TORKLIFT INTERNATIONAL

OVER 35 YEARS OF INNOVATION, QUALITY, SAFETY.

IMPORTANT OWNER-OPERATOR INSTALLATION INSTRUCTIONS

A7310/A7311

STABLELOAD
APPLICATION FITS:
ANY TRUCK WITH A BOTTOM
OVERLOAD LEAF SPRING

!!ATTENTION!!

BEFORE ATTEMPTING THIS INSTALLATION OF THE A7311, IT IS HIGHLY RECOMMENDED THAT THE INSTALLER VIEW THIS INSTRUCTIONAL VIDEO ON DRILLING THE BOTTOM LEAF SPRING. IMPROPER DRILLING MAY RESULT IN PERSONAL INJURY OR DAMAGE!

www.Torklift.com/SLinstall

Member of NATCOA WWW.NATCOA.COM

REVISED version 19 BY: TD 1/9/2015

TECH SUPPORT (800) 246-8132

AFTER INSTALL, PLEASE GIVE THIS BOOKLET TO YOUR CUSTOMER

A7310/A7311 PARTS INVENTORY

4 X	SEVEN HOLE BOTTOM PLATE	**4 X**	3/8” FLANGED LOCK NUT
4 X	THREE HOLE TOP WEDGE	**4 X**	7/16” COBALT DRILL BIT **(A7311 only)**
4 X	FOUR HOLE MIDDLE WEDGE	**4 X**	7/16” X 1-3/4” LOW PROFILE HEX BOLT
4 X	FIVE HOLE BOTTOM WEDGE	**4 X**	7/16” USS FLAT WASHER
4 X	HITCH PIN	**4 X**	7/16” LOCK WASHER
4 X	HITCH PIN CLIPS	**4 X**	7/16” HEX NUT
8 X	1/4” X 3/4” HEX BOLT	**4 X**	1/2” X 2-1/2” HEX BOLT
8 X	1/4” NYLOCK NUT	**32 X**	1/2” SHIM WASHERS
4 X	3/8” X 1-1/4” HEX BOLT	**4 X**	1/2” NYLOCK NUT

Note: Drilling the holes in the leaf springs for the A7311 can be difficult, it is recommended to bring the vehicle and parts to a dealer to complete the install.

!IMPORTANT!

Read this thoroughly prior to attempting Installation.

On a level surface with the front wheels chocked, place a floor jack under the receiver hitch and raise until the rear suspension is unloaded. Place jack stands under the frame for safety purposes on both sides. If additional clearance is needed, place a pry bar between the overload spring and the spring pack and separate slightly.

If your StableLoads are used in conjunction with air bags, adjustment of the air spring pressure (either up or down) is recommended to obtain the best handling and ride quality. Air pressure will vary depending on your particular application. When no load is in the vehicle, the best ride quality can be obtained disengaging the StableLoad.

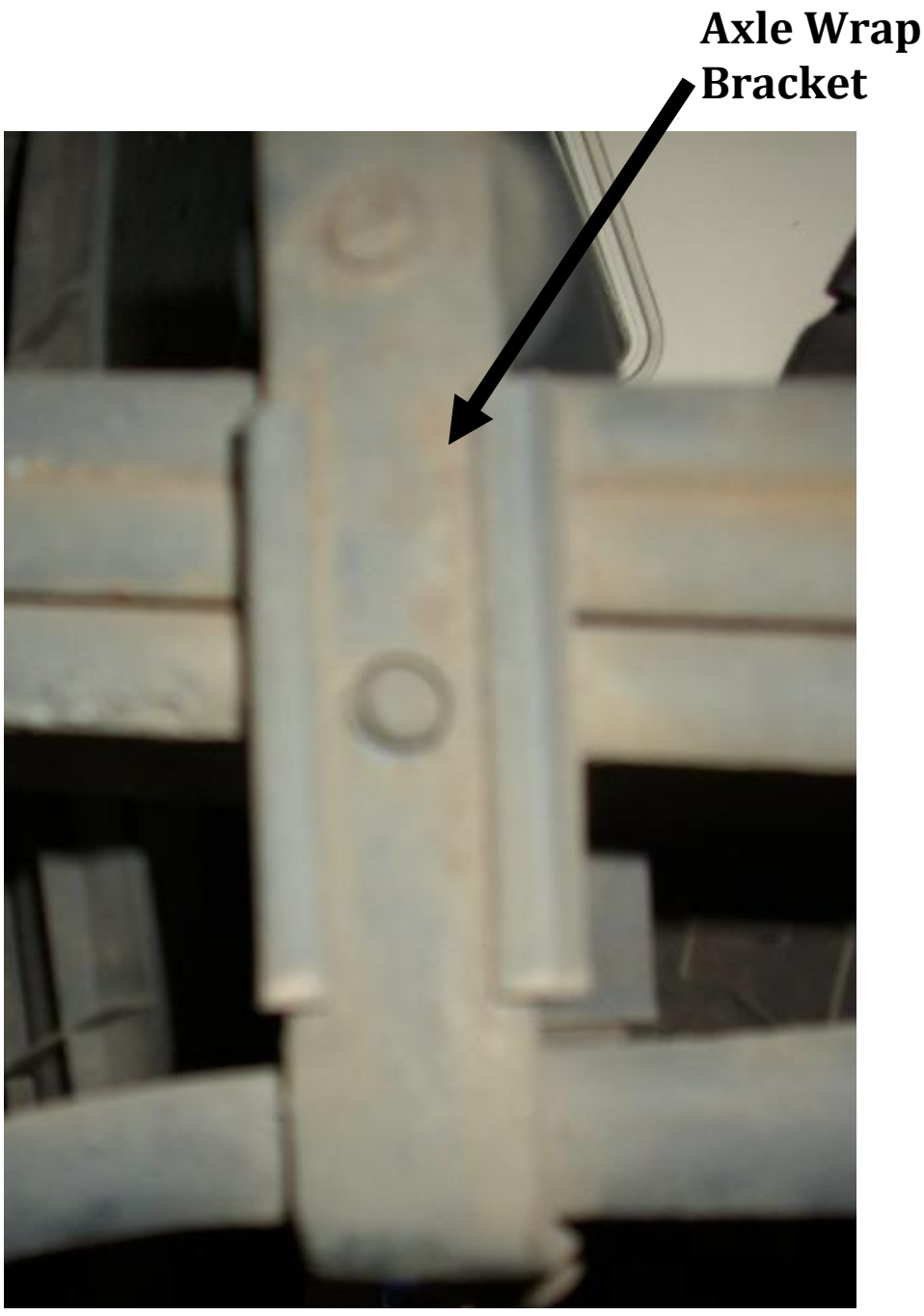
In order for the StableLoad to engage and disengage with minimal effort, a minimum gap of 1/8" is required between the lower overload and the spring pack. In some cases, you may have less that 1/8” gap between the overload and main spring pack. In this case, you will need to lift weight from the rear axle using a jack or air bags (if applicable). The widest overload leaf spring this StableLoad will work with is 3-3/8”. In the event your overload is greater than 3-3/8” please contact Tech Support by Phone: (800) 246-8132 or Email: support@torklift.com for more information.

*The StableLoad is designed with a tapered wedge mounted to a hinge mechanism that allows the StableLoad to be hinged in the in or out of position by use of a common 3/8” ratchet extension and ratchet. Engaging and disengaging the StableLoad should **ALWAYS** be done when the truck has no payload.*

*Note: **Do NOT** use in conjunction with Snow Chains or Snow Cable Chains if the StableLoads are mounted with the Pivot Point on the outside of the Spring Pack.*

The lower overload leaf can be identified as being on the bottom of the spring pack. The lower overload is generally shorter and thicker than the rest of the leaf springs and in most cases, will be separated by a gap. (as seen in picture above) Many factory overload springs come predrilled with 1/2” holes; therefore, drilling holes in the overload springs (using part number A7311) in the same factory locations found on vehicles with pre drilled holes will have no affect on your springs integrity or operation. The drilled springs (when drilled in accordance with the TorkLift International drilling specifications) and the integrity of the springs once drilled are covered under the lifetime TorkLift International warranty.

NOTE: If your Nissan Titan has an Axle wrap bracket located at the rear of the lower leaf spring A7310/A7311 Stable Loads will only be installed on the front of the driver and passenger leaf springs.



INSTALLATION
If using Part Number A7311
(Skip to page 6 if using A7310)

Items needed for Drilling Holes in Lower Overload Leaf Springs:

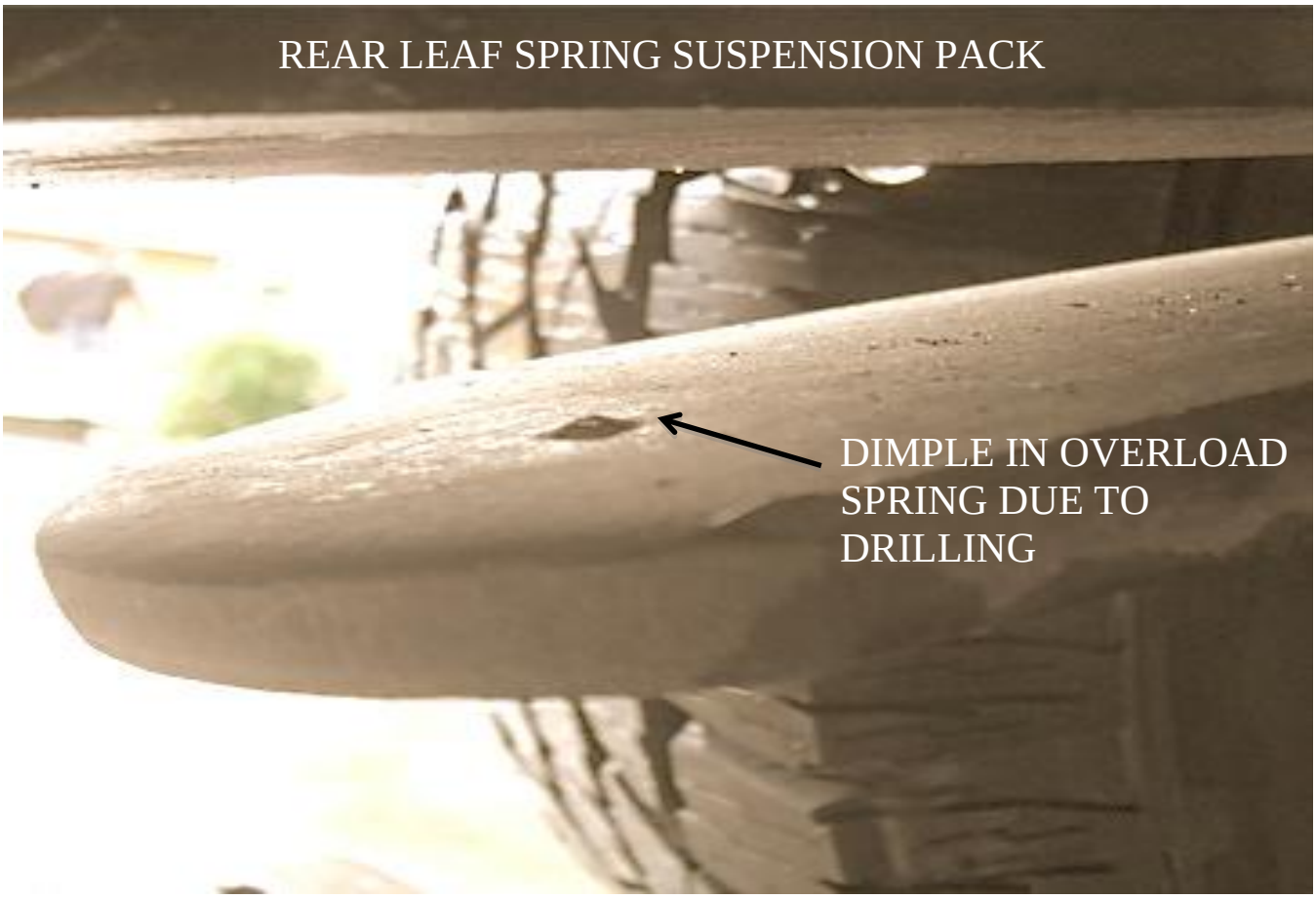
• Low speed electric cordless hand drill (200 - 300 RPM)

• **7/16" Cobalt Drill Bit** (SUPPLIED)

• Cutting Oil or Motor Oil

Procedures for Drilling Holes in Leaf Springs:

- Mark hole in the center of the leaf spring 1" back from the End.
- Use only the supplied **7/16" cobalt drill bits** and **DO NOT** predrill the spring with a smaller diameter pilot drill bit for a pilot hole.
- Do not drill all the way through the Leaf Spring, once the top of the Leaf Spring starts to dimple (photo on next page) Move on to next hole. (**WARNING**) If you try to drill all the way though at this point, it may damage the bit.



- Oil the **7/16" Cobalt Drill Bit.**
- Apply high force when drilling, leaf spring will deflect about 1/4" when drilling. (Maximum pressure at low speed is critical to avoid drill bit damage)
- Re-apply oil every 5 to 10 seconds.
- When you go back to break through the remaining material on the holes lower you applied force. Use caution as the drill bit will want to grab the edges and pull the drill upwards.

StableLoad Installation

1. Measure the thickness of the lower overload spring 3” back from the end of each overload. Write your measurement down here _____. You will also want to measure the gap between the overload spring and the spring pack assembly at this location. Write your measurements down here. Driver (Fr)_____, Driver (Rr)_____, Pass (Fr)_____, Pass (Rr)_____.

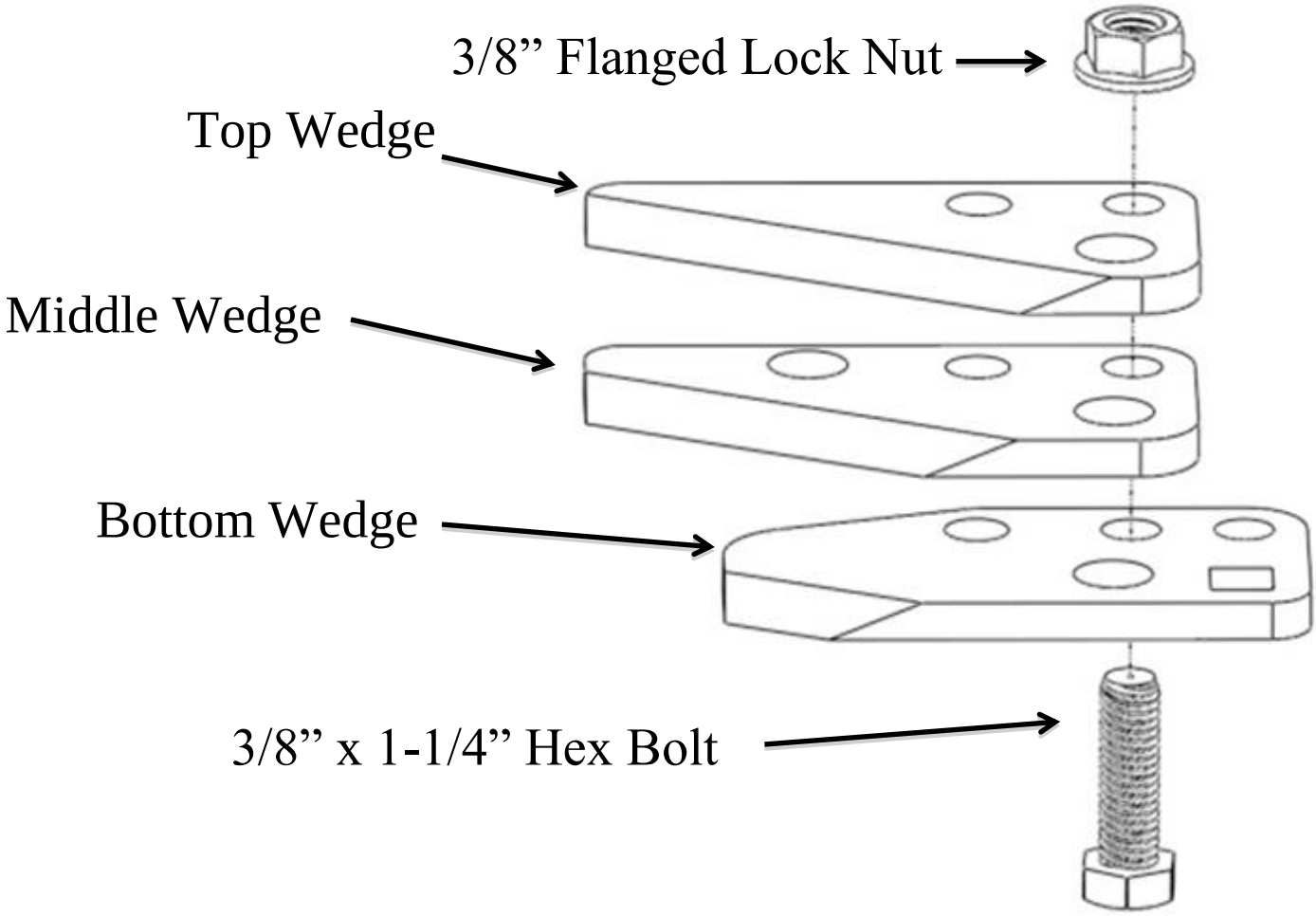
StableLoad Wedge Pack Assembly

Be aware that the StableLoad is designed to scissor in between the overload and spring pack. Having all three wedges assembled will give you the best performance. Please note that you can use grease on the top and bottom of the wedge pack assembly for easier engagement when fully assembled.

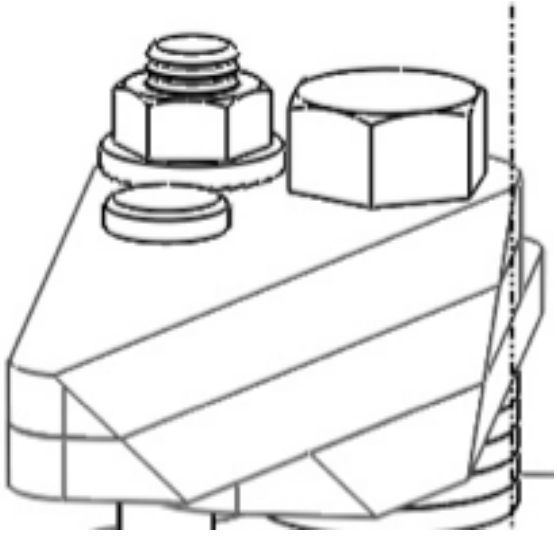
**Assemble with the tapered edges up.*

Please note. If your gap is 3/4” or more, assemble the wedge pack according to the directions. If your gap is less than 1/2", you may want to remove the top wedge for easier engagement. Remove the middle wedge accordingly if additional room is needed.

To assemble the wedge pack, place the wedges into three groups. Each wedge is 1/4” thick and assembles from largest to smallest. The bottom wedge has four round holes and one square hole. The middle wedge will have four round holes and the top wedge is the smallest wedge with three round holes. Be sure that the tapered edges are all facing up as seen in diagram on next page.



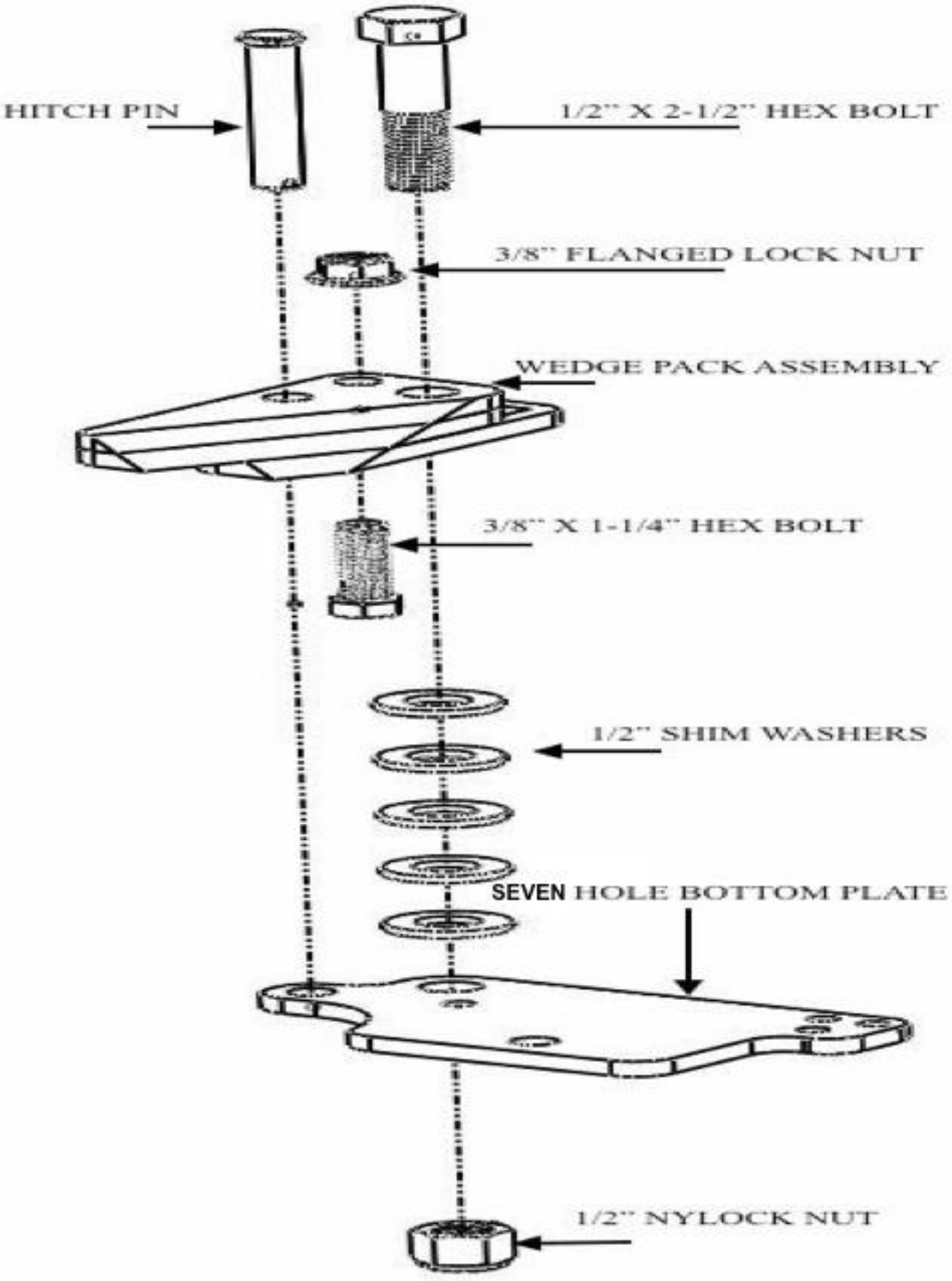
Next, install one 3/8” x 1-1/4” hex bolt through the bottom wedge and up through the middle and top wedge (if applicable). Install one 3/8” flanged lock nut onto the previously installed fastener and tighten to 20 ft-lbs(27 Nm). Repeat on remaining wedge packs. Be sure the wedge pack tapered edges are evenly sloped. (Photo below)



2. Assemble the StableLoads to determine orientation when on the vehicle. There are two positions that the StableLoad can be installed. Inside the spring pack closest to the frame or on the outside of the spring pack closest to the tire. **CAUTION! 1" minimum clearance is required between the pivot hinge and the vehicle tire for this mounting method.** Assemble the StableLoad as in the **figure 2.1** on the next page. The number of 1/2" Shim Washers that you use will depend on the thickness of your overload spring. Refer to Step 1 on page 6. Using the 1/2" Shim Washers as shims, stack enough 1/2" Shim Washers to match the overload springs thickness. When completed, you should have two "Lefts" and two "Rights" which should look physically opposite.

Obstruction WARNING: In some cases you may not have sufficient clearance for the StableLoad to mount with the pivot hinge point on the inside of the spring pack due to potential obstructions (including mud flaps, frame of the vehicle, vehicles gas tank, exhaust system, etc.) Your StableLoad must at all times maintain clearance by **NOT** coming into contact with other parts of the vehicle both when the StableLoad is engaged, disengaged positions and while the vehicle is loaded as well as unloaded. In the event of interference with an obstruction you can reverse the StableLoad pivot hinge to the outside of the spring pack so that the StableLoad pivot hinge is between the tire and the spring pack. Do not use snow chains or snow tire cables with the pivot point on the outside of the spring pack as it may cause damage if it comes into contact with the StableLoad.

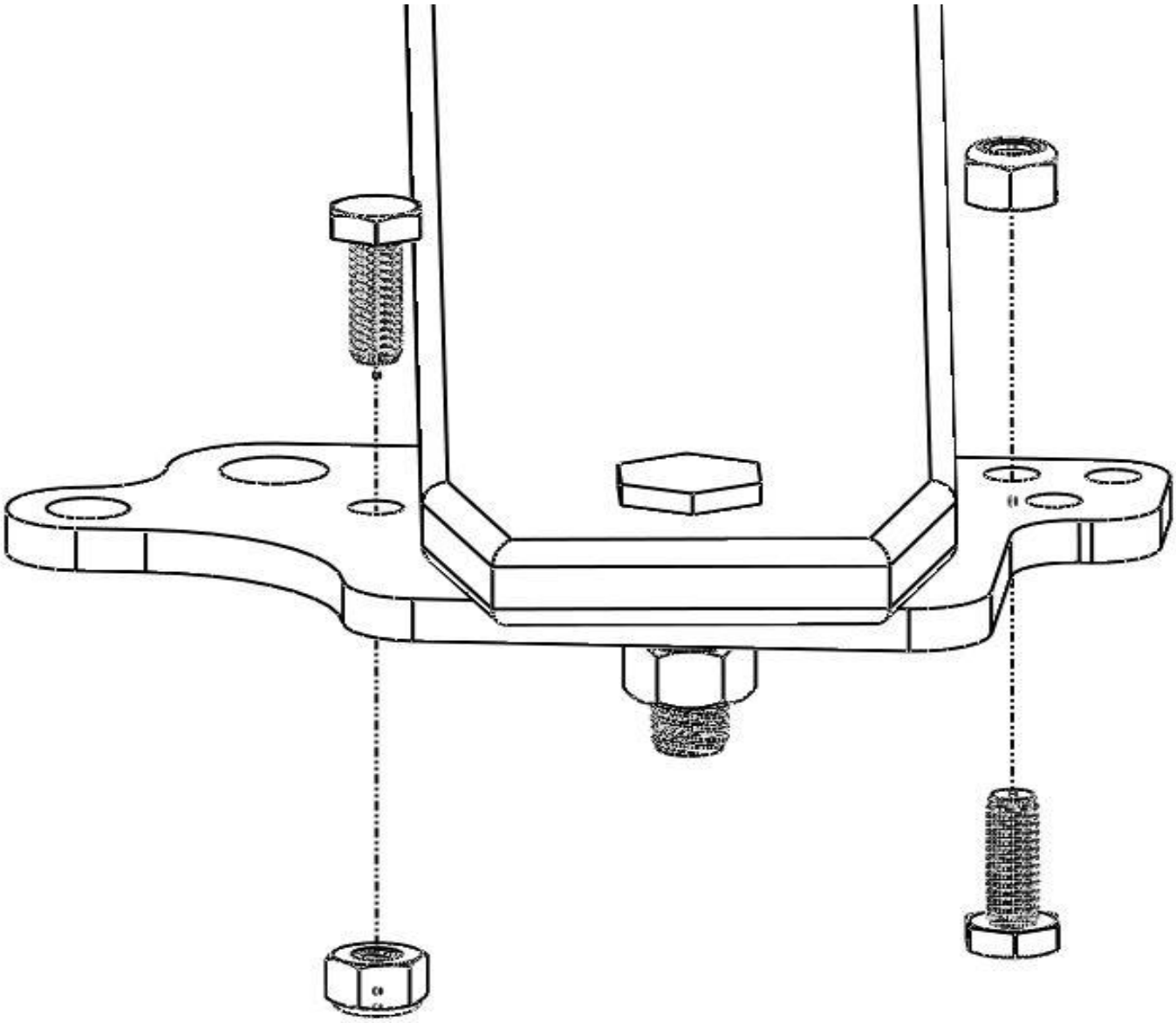
Figure 2.1


HITCH PIN
1/2" X 2-1/2" HEX BOLT
3/8" FLANGED LOCK NUT
WEDGE PACK ASSEMBLY
3/8" X 1-1/4" HEX BOLT
1/2" SHIM WASHERS
SEVEN HOLE BOTTOM PLATE
1/2" NYLOCK NUT

3. Next, you will want to determine the mounting orientation of your StableLoad. The pictures below show both the inner and the outer StableLoad mounting options.

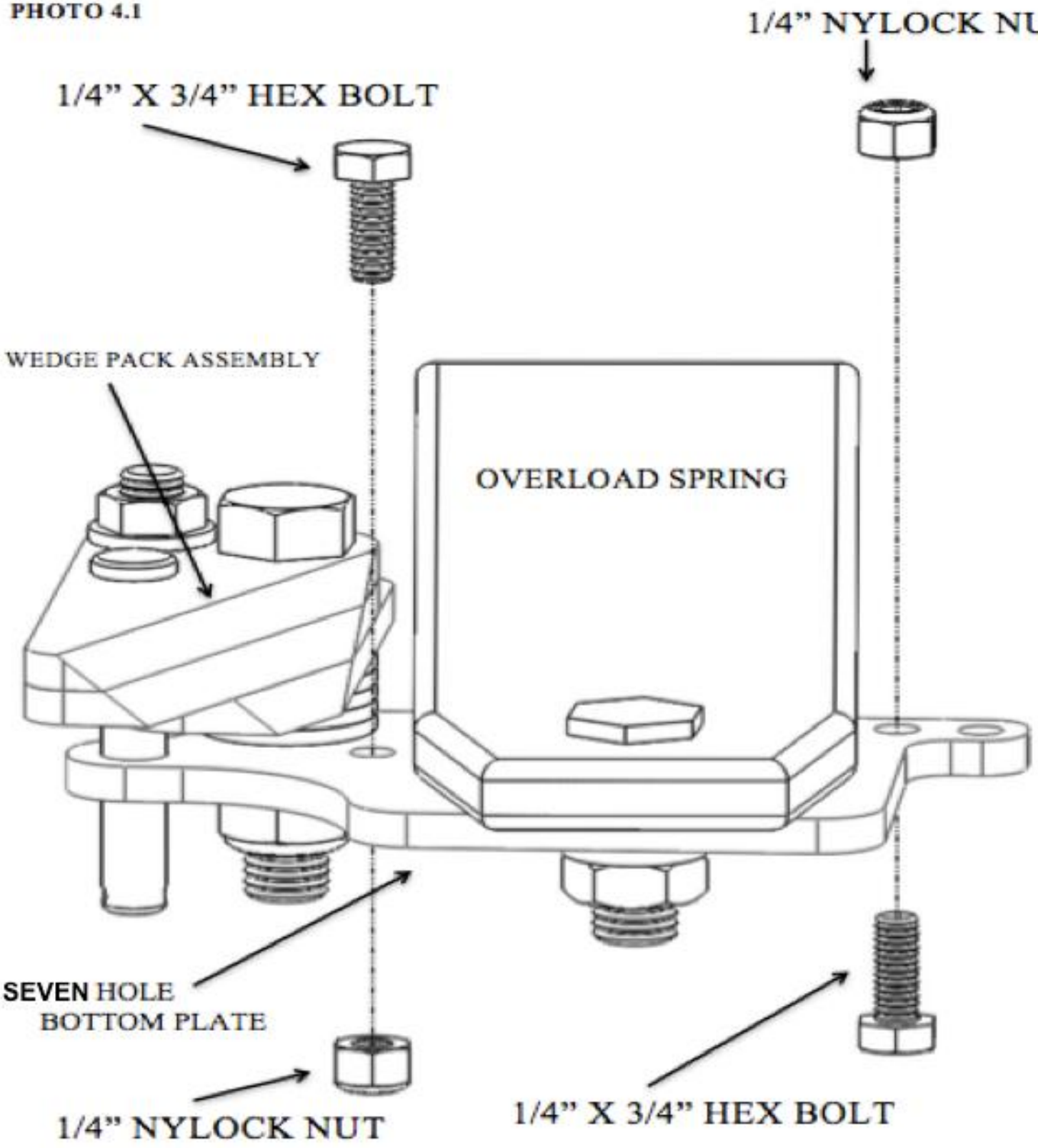
Determine if you have enough clearance from Brake Lines, the frame exhaust, tires, etc. Place the Seven hole bottom plate bracket on the bottom of the overload spring.

4. Next you will need to determine the configuration of your Seven Hole Bottom Plate. If your overload is 2-5/8” or less, you will need to use both 1/4” X 3/4” Hex Bolts and both 1/4” Nylock Nuts as seen in **Photo 4.1** on the next page.



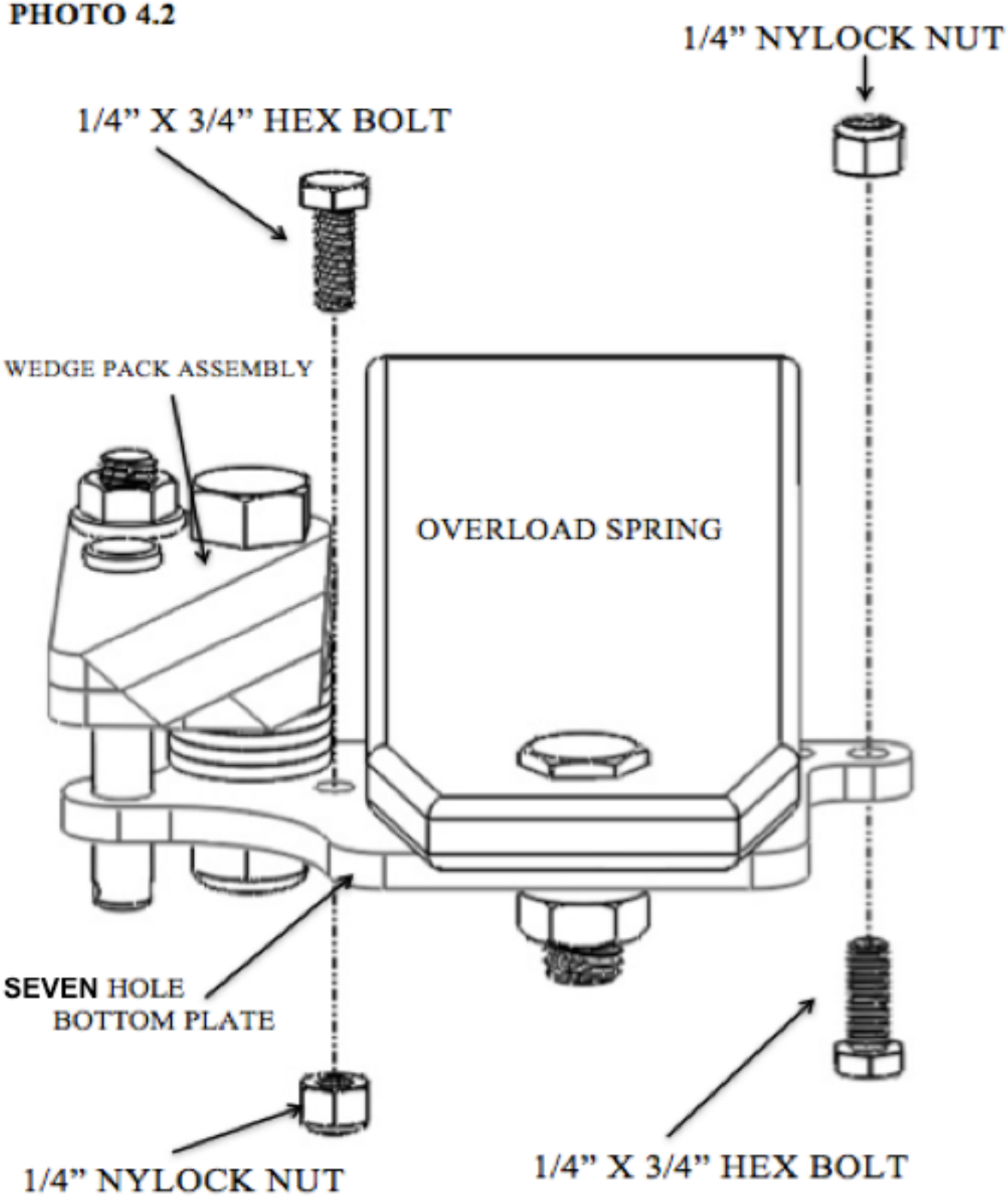
NOTE: While it is not necessary for the Seven Hole Bottom Plate to be exactly perpendicular to the leaf spring, it is imperative that plate rotation is prevented by using one of the installation options pictured on the following pages.

