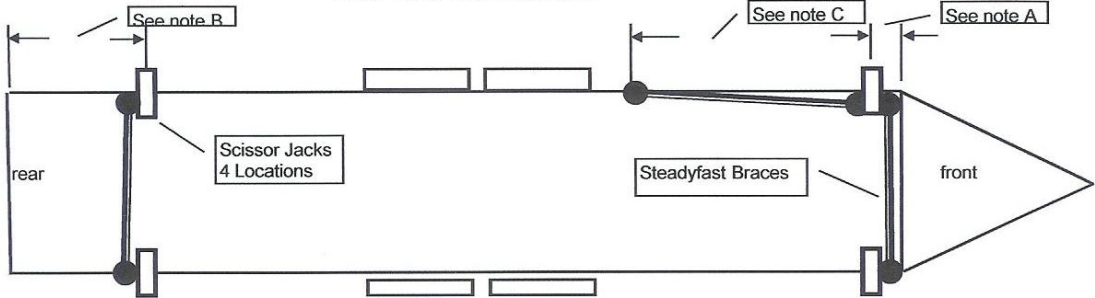
FIGURE 1
Fifth Wheel Brace Locations



NOTES:

- A. Install the stabilizers on one of the landing jacks.
Base plates may be installed on either side of trailer.
- B. Install rear stabilizer at existing jack location if adequate clearance.
Rear stabilizer may be placed several feet from the rear of the trailer.
- C. Front to Back stabilizer brace should be approximately the same length as the cross stabilizer braces. Maximum length is 72 inches from end of inner brace to end of outer brace. Minimum length is 58 inches.

FIGURE 2
Travel Trailer Brace Locations



NOTES:

- A. Front stabilizers should be installed on scissor jacks placed near the front of the trailer.
Base plates may be installed on either side of trailer.
- B. Best location varies with trailer design and construction.
Rear stabilizer may be placed several feet from the rear of the trailer.
Install rear stabilizer at existing jack location if adequate clearance.
- C. Front to Back stabilizer brace should be approximately the same length as the cross stabilizer braces. Maximum length is 72 inches from end of inner brace to end of outer brace. Minimum length is 58 inches.

FIGURE 3

I Beam Frame - Locking Bracket Installation

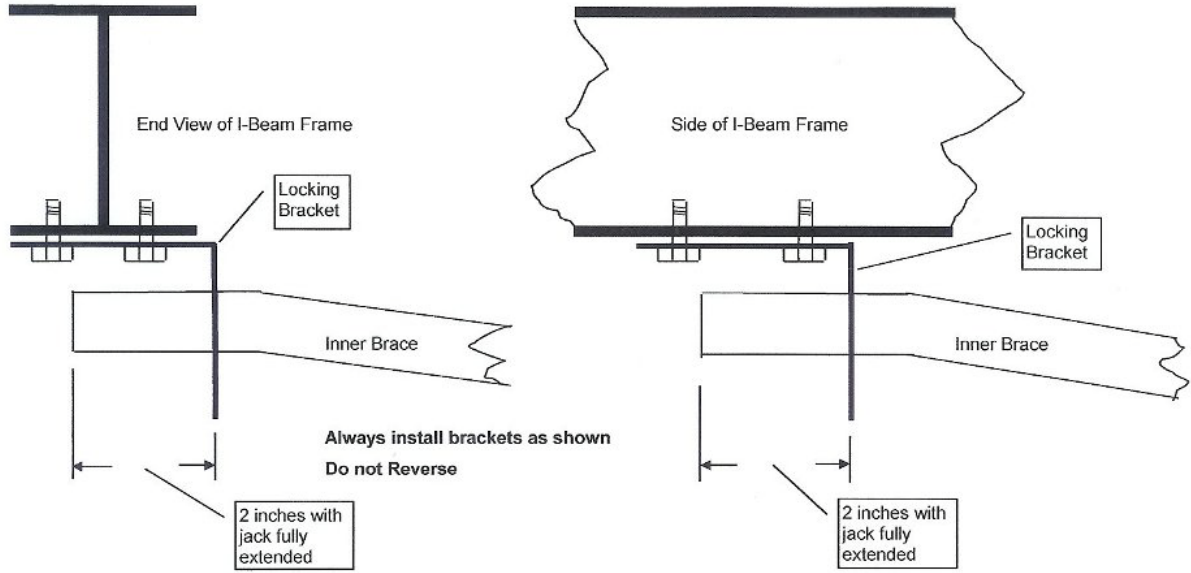
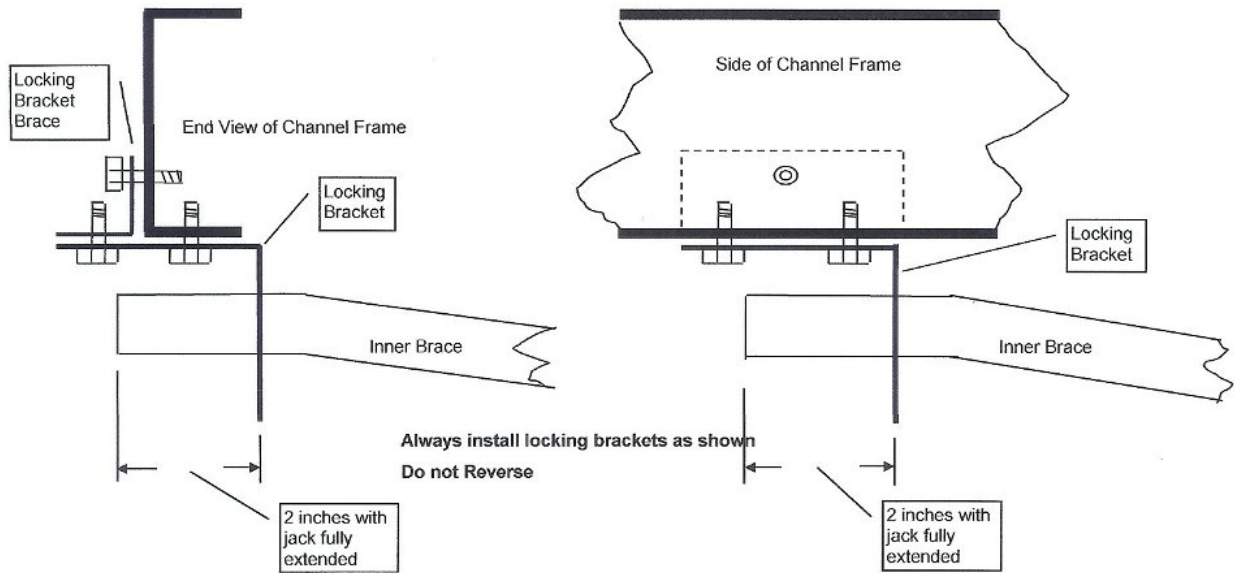


