

OTR-BI-150

Base OutRigger Manual & Assembly Guide

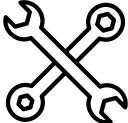
v0.02 - 5/24/26



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MEASURING TAPE
9/16 CRESCENT WRENCH
7/16 CRESCENT WRENCH
7/8 CRESCENT WRENCH
13/16 CRESCENT WRENCH
3/8 CRESCENT WRENCH
3/4 SOCKET
13/16 SOCKET
9/16 SOCKET
3/8 SOCKET
SCREW GUN WITH #3 PHILLIPS DRIVERS
SOCKET ATTACHMENT FOR SCREW GUN (GREATLY SPEEDS UP ASSEMBLY)
WIRE CRIMP TOOL
GREASE GUN WITH AXLE GREASE (MARINE GREASE)
10MM CRESCENT WRENCH



TOOLS REQUIRED

Trailer Setup & Usage

Outrigger CLEARANCE requirement - Pro & Base

Do I need to add wood to the top of my trailer?



Outriggers require **15.25"** of clearance to fit underneath a pontoon.

Determining How Much Wood to Add:

Measure the Distance Between the Ground and Pontoon

(See Red Dotted Line in Configuration.)

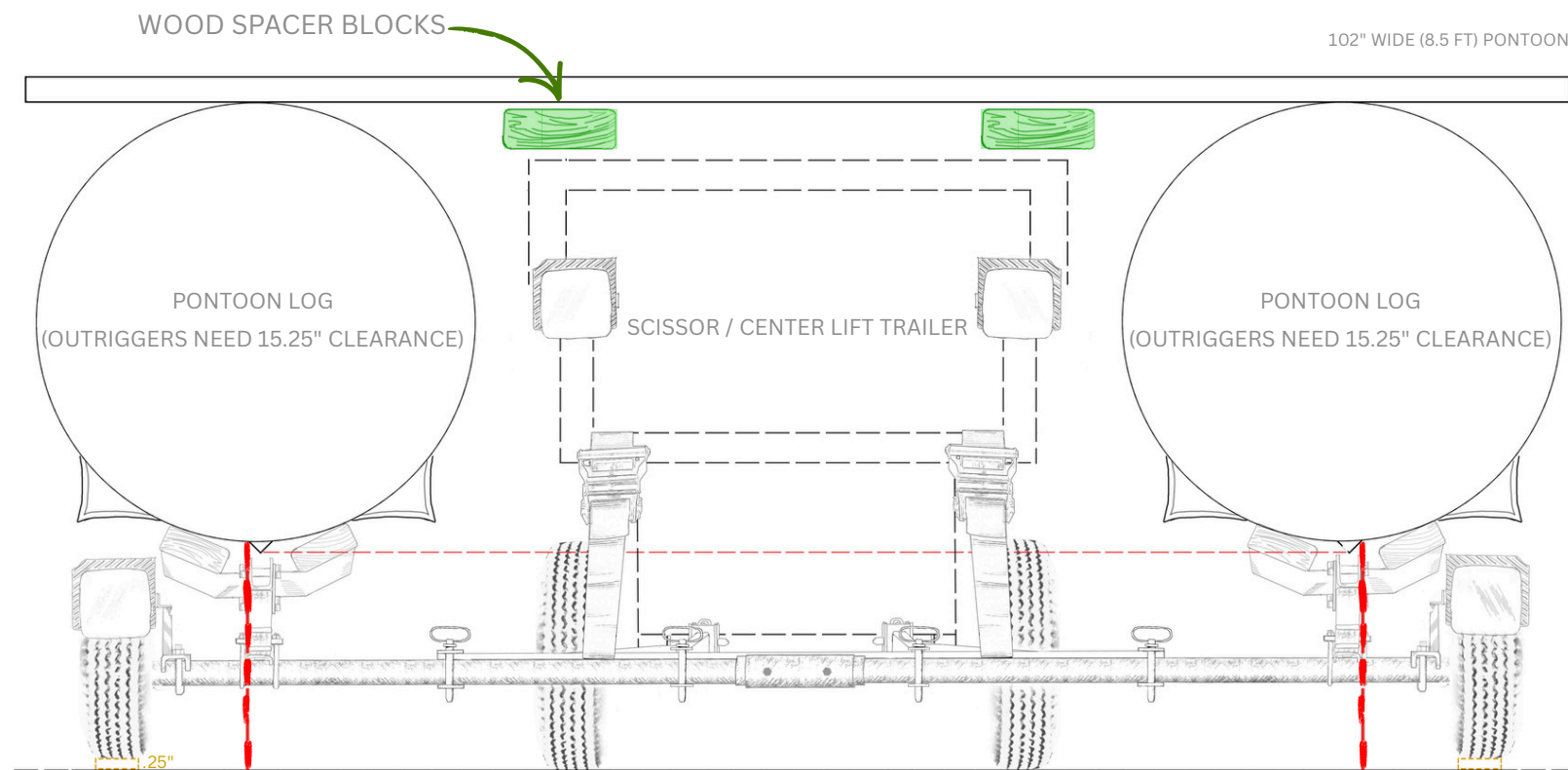
Note: Measure From the Face of the Log, Not the Tip of the Keel.

Subtract the Measurement From **15.25"**.

Add the Difference to the Top of the Trailer.

Example: **15.25"** - **13.75"** = **1.50"**

Add (1) **Two-by-Four** (1.5") to the Top of the Trailer.



Overshooting the 15.25" height requirement is ok.
You can adjust the height of the trailer to trim extra height to ensure the cradles are in contact with the pontoon for an optimum ride.

Giving yourself a little more room, for example **16"** will give you more flexibility when detaching the outriggers on uneven surfaces or soft surfaces.

Outriggers are designed to ride **.25" above the ground** or **lightly contacting the ground**.

Attaching Wood to the Top of the Trailer

There are 3 ways to attach wood to the top of these trailers.

- 1: Bolts or Self Tapping Screws Run through 2x4 wood into the metal.
- 2: Weld-On, Bracket, Used To Add 4x4 lumber to Hoosier BX series Tri-toon Rails
(Hoosier makes these from the factory.)
- 3: **Bolt-On, Bracket**, Used to attach 2x4 or 4x4 lumber to top of trailers.
This is the least destructive for galvanized finishes as it does not puncture through the coating.



Bolt-On / Self Tapping Screws
We Ship 25 2.5" Self Tapping
Screws with every order.



Weld-On Bracket
Obtainable through Hoosier
directly



Bolt-On Bracket
We make these, Call us for details.
(313) 434 - 4314

Bolt-On Bracket - Call for Details (313) 434 - 4314



Base Outrigger Usage



Documentation Coming Soon.
Questions, Call 313 434 4314



Base Outrigger Assembly Guide



Step #1 - Assembling the Receiver





01 ———

Get Yourself a Good Table to Work on, Lay Out These Parts on the Table, and Gather the Following Hardware:

10 x $\frac{3}{8}$ 4" Bolts
 4 x $\frac{3}{8}$ 2.5" Bolts
 16 x 9/16 Spacer Nuts
 4 x 1.5" Washers
 14 x $\frac{3}{8}$ Nylock Nuts
 12 x Metal Plates

02 ———

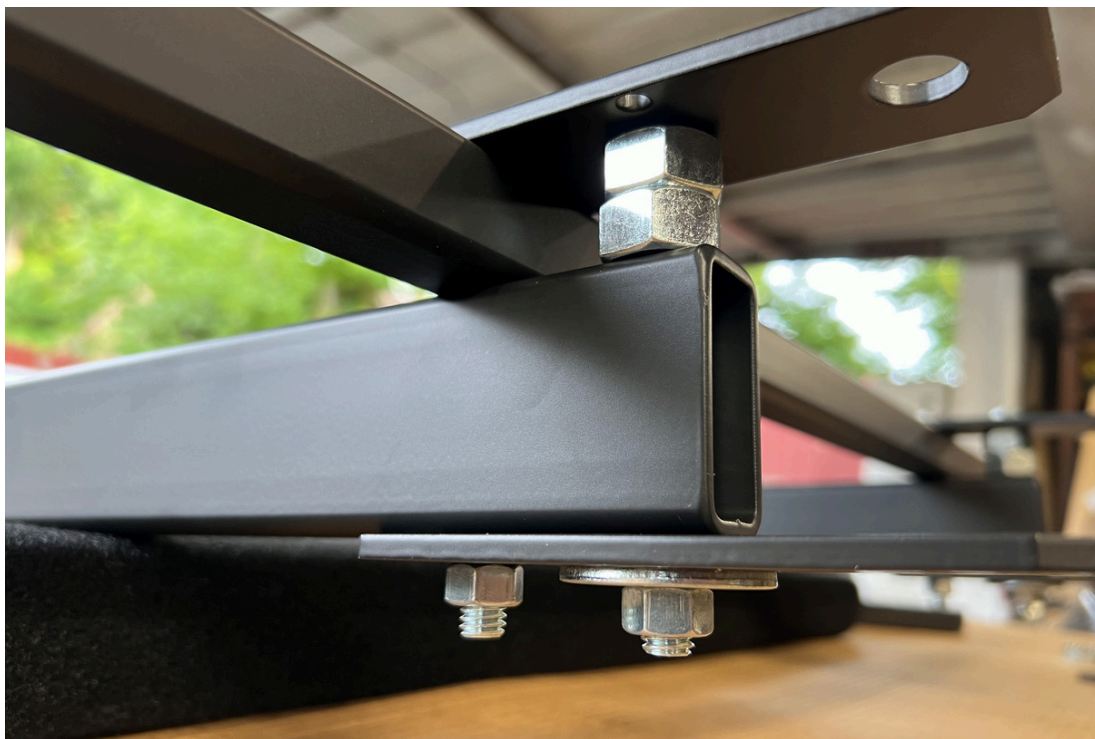


03 ———

Start by Placing the Cross Bar on Top of the Two Receiver Arms.
 Place Two 9/16 Nuts on Each Receiver Arm.



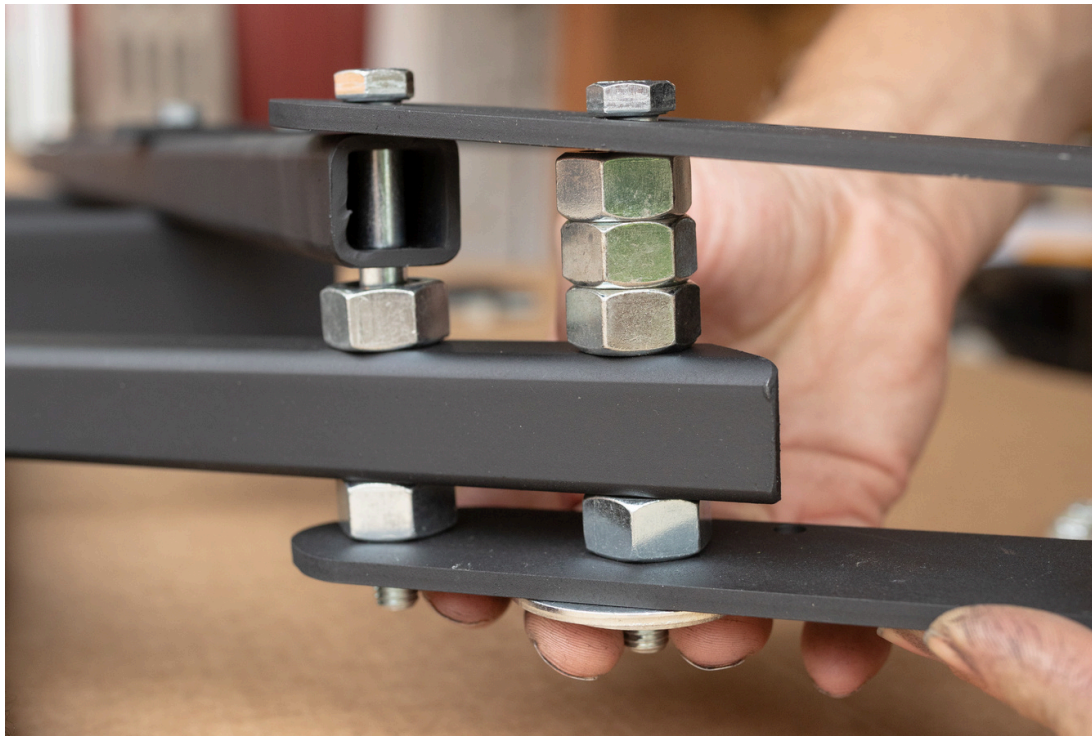
04 — Place Two 4" Bolts in the Other Inner Steel Jaw Plates.



05 — Place 1.5-Washer 1.5-inch on the Outermost Bolt Hole. Secure With Nylocks.



06 — Assemble the Outer Steel Jaw Plates. Place Jaws With PIN Hole Facing Out. See Arrow.

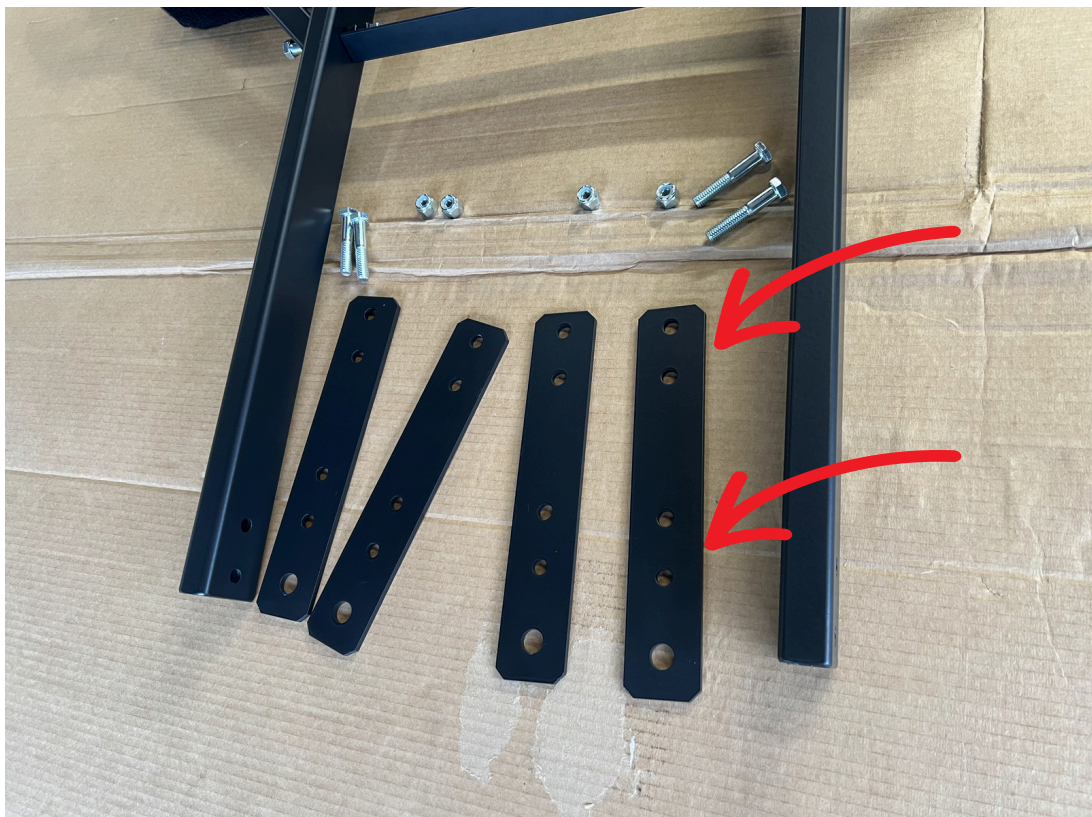


07 — Assemble the Outer Jaw Plates in the Following Configuration With Size 9/16 Spacer Nuts.



08 ——— Add the Connector Center
Brace Between the Receiver
Arms Using a 4" Bolt.





09

These Bigger Plates form the Jaw of the Connector Arms that bolt the trailer brackets.

Sometimes trailer frames sit really low and the OutRigger receiver will hit part of the trailer and needs to sit farther back.

They have 2 configurations the difference is approximately 5"



Configuration #1



Configuration #2

Recommended



09 ——— Tighten down all the bolts.



Gather the Following

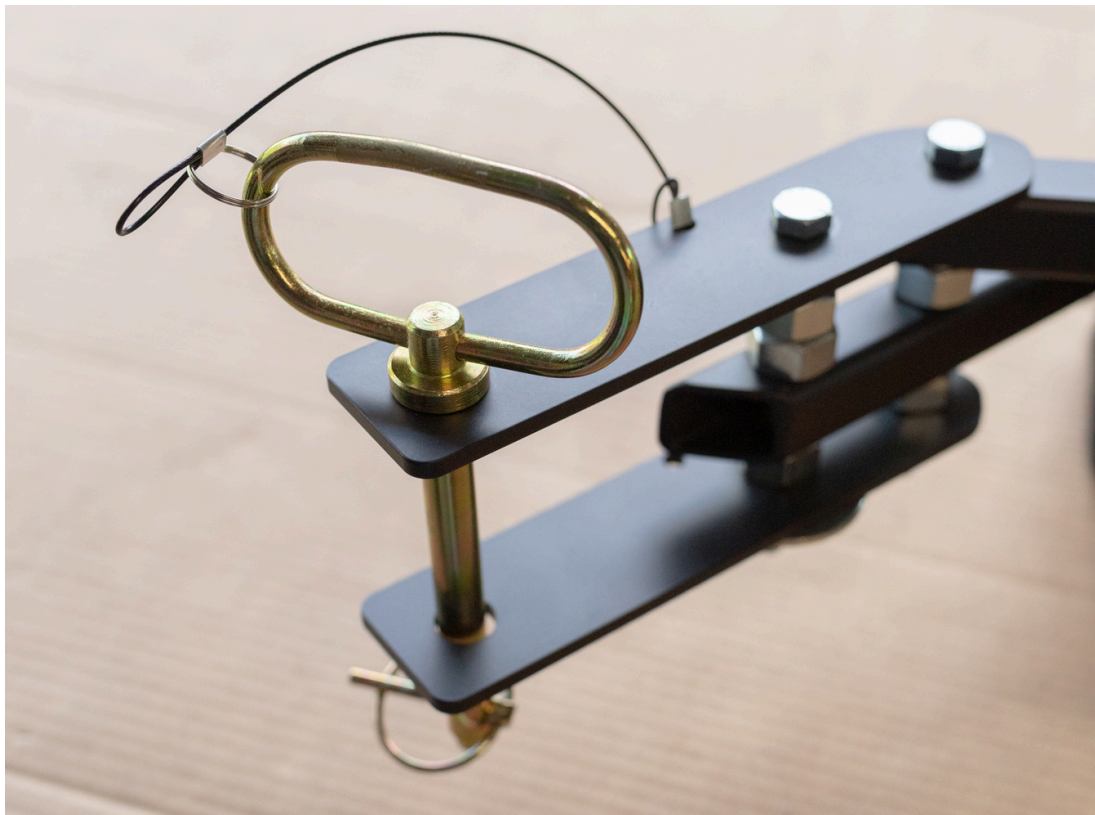
10 ———
4 x HITCH PINS
4 x LYNCH PINS
4 x LANYARDS
4 x KEY RINGS



11 — Loop the lanyard through the hole.



12 — Connect the lanyard to the hitch PIN with a key ring and insert Lynch PIN.
Discard hair PIN clip.



13 ——— Insert PIN into the receiver.



14 ——— The receiver is complete.
Ensure all nuts and bolts are tight.

Step #2 - Assembling the Axle





Gather the following parts:

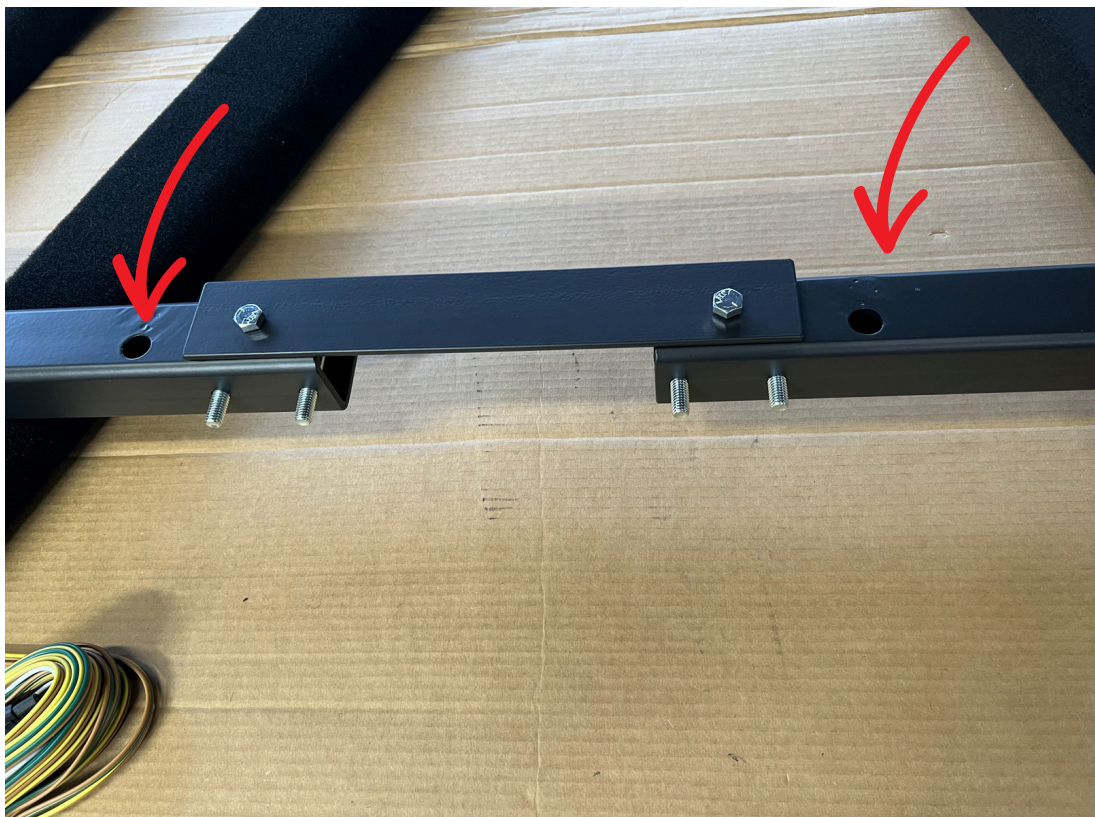
01 —

Half-axles
Center coupler
Lighting wiring
6 x 3.0" bolts
6 x 3/8 nylocks
ZIP ties



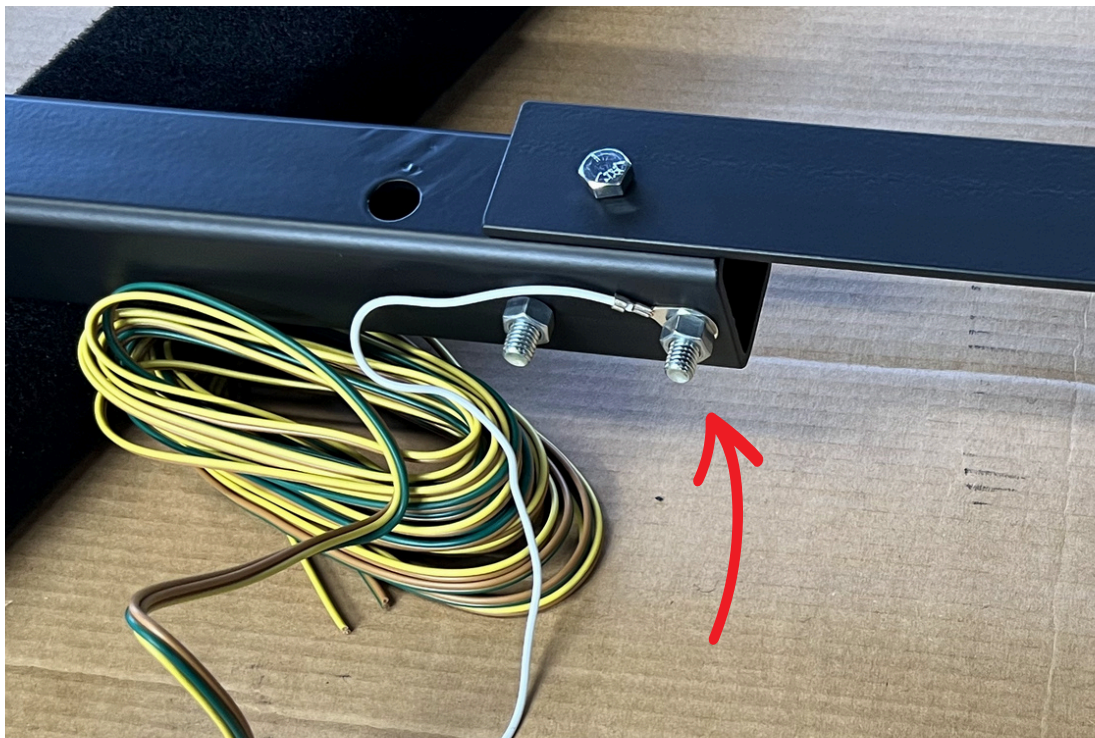
02 —

Lay out both axles on wooden
bunks for easier assembly like
so.



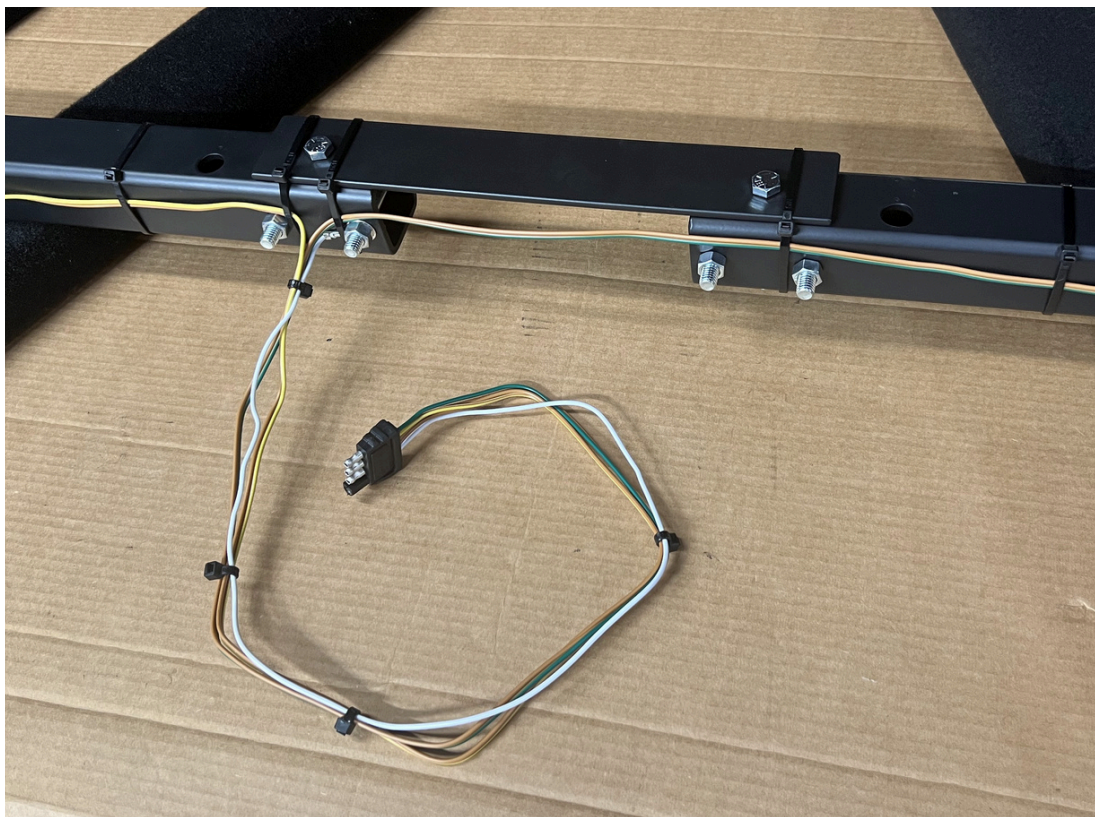
03

Assemble the half-axes into the center coupler. Ensure the **Pin Holes on the axles are facing back**. Like so in the picture



04

Add Lighting Ground Terminal and tighten down Bolts.



05 ——— Zip Tie Generously As-Shown





Step #3 - Assembling the Hubs





Gather the following:

- 01 ——— Hubs
Spindle nut kits



- 02 ——— Lay out parts



03 ——— Ensure bearings slide on spindle smoothly using marine grease.



04 ——— Lay hub face down. Drop bearing and seal into the center.



05 ———

Using a hammer and block of wood, drive in the seal square and true.

Lather marine grease onto the seal.



06 ———

Slide hub onto spindle.

Insert bearing.

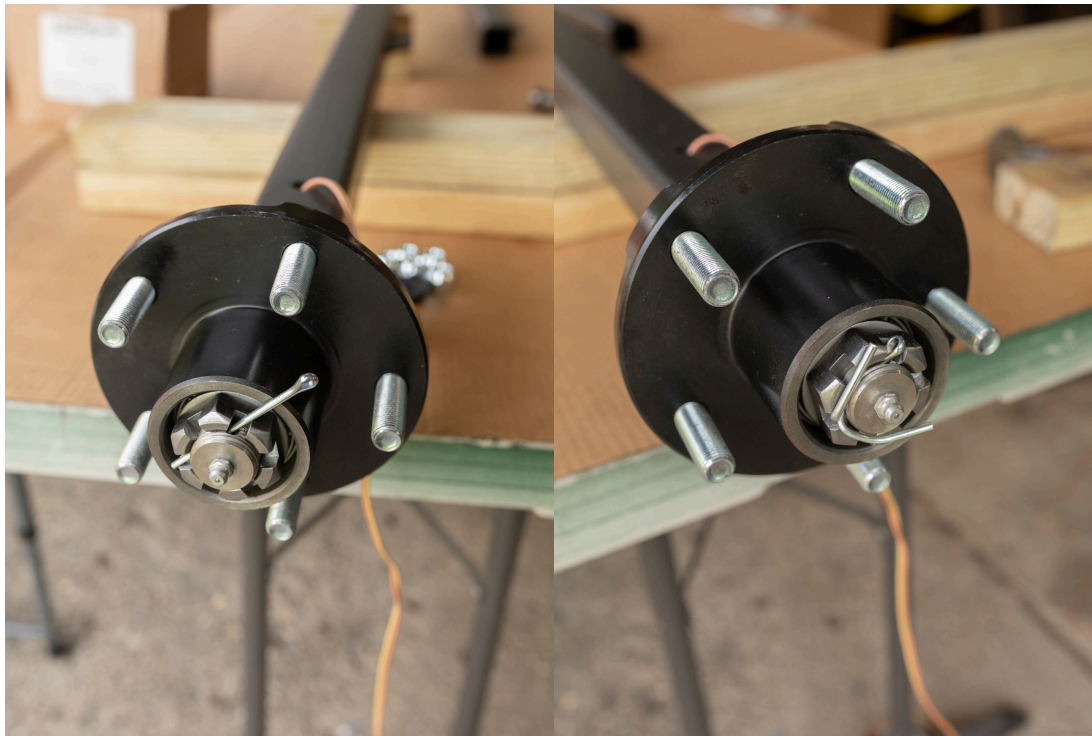
Insert washer.



07 ———

Install castle nut. Repeatedly tighten and loosen (about 4x) to ensure the bearings are seated properly.

Spin hub during the process to ensure bearings are seated properly.

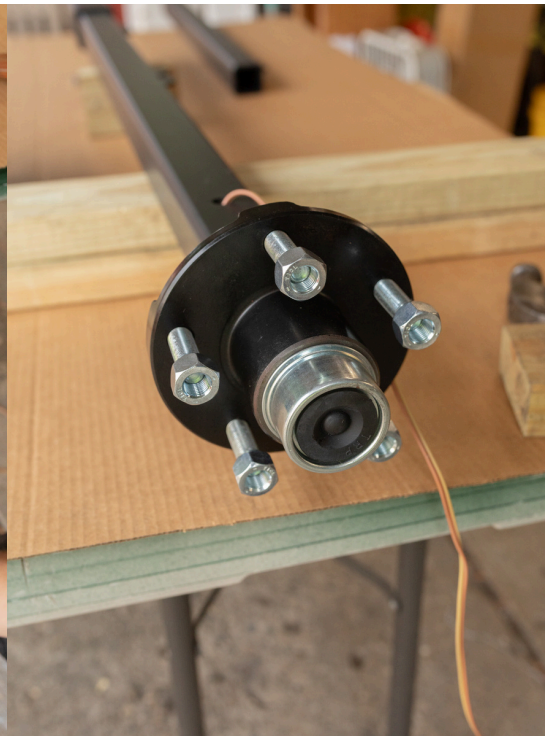


08 ———

After the nut is seated, loosen about $\frac{1}{4}$ turn until the cotter PIN can slide through the spindle shaft.



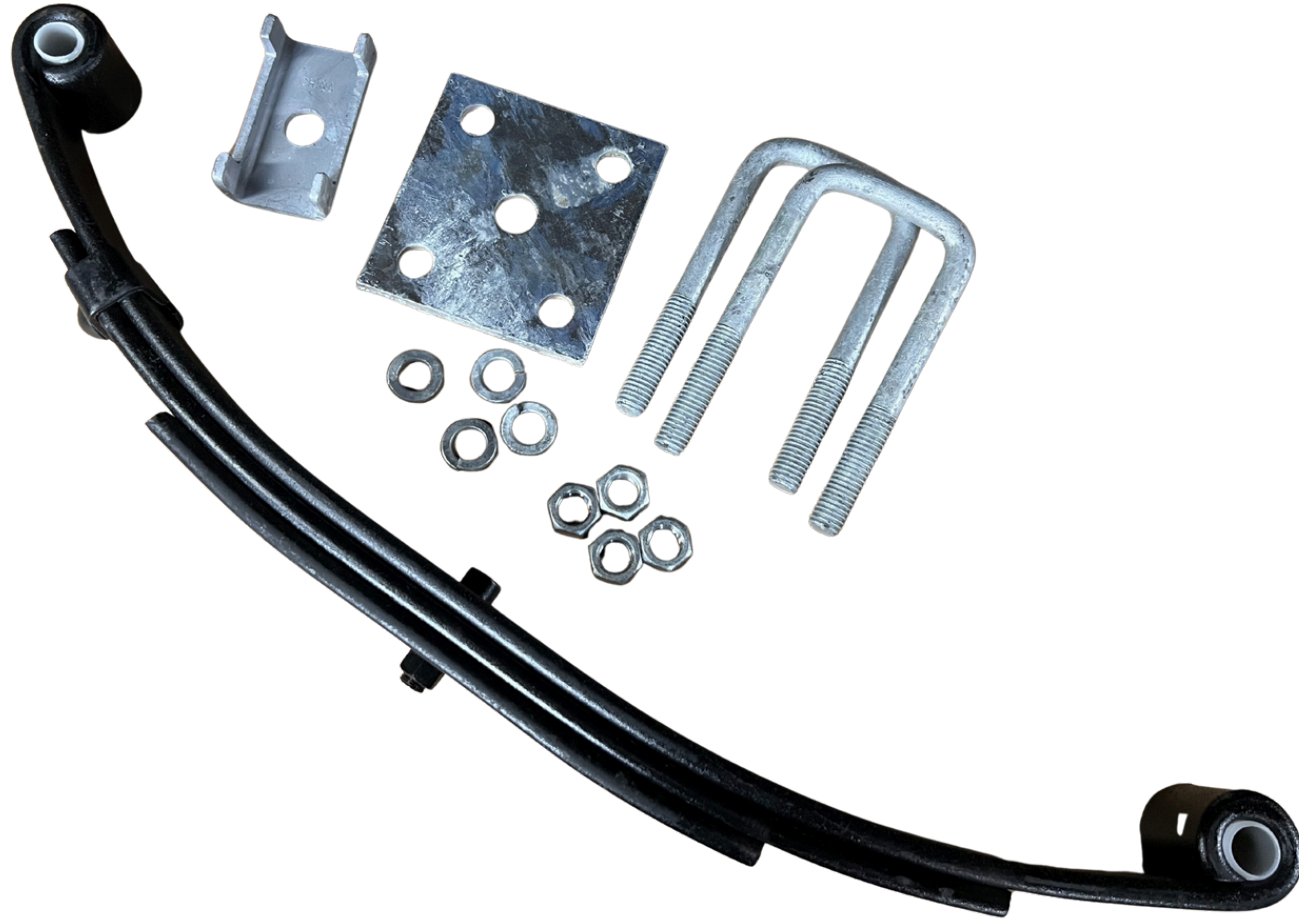
09 ——— Using a hammer and a block of wood, drive on the grease cap.



10 ——— Pump the axle full of grease using a grease gun (marine grease preferred). If you skip this step, hubs will be destroyed immediately on the road.

Insert rubber dust cap.

Step #4 - Assembling the Leafs Springs





Gather the following:

Leaf springs

Cradles

Saddles

2 x SQ - U-Bolts / TiePlate Kits

01 ——— 6 qty. Zinc shackle bolts

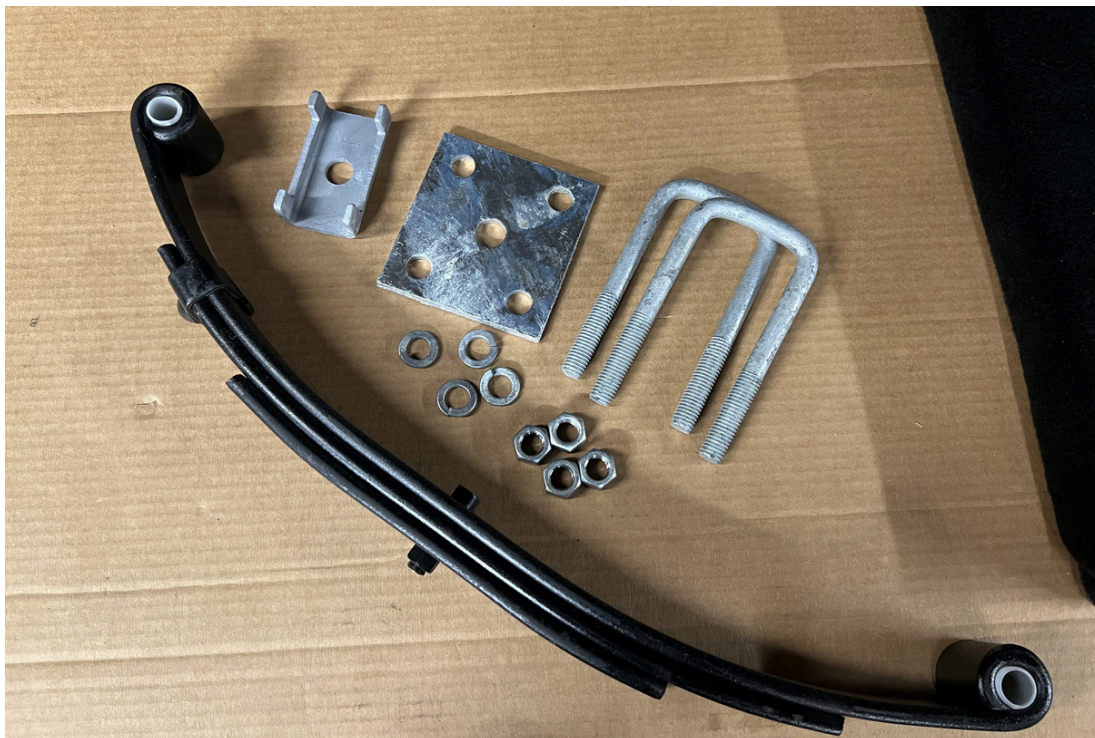
6 qty. Shackle bolt nuts

Cradle safety spacers

4 x 1/4-20 bolts

4 x 1/4"-20 nylock nuts

4 x 2.25" leaf spring shackle



Lay out the following parts

02 ——— Leaf spring

2 x U-bolts

Saddle

Tie-plate

4 x Nuts with Lock Washers

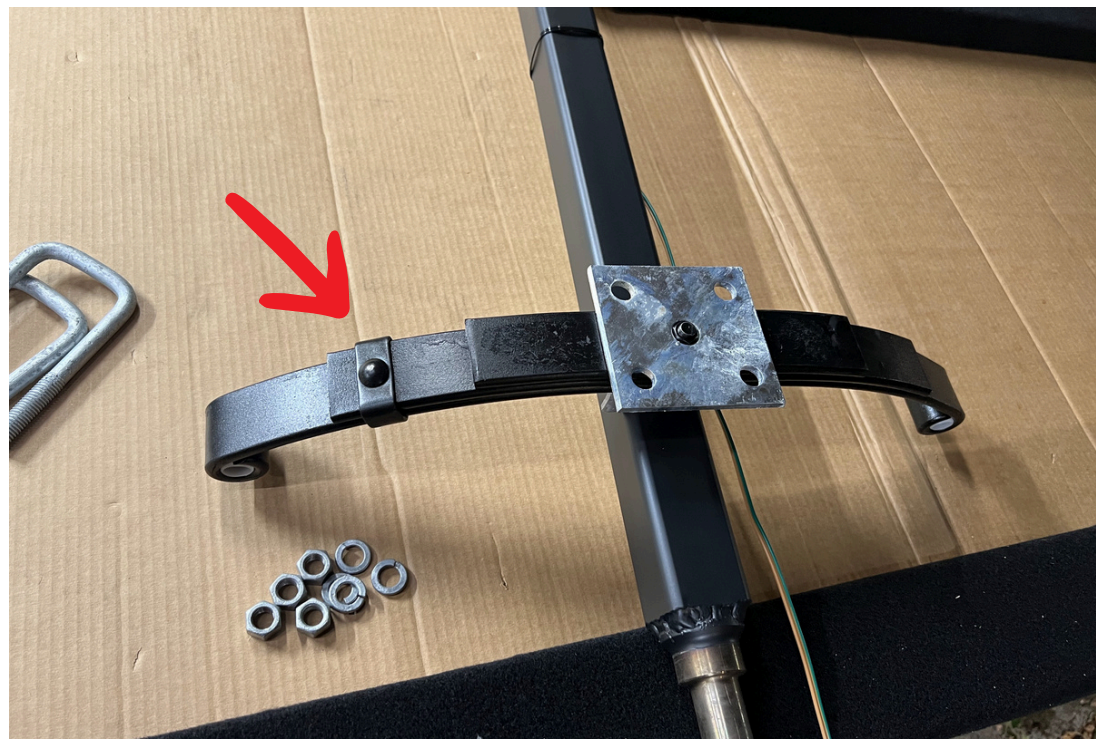


03 ——— Ensure the Axle is in the correct orientation with the Pin Holes facing towards the back.

04 ——— To install the Leaf Springs easily, Flip the Axle 180* degrees to it is up-side down.



05 — Place the Saddle on top of the axle.



06 — Place the Leaf Spring and Tie Plate on the saddle.
 With the clasp facing back like so.
 (so when you flip the axle up-right, it the clasp is facing forward.)



07 ———

Install Nuts, leave the nuts slightly loose so the cradles can slide In & Out.



08 ———

Flip the axle over 180* so it is up-right. The leaf spring should look like so.



NOTE: the leaf spring clasp faces forward. And the Pin Hole in the axle faces back.



09 ——— Repeat Leaf Spring install for
for Other side of Axle

10 ——— Measure your Pontoon's Keel to
Keel. See Next Page

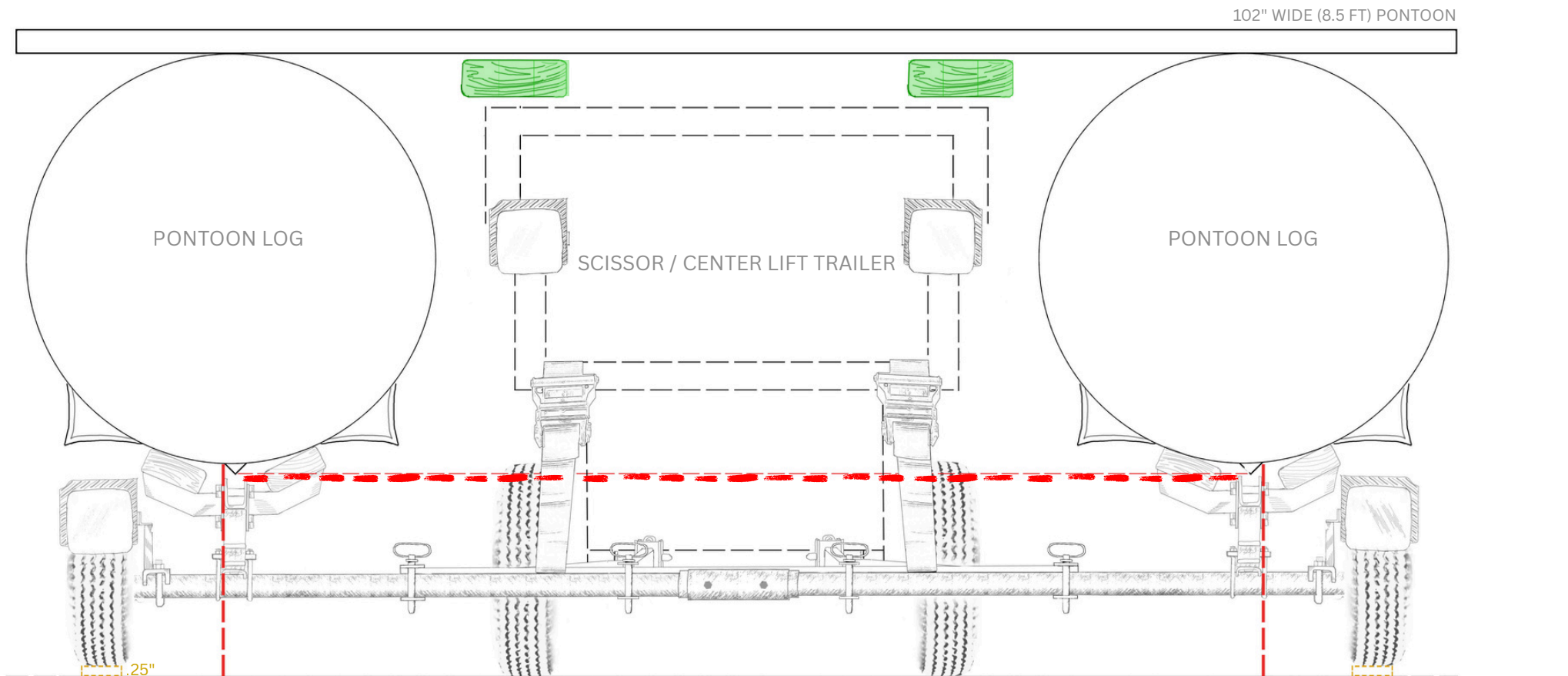
How to Measure your Pontoons Keel to Keel



Determining you Keel to Keel

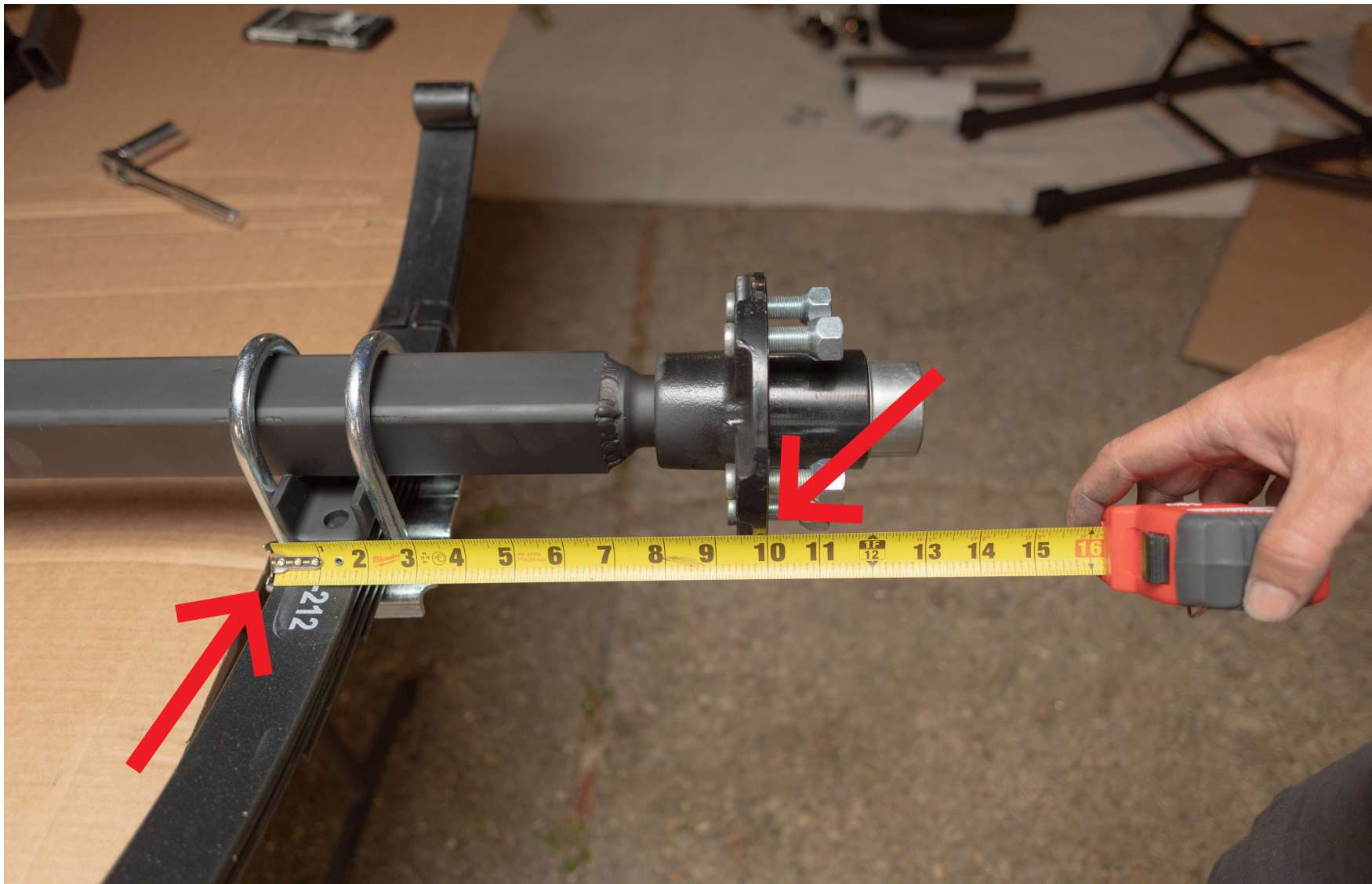
Measure the Distance Between the Keels of your Pontoon Logs as shown.
(See Red Dotted Line in Configuration.)

The Keel is the very tip, or bottom, of your pontoon log.



11

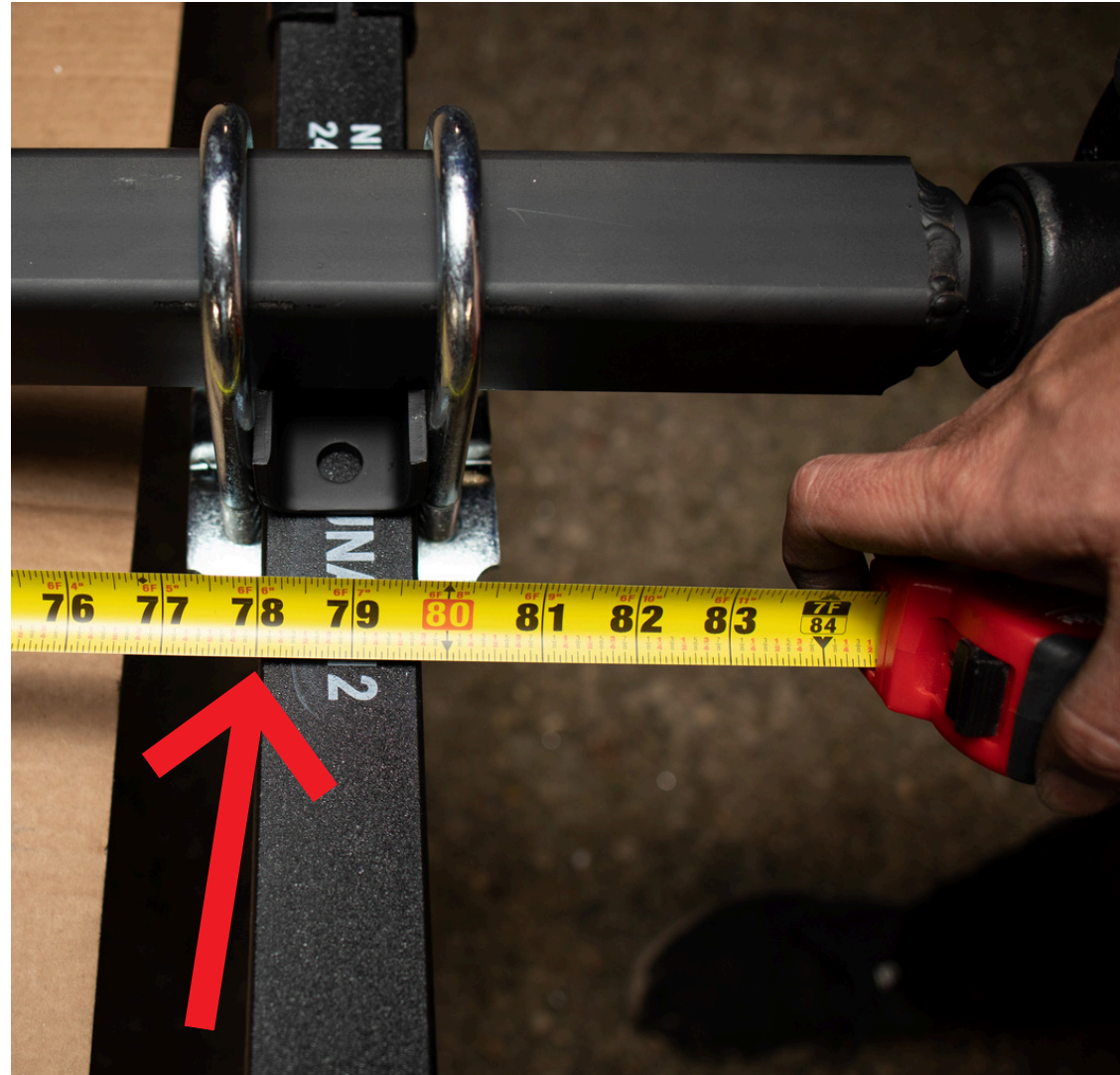
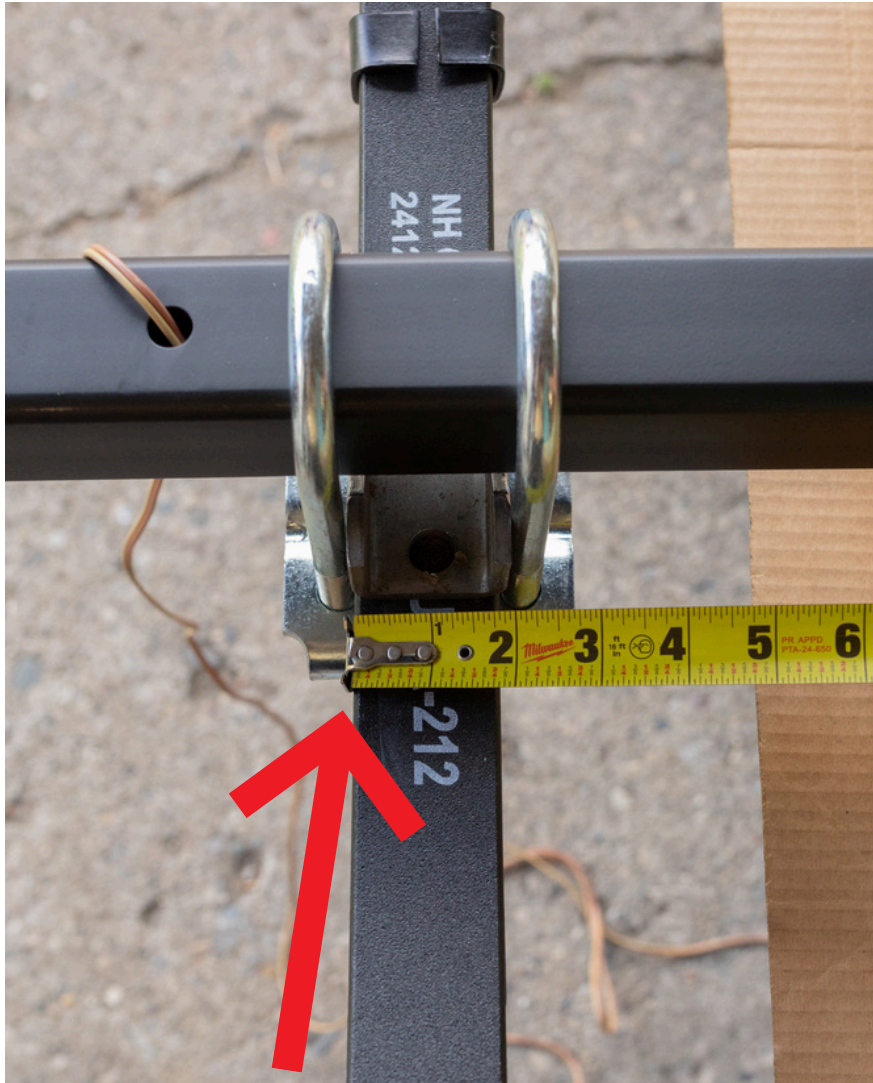
To ensure your springs are centered, make sure the distance between the spring and the face of the hub is **even on both sides** before proceeding.
Pick a Number like 10" for example



12

Using your keel to keel measurement, slide your leaf springs In or Out to the correct distance.

You want the distance between your leaf springs to match your pontoon's keel to keel.

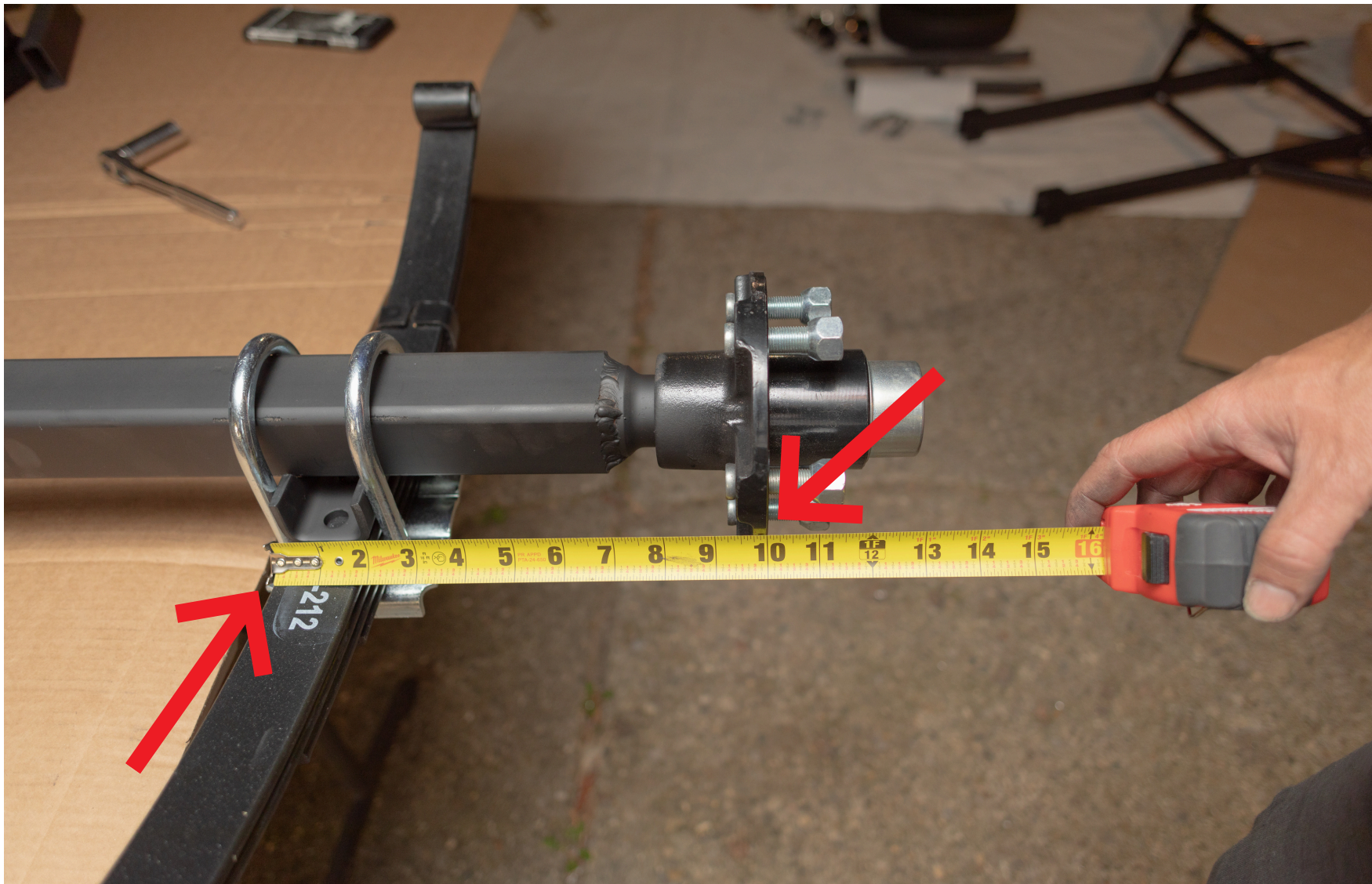


(In this example the Keel to Keel is 78") 40

13

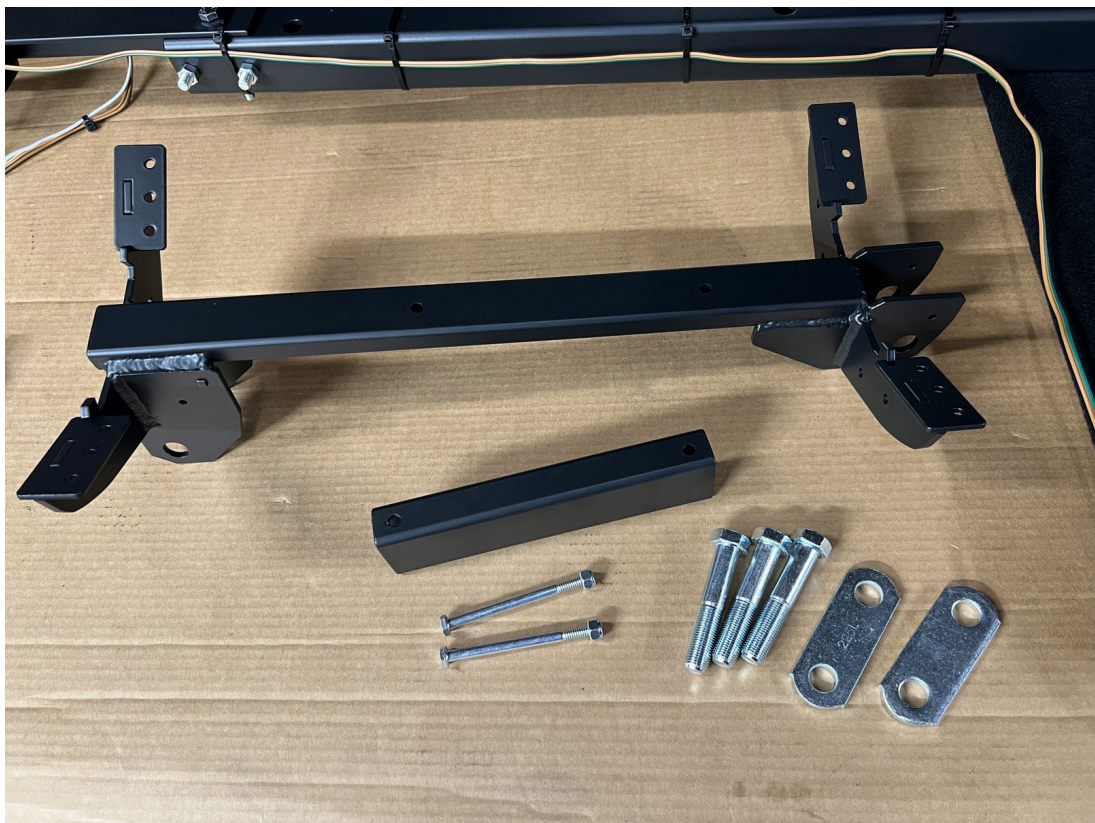
Double Check your springs are centered, make sure the distance between