PHOTO 4.1


1/4" NYLOCK NUT
1/4" X 3/4" HEX BOLT
WEDGE PACK ASSEMBLY
OVERLOAD SPRING
SEVEN HOLE
BOTTOM PLATE
1/4" NYLOCK NUT
1/4" X 3/4" HEX BOLT

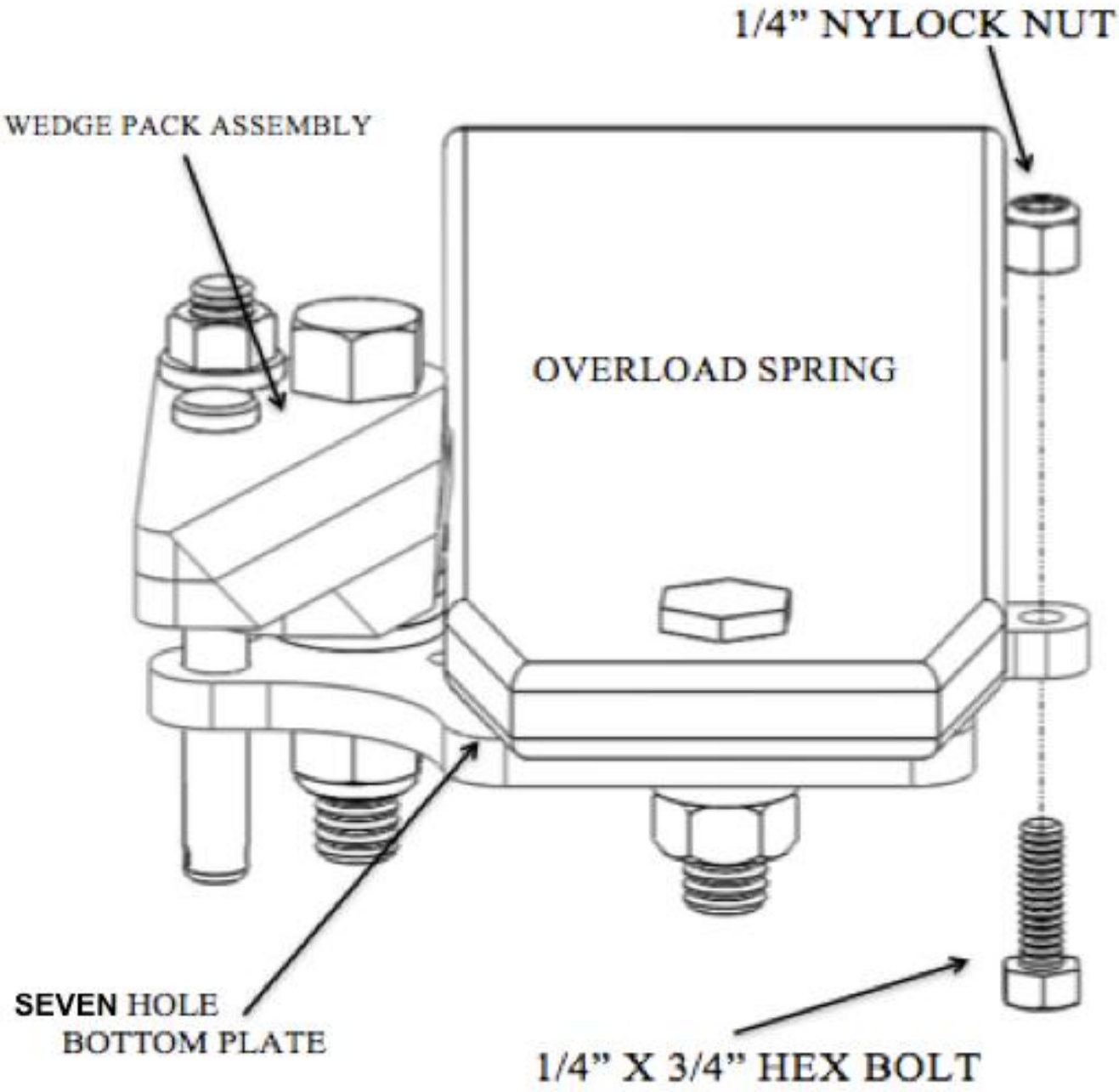
If your overload is between 2-5/8” and 3” you will also use both 1/4” X 3/4” Hex Bolts and both 1/4” Nylock Nuts as seen in **Photo 4.2** below.

PHOTO 4.2



If your overload is greater than 3”, you will only use one 1/4” X 3/4” Hex Bolt and one 1/4” Nylock Nut as seen in **Photo 4.3** below.