FIGURE 4

Channel Frame or Box Frame less than 2 3/8" - Locking Bracket Installation



Parts List
Standard Universal Unit

1. Foot Plates (2)
2. Swivel Clamps (3)
3. Outer Tubes (3)
4. Inner Tubes (3)
5. Locking Bracket (3)
6. Locking Bracket Brace (3)
7. Locking Clamp (3)
8. Locking Handle (3)
9. Fastener Packet(see fastener list)
10. 17/64 drill bit
11. Instruction List
12. Safety Warning labels (2)
13. **STEADY***fast*[®] Label



FASTENER IDENTIFICATION

A

Locking Bracket



- 13 - 5/16 18 X 1 Self Threading Bolts
- 13 - 5/16 Lock Washers
- 3 - 1/2 -13 Top Lock Nut

B

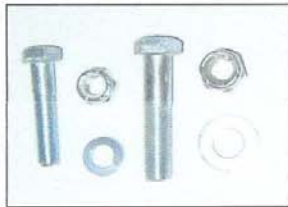
Locking Bracket Brace



- 6 - 5/16-24X1 1/4 Bolts
- 6 - 5/16 24 Nylon Lock Nuts
- Note: Use 3 Self-Threading from bag "A"

C

Swivel Clamp



- 3 - 5/16 24X1 1/4 Bolts
- 3 - 5/16 Lock Washers
- 3 - 5/16 24 Nylon Lock Nuts
- 3 - 3/8 24 1 3/4 Bolts
- 3 - 3/8 SAE Flat Washers 13/16 O.D.
- 3 - 3/8 24 Nylon Lock Nuts

D

Brace Length Ajustment



- 6 - 5/16 18X5/8 Bolts

E

Jack Foot Plate



- 4 - 5/16 24X3/4 Bolts
- 4 - 5/16 24X1 Bolts
- 4 - 5/16 SAE Flat Washers 11/16 O.D.
- 4 - 5/16-24 Top Lock Nut

F

Drop Leg Foot Plate



- 2 - 1/4 28x1 1/8 U Bolts
- 4 - 1/4 28 Top Lock Nuts

STEADY*fast*tm Label Installation

Install the label around one of the large tubes or in your preferred location where it will have good visibility. Many customers have placed it right above one of jacks on the side or front of the trailer. The label should wrap completely around the tube and stick back on itself for the maximum life and durability. See photo below:

