

# Peg-Harness installation instructions

I know it's not the easiest thing to do, but PLEASE READ THESE INSTRUCTIONS COMPLETELY so you will understand what you are trying to accomplish before you start drilling holes in wrong places. If there is ANYTHING you don't understand after reading these instructions and looking at the pictures either GET SOME HELP or call me and I'll talk you through it. Don't let your pride screw up the job then call and blame it on me. I want us BOTH to be happy with the way the Peg-Harness works for you---☺

Sincerely, Kent Stubbs

Phone toll free: 1-888-227-4276

After hours: 1-530-200-0319 (If you are having trouble and are already frustrated, take a deep breath before you call me---☺)

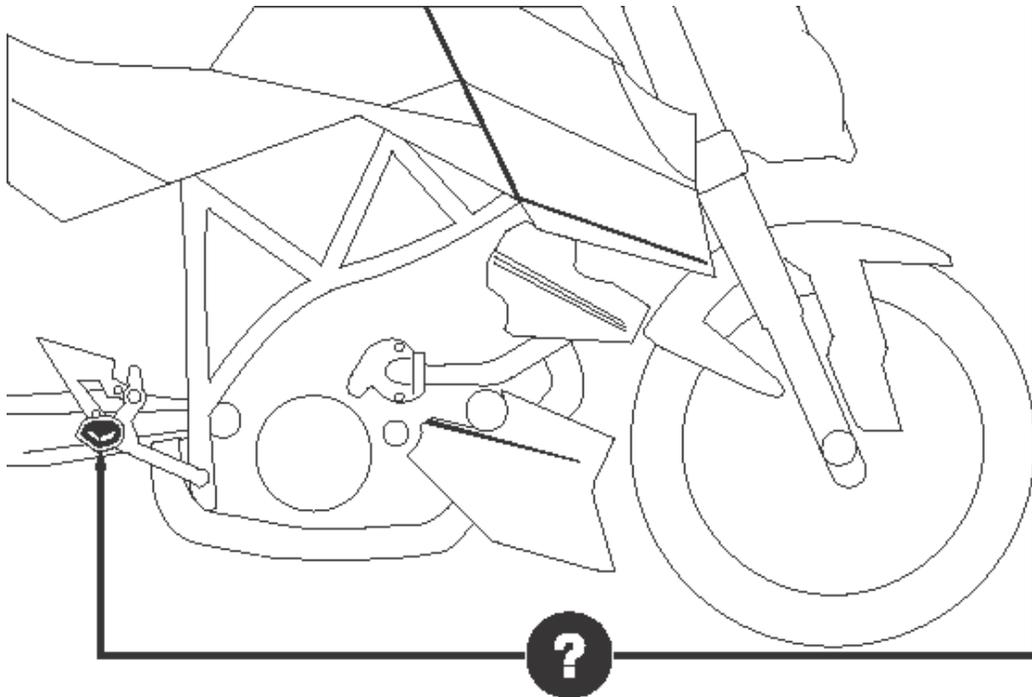
1. Keep in mind that the object in using the foot pegs as a tie down point is to make the weight of the bike less of an issue. When the weight of the bike is taken out of the equation, all the Bar-Harness has to do is keep the bike upright.

2. **NEVER** USE THE **PEG-HARNESS** AS THE ONLY TIE DOWN.

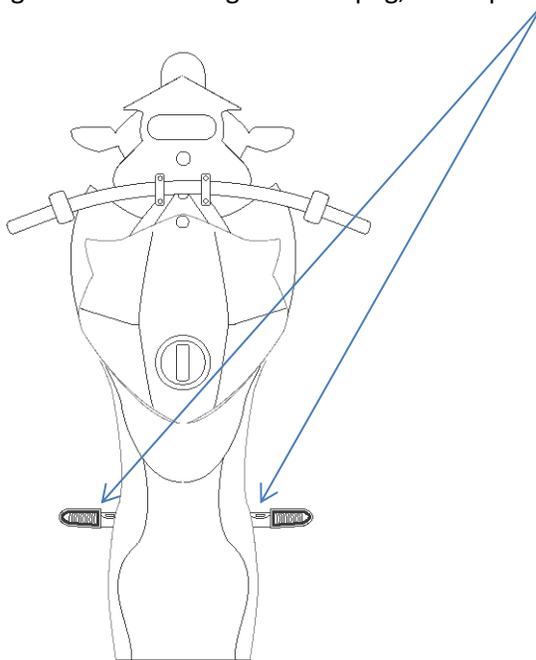
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## Installing the Bed-Bolt anchors.

GET STARTED: Measure the distance from the front of the front tire to the foot pegs by parking the bike against a wall with the front wheel straight ahead and touching the wall and measuring from the wall at about foot peg height to the center of one of the foot pegs.

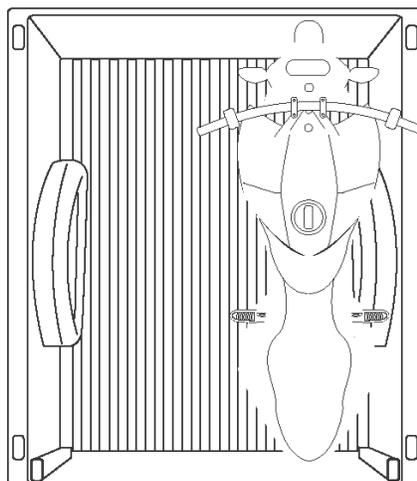


Then measure the width of your foot pegs at the inside edge of each peg, at the pivot point where they fold up.

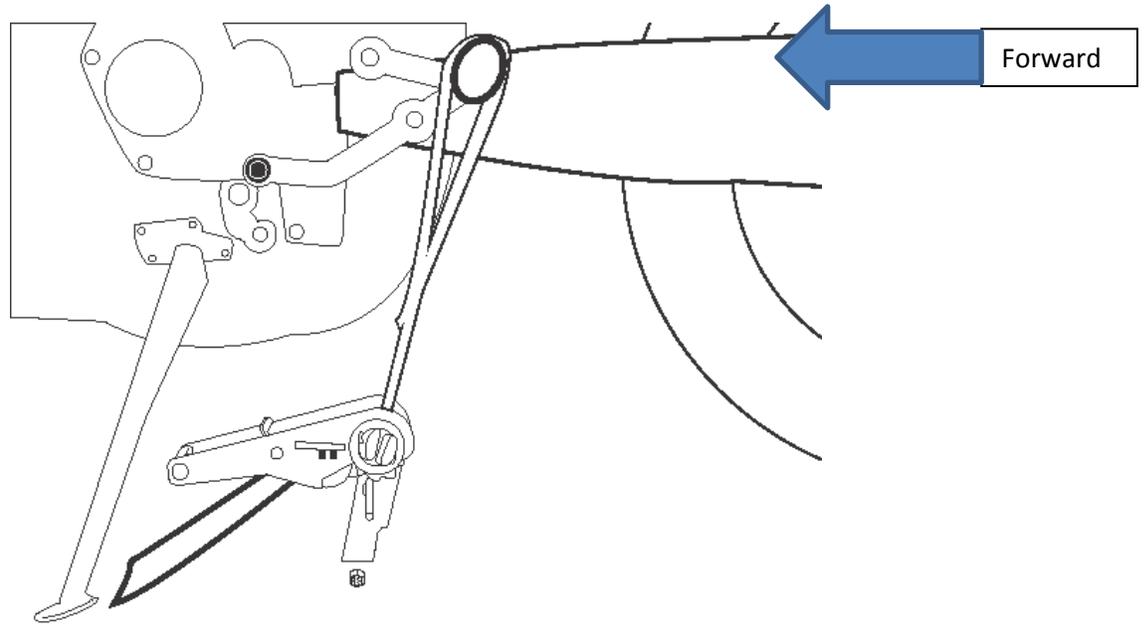


Decide where, in the hauling vehicle you are going to place the motorcycle and how many bikes you are going to haul at one time.

If there is any doubt about how they will fit or how many bikes will fit, you should actually load the bikes to make sure. Tie them in (or have someone hold them) in the position they will be in when they are tied down, taking into account that they will be pulled down and forward slightly. Make sure your foot pegs will clear your wheel wells.

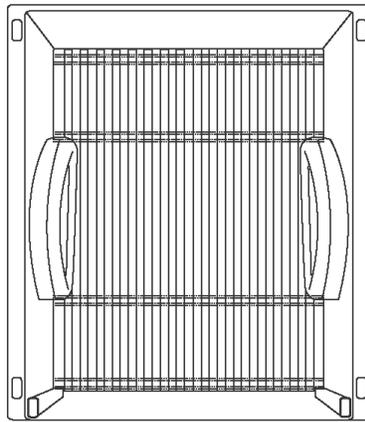


Using either the “wall to peg” measurement or the loaded bike(s) find the point in the floor of the pickup directly below each foot peg and up to 4 inches forward of the foot pegs. Then make a mark under, and as mentioned, up to 4 inches ahead of each foot peg.



This will cause the bike to be pulled forward slightly into the chock or truck bed as it is tightened down and keep the bike from moving forward or backward when the hauling vehicle accelerates or slows. It will also give you a chance to avoid any obstructions under the bed of the truck by moving the holes before you drill them. Remember, you can't un-drill a hole!

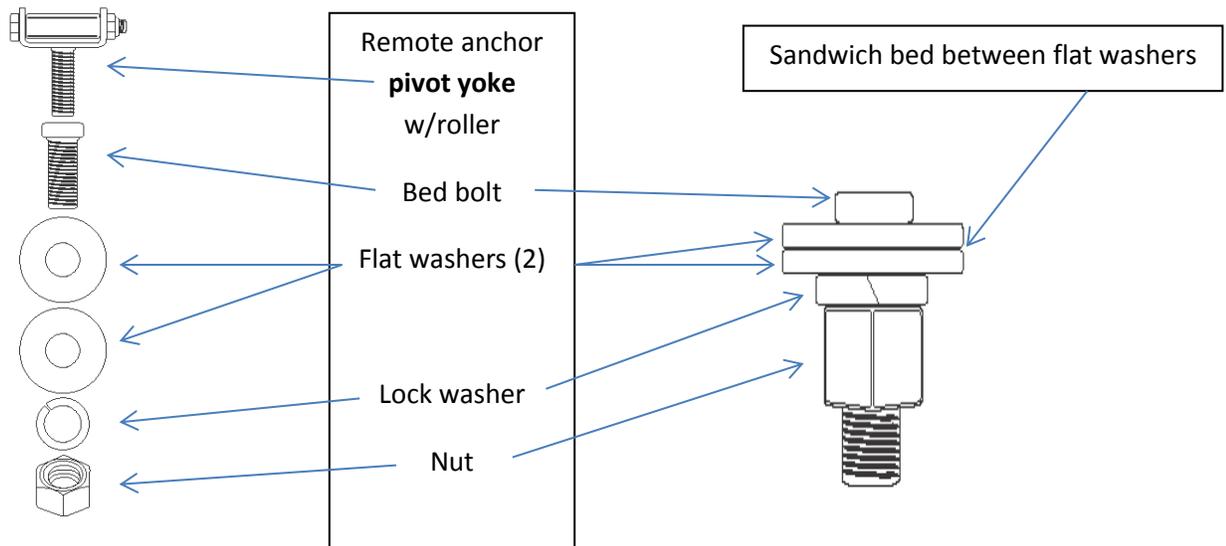
**IMPORTANT!!!** From under the truck, determine by measuring, where the holes for the Bed-Bolt anchors will be. If the holes will interfere with a cross member, a raised welded seam or anything else under the truck, adjust the hole position to avoid the obstruction.



The width between foot peg anchors can be adjusted slightly inward of vertical but avoid outward adjustment to keep foot peg rubbers from sliding outward or off. Try to position the holes in the center of a low rib in the truck floor to give an unobstructed floor when the Peg-Harness is removed. In any case, the hole must be centered on either a high or low rib.

Typically, the Bed Bolt anchors will be above the truck axle which makes it easy to access the Bed Bolt from below. Make double sure there are no other obstructions under the bed such as shock brackets, rear axle vent hoses or brackets or brake lines BEFORE YOU DRILL!!!

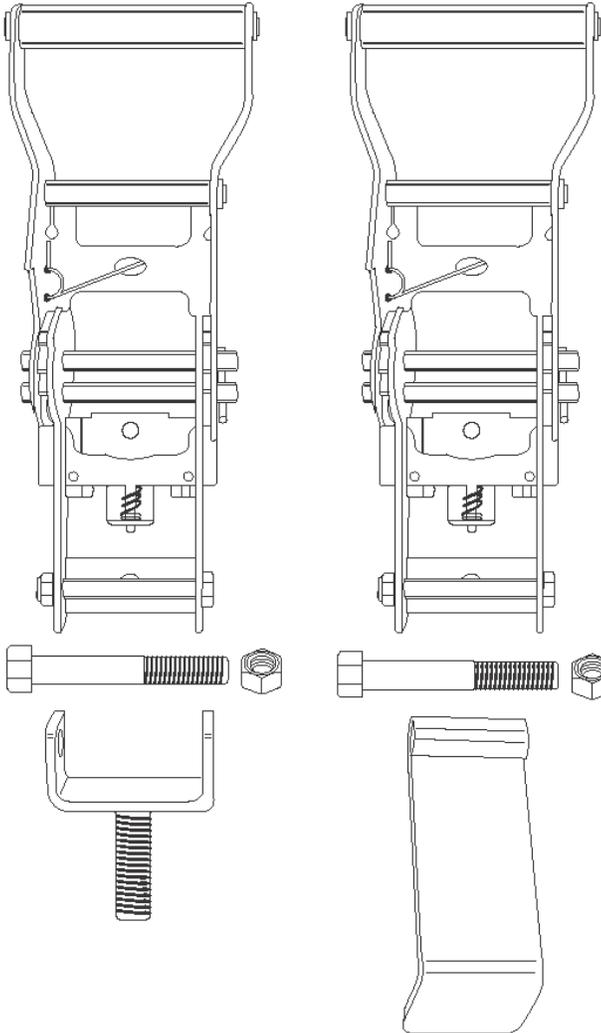
Drill a 3/4 inch hole in the bed of the truck at each of the two marks and install the two Bed Bolts with one flat washer on the top of the bed then a flat washer, lock washer and nut, in that order, from under the bed and tighten securely. If you don't have a 3/4 inch drill bit, a "step" drill bit is relatively inexpensive and works very well. If you do use a step drill, drill a little and measure the hole, then drill a little more and measure! Remember, YOU CAN'T UN-DRILL A HOLE!



If you are working alone, screw the "pivot yoke" into the Bed Bolt and slip a long screw driver or other long object through the yoke to keep the Bed Bolt from turning as it is tightened from beneath the bed. The long screwdriver should be wedged against a wheel well to keep it from turning while the nut is being tightened from below the bed. From inside the bed, the yoke can be unscrewed with just a tap to loosen it. Don't worry if the yoke is not straight across the bed of the truck when it is tight. It is never necessary to tighten the yoke, just screw it in snug then back it off slightly to align the yoke with the webbing so the webbing passes neatly and squarely through the yoke.

### Direct anchor ratchet or remote anchor ratchet?

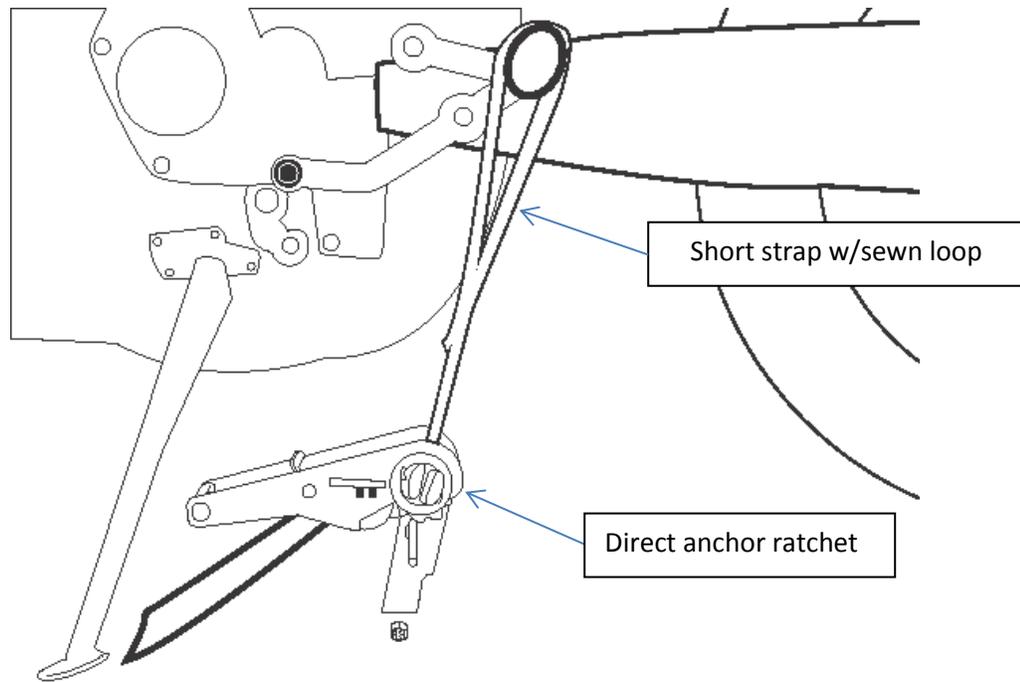
You can stop at this point if you have decided to use the Direct Ratchet configuration. All you have to do now is pull the 5/16<sup>th</sup> bolts from the Direct Anchor ratchet and from the Yokes and bolt the ratchet directly to the yoke. *You MUST have at least 10 inches of bed to peg clearance to use the "Direct anchor" configuration!*



Direct anchor configuration

Remote anchor configuration

## Direct ratchet anchor configuration

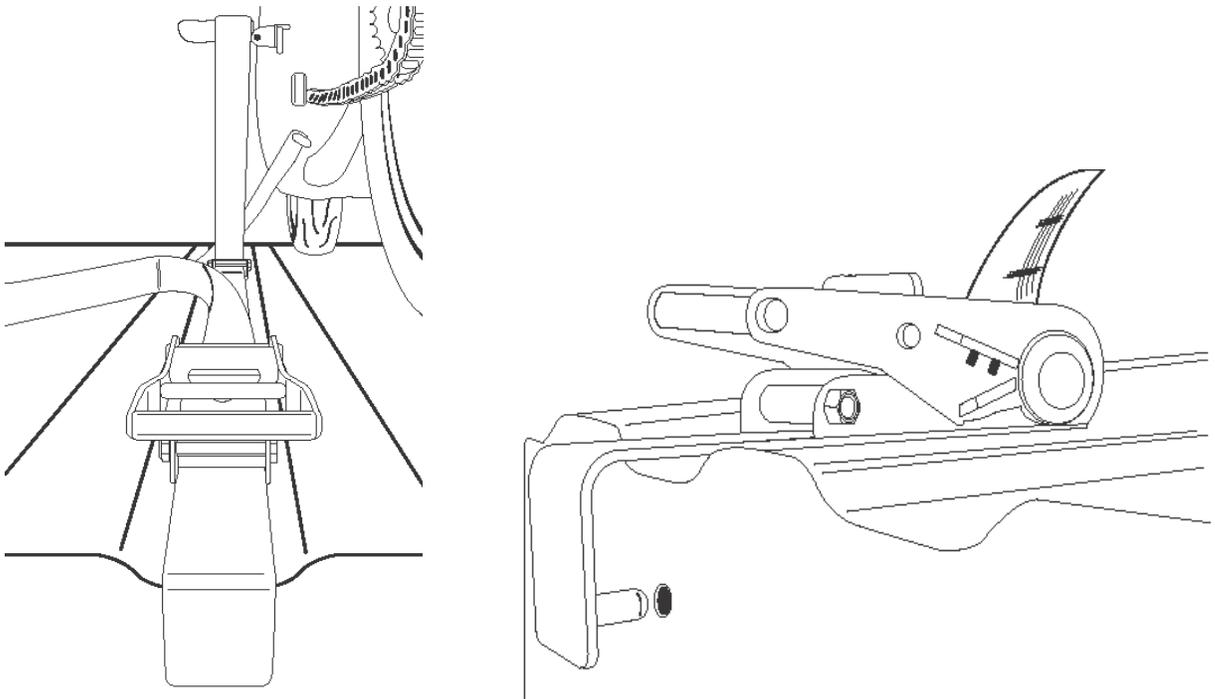


You may be tempted to stop here and not use the remote anchors. Keep in mind that with the remote anchor ratchets you can adjust how the bike is tied down while standing at the back of the hauler, you don't have to crawl from side to side of the bike to tighten it down evenly. Also, if you have limited access, such as in an enclosed trailer, you only have to access the foot pegs once (to install the straps), then all the adjustments are made from the rear of the trailer.

## Mounting the Remote Anchor ratchets

Remove the tailgate. They typically come off without tools. There is usually a clip that releases the support cables and a slot in one of the hinges that when aligned, allows the tailgate to be lifted away from the bed. *It is best to have help with this as the tailgate is not only heavy, but awkward.*

Next, follow the ribs in the bed of the truck where your Bed-Bolts are mounted, to the rear of the truck and lay the two remote anchor/ratchet assemblies FLAT on the corresponding rib with the anchor pin facing the vertical sheet metal at the rear of the truck bed. With the "L" shaped remote anchor flat against the bed and the locking pin against the back of the truck, tap the back of the anchor pin with a hammer to make a mark in the back of the bed. Repeat for the other anchor.



**IMPORTANT!!!** From beneath the truck, make sure there are no wires or any other obstructions before you drill. There will typically be brake/tail light wires where you are about to drill so pull them gently out of the way and tie them back temporarily with a piece of string or scrap of wire. If it becomes apparent that they will come in contact with the anchor pin each time it is installed, you will have to permanently tie the wires back with zip ties or a scrap of wire to prevent the anchor pin from rubbing a hole in the wire insulation and shorting out your tail/brake lights.

When you are sure there are no wires or other obstructions under the rear of the truck bed, drill a 5/16 hole in the back of the bed at each of the two marks.

*Wobble the drill around **slightly** to make the hole **slightly** larger than 5/16 so the pin will slide in easily but somewhat snugly.*

Each remote anchor can now be installed by simply sliding the pin into the hole. *Later, the pull of the straps will keep the ratchet locked firmly into the bed.*

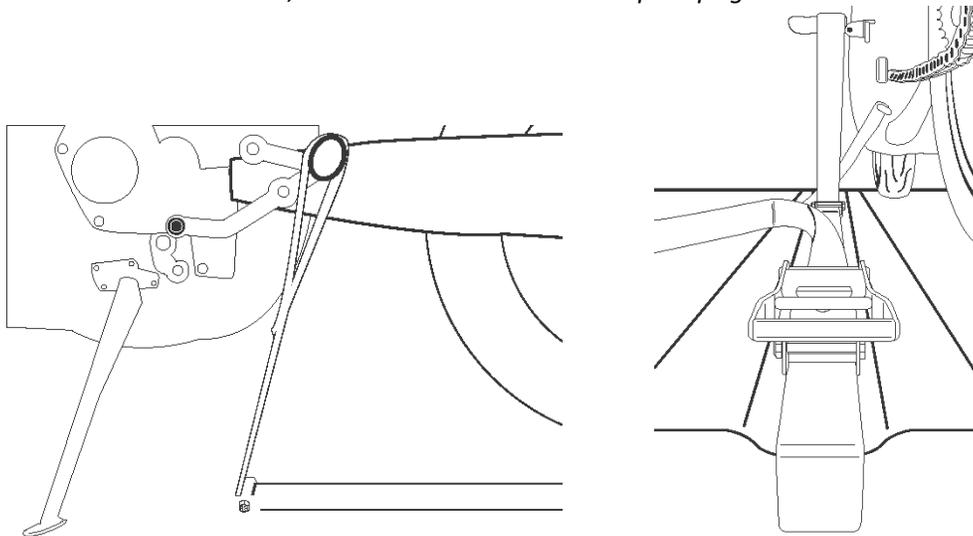
## Loading the bike and tying it down.

Load the bike against the chock or front of the truck bed and let it rest on the side stand or have someone steady it for you.

### Remote anchor configuration.

Slip the sewn loop end of the long straps (included in the kit) over your foot pegs and position them inward and near the pivot pin of your pegs and away from the outer tips. This will be the strongest place to attach the straps. (*Stay away from sharp edges that may damage the straps*). Then feed the straps down through the rollers on the “remote anchor yokes” and to the rear of the truck bed and into the “remote anchor ratchets”. When the locking pin on the remote anchors is inserted into the small hole in the rear of the bed, feeding the strap through the ratchet and tightening it will lock the anchor into the bed of the truck and the bike will be pulled downward. Snug the two straps down simultaneously and evenly so the bike is pulled down straight and upright. **WARNING!** Be sure the strap is wrapped at least two turns around the ratchet drum so that it will not slip. Also, you will notice that the bike only has to be pulled down an inch or two, usually no more than if you were standing on the pegs.

*The ratchets we use have a pull test strength of over 5,000 pounds and up to 1,000 pounds of pull **each** can be achieved with your bare hands. YOU WILL DAMAGE your bike if you over-tighten the ratchets. Remember, all you want to do is HOLD the bike down, then let the Bar-Harness keep it upright.*

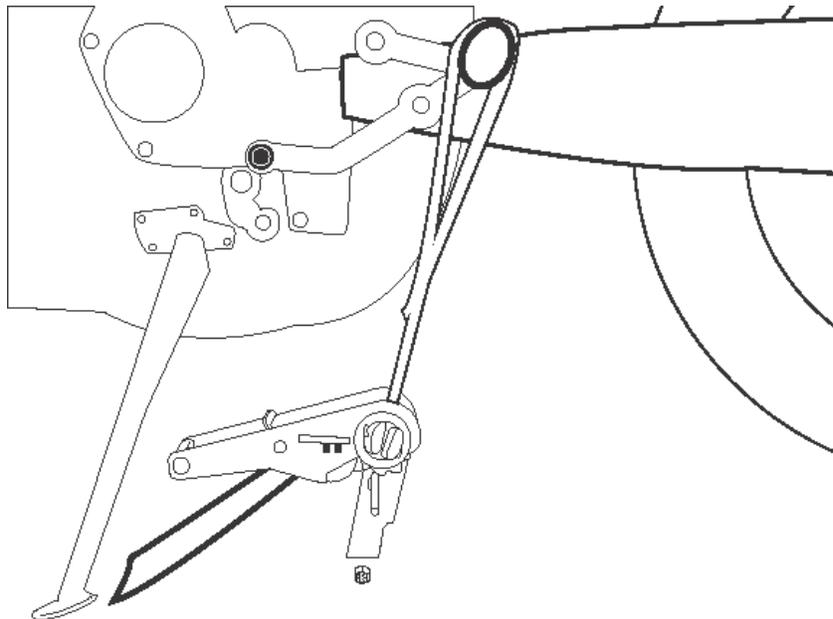


## Direct anchor configuration.

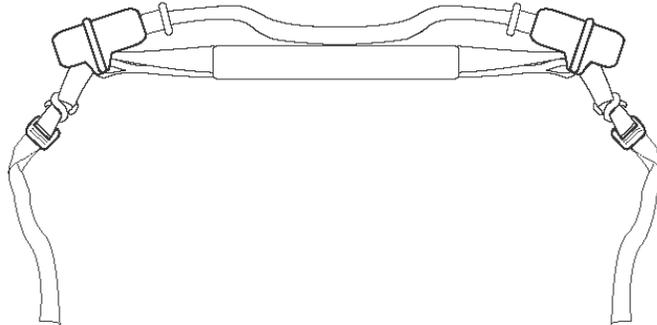
Screw the two "Direct Ratchet" assemblies into the Bed-Bolts. Load the bike against the chock or front of the truck bed and let it rest on the side stand or have someone steady it for you. Slip the sewn loop of the short straps (included in the kit) over your foot pegs and position them inward and near the pivot pin of your pegs and away from the outer tips. This will be the strongest place to attach the straps.

*(Stay away from sharp edges that may damage the straps).*

Then feed the other end of the straps down through the barrel of the ratchet. Snug the two straps down simultaneously and evenly so the bike is pulled down straight and upright. **WARNING!** *Be sure the strap is wrapped at least two turns around the ratchet drum so that it will not slip.* Also, you will notice that the bike only has to be pulled down an inch or two, usually no more than if you were standing on the pegs. *Again, the ratchets we use have a pull test strength of over 5,000 pounds and up to 1,000 pounds of pull each can be achieved with your bare hands. YOU WILL DAMAGE your bike if you over-tighten the ratchets. Remember, all you want to do is HOLD the bike down, then let the Bar-Harness keep it upright.*

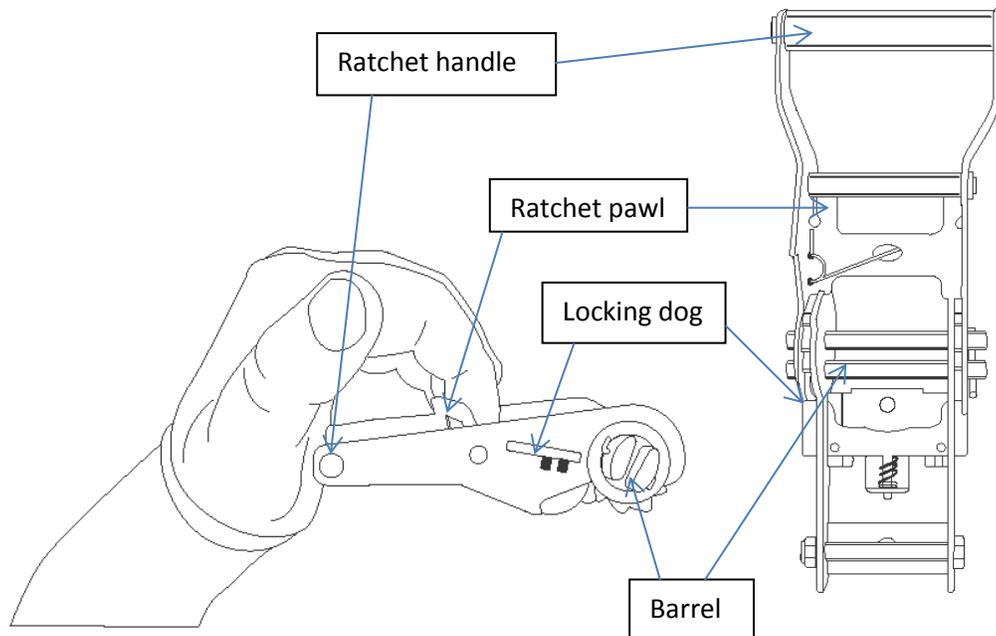


Next, install the Bar-Harness on the handlebars as described in the instructions included with the Bar-Harness. There's no need to compress the forks more than an inch or two, no more than you would while sitting on the bike and LESS than you would when not using the Peg-Harness.



### **Releasing/removing the bike.**

**The ratchets** we use are typical in the Powersports industry and are designed to be secure and not accidentally release. If you are not familiar with how they work, take a few minutes to play with the ratchet before you have to actually use it. You will notice that when you squeeze the release lever toward the handle, (use three fingers and pull toward your palm) it disengages the ratchets pawl and you can play out the webbing one click at a time by holding back the locking dogs with your thumb and alternately releasing the dogs and pawl one click at a time. This is how it's done if you have way too much time and don't mind smashed/pinched fingers. Try this... if you pull the ratchet pawl (as shown below) and rotate the release handle all the way back until the ratchet lays open flat, the locking dogs automatically ride up on a cam and are locked open and the barrel will instantly release tension on all of the wound up webbing. The main thing to remember with this method is, which way is the bike going to fall?! No problem. Always remember to release the right side (passenger side of truck) first so the bike falls to rest on its side stand.



## Applications/Variations

### Bed liners

If you have a bed liner, depending on the type of liner and how concerned you are with the holes showing, there are several ways to go. If it is a thin, hard plastic liner that is hard to remove, you can just drill right through it and mount the Bed Bolts right through the liner. The liner will be crushed under the Bed Bolts when they're tightened but that should be the only drawback to that method. You should use a liquid thread locker or a Nylon locking nut in cases like this to insure the nut staying tight. If it is a thick mat that is easily removed you can do the same thing, or remove it temporarily while hauling your bikes. Another method is to mount the Bed Bolts in the bare bed of the truck then re-install the bed liner. From under the truck, drill a small hole up through the Bed Bolt and through the bed liner to locate the center, then drill a 3/4 inch hole from above down through the liner, being careful not to drill into the Bed Bolt and damage the threads. In all cases, the Bed Bolt may be sealed with the small black plastic plugs included in the kit.

## **Trailers/toy haulers, thick wooden floors**

When installing in a trailer or toy hauler, there are too many variables to list but I will mention two.

1. Floor thickness is sometimes a limiting factor. If your floor is wood or metal-over-wood, make sure it doesn't exceed  $\frac{3}{4}$  inches as the Bed Bolt will not be long enough. If you do have a thicker bed let us know. We have a complete machine shop and can make custom length Bed Bolts. Also, if there is any wood involved, make sure to coat any holes you drill with something to prevent rot or water damage. A heavy coat of paint works well or better yet, a shot of rubberized under body coating as found in auto supply stores. Then, be sure to inspect your floor periodically for signs of wood rot or water damage. A quick poke on the underside of your trailer with a screw driver or a rap with a hammer will reveal signs of a weakening floor and possibly save your bike.

2. Toy haulers typically have plumbing and wiring under the floor, not to mention tanks of various types (water, sewage, propane, etc...). Spend some time crawling around under there to make sure you can safely drill holes where you want them. Remember to "measure twice, drill once. You can't un-drill a hole!"

## **Rail type trailers or "cross bed" type receiver mounted haulers**

There are typically no mounting places for the Peg-Harness on these types of haulers, but it is usually inexpensive to adapt your hauler to accept the Peg-Harness. Welding is almost always necessary but the results are usually quite good and will give you a lot of "peace of mind" when hauling your bike. The easiest way is to weld a piece of channel steel across and under the rail below your foot pegs and mount the Bed Bolts through the channel. The channel should be heavy enough not to bend or twist but your local machine shop/welding shop will know what materials to use once he understands what you are trying to accomplish. Take the Peg-Harness with you and show him a copy of these instructions so he understands what you need.

## **Bikes with floor boards or "highway" pegs (forward mounted pegs)**

Floor boards are not usually a problem. Instead of a strap loop around the foot pegs, we can supply a hook on the end of the strap to attach to the floor board hanger brackets. The same is true with forward mounted "highway pegs". You can still use a strap loop around the pegs but you may prefer a hook attached to the peg brackets.