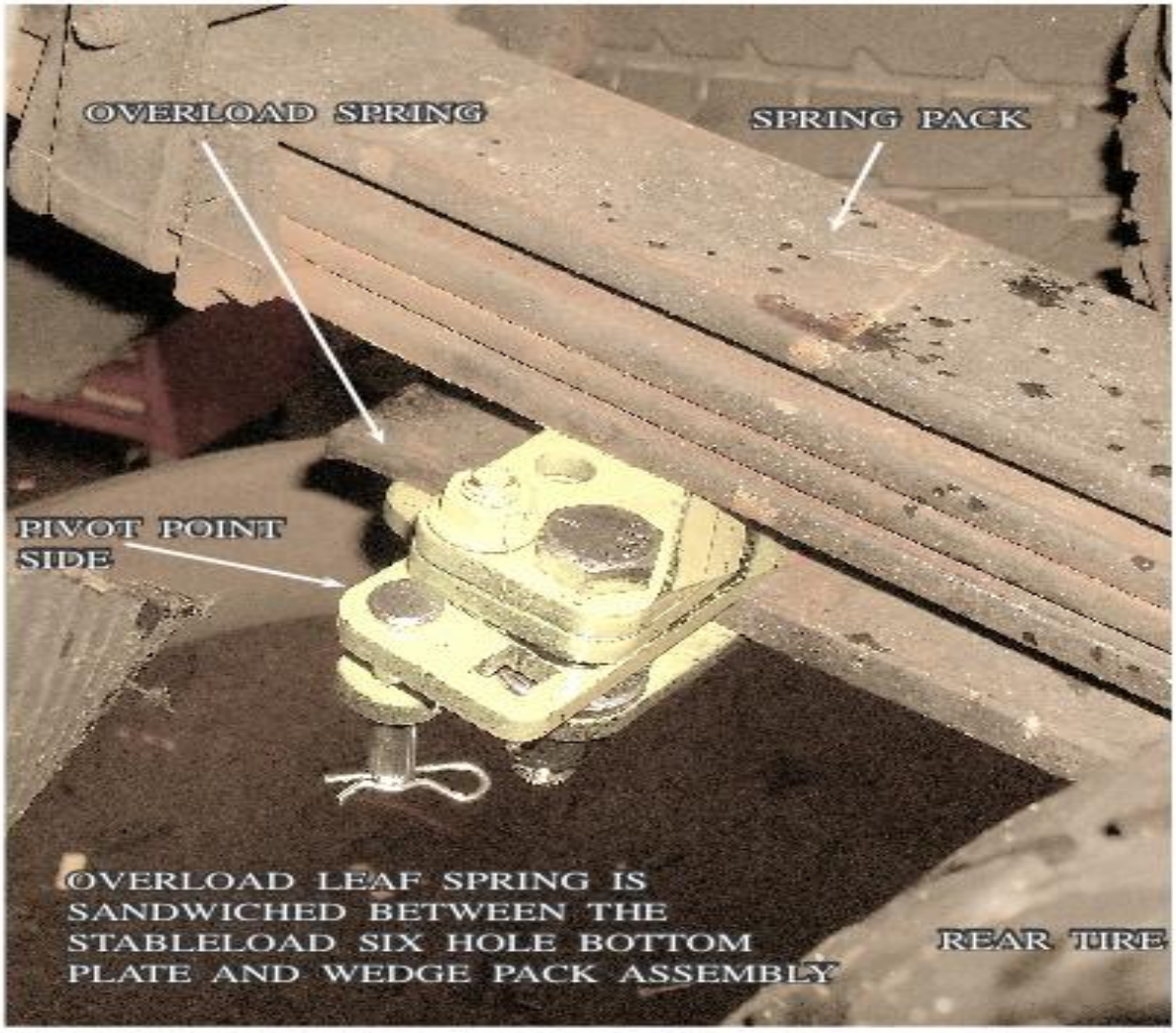
Figure 4.3



Note: In the installation shown above, the washers under the wedge pack act as the rotation stop. Only one 1/4” hex bolt is required to prevent rotation in the other direction.

5. Place one 7/16” X 1-3/4” Low Profile Hex Bolt through the hole in the leaf spring. Then place one Seven Hole Bottom Plate under the overload leaf spring with the pivot point on the inside or outside, depending on clearance. Place one 7/16" USS Flat Washer, one 7/16” Lock Washer and one 7/16” Hex Nut onto the 7/16” X 1-3/4” Low Profile Hex Bolt and tighten to 35 FT - LBS (47 Nm). See photo below. *Use a 3/8”drive ratchet and extension to engage or disengage the StableLoads as needed. Place the Pin and Clip through the remaining hole to lock into place.*

PASSENGER SIDE-REAR STABLELOAD ENGAGED



Note: If the installed Stable Loads result in a rough ride, it may be necessary to adjust the pressure in your airbags or adjust the tension on the WD system.

TorkLift International Limited Lifetime Warranty Information

1901 Fryar Ave Sumner, WA 98390

TorkLift will require proof of purchase to register, with pictures of any defective product before issuing a replacement. TorkLift will not register any product without proof of purchase, which can be faxed, scanned, emailed, or mailed to the information provided below. TorkLift warrants it's hitches, custom hitch receivers, frame mounted tie downs, turnbuckles, and accessories (excluding wire harnesses which carry a 90 day warranty) from date of purchase against defects in material and workmanship under normal use and service for the ownership life of the original consumer purchaser. ALL COMMERCIAL APPLICATIONS ARE WARRANTED FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION/SERVICE. TorkLift will replace FREE OF CHARGE any part, which proves defective in material or workmanship when presented to TorkLift, TRANSPORTATION CHARGES PREPAID by purchaser, at the address above. THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS REPLACEMENT ONLY. LABOR CHARGES AND/OR DAMAGE INCURRED IN INSTALLATION OR REPLACEMENT, AS WELL AS INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH ARE EXCLUDED. This warranty does not include the finish or paint on our products. Rusting, cracking or peeling of the finish is also excluded. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Any damage to TorkLift products as a result of misuse, abuse, neglect, accident, improper installation or any use violation of instructions furnished by TorkLift or WHEN USED IN ANY COMMERCIAL APPLICATION WILL VOID THE WARRANTY. This warranty gives you specific legal rights, and you may also have rights, which vary from state to state. With warranty service, you may be able to go to a small claims court, a state court or a federal district court.

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1901 Fryar Avenue **Phone (800) 246-8132**
Sumner WA, 98390 **Fax (253) 854-8003**
or visit our website: www.TorkLift.com

Dear Valued Customer,

Thank you for making TorkLift your choice for truck, camper packages and accessories for your vehicle. By choosing TorkLift products, you have chosen a company that has been serving the RV industry for nearly 40 years and whose name has become synonymous with strength, quality and advanced design and installation.
Please take a few moments of your time to complete the Product Registration Warranty Card on the next page. When registering your newly purchased TorkLift products, you can be assured that your contact information is secure and that you and your product are getting the attention and respect that you deserve.

Thank you again for choosing TorkLift quality products.

Register for your lifetime warranty and receive a free Torklift International gift.

To Fax: Send copies of the questionnaire, warranty card and receipt to 253-854-8003
To E-mail: Send copies of the questionnaire, warranty card and receipt to warranty@torklift.com
To Mail: Send to Torklift International 1901 Fryar Ave Sumner, WA 98390

TORKLIFT INTERNATIONAL

OVER 35 YEARS OF INNOVATION, QUALITY, SAFETY.

OFFICIAL WARRANTY REGISTRATION CARD

PLEASE FILL OUT THIS FORM COMPLETELY AND RETURN TO TORKLIFT WITHIN 30 DAYS OF PURCHASE ACCOMPANIED BY A COPY OF YOUR ORIGINAL RECEIPT

TODAY'S DATE: _____

1. PART(S) PURCHASED

PART#: _____ PART#: _____

PART#: _____ PART#: _____

2. PURCHASER INFORMATION

NAME: _____

ADDRESS: _____

_____

CITY: _____ STATE: _____ ZIP / POSTAL CODE: _____

PHONE: (_____) _____-_____ EMAIL: _____

3. TRUCK INFORMATION

YEAR: _____ MAKE: _____

MODEL:_____ BED LENGTH: _____

4. CAMPER INFORMATION

YEAR: _____ MAKE: _____ MODEL: _____

5. DEALER INFORMATION

PURCHASED FROM: _____

ADDRESS:_____

CITY: _____ STATE: _____ ZIP / POSTAL: _____

INSTALLED BY: ☐ OWNER ☐ ABOVE DEALER ☐ ANOTHER DEALER

IF ANOTHER DEALER, WHO: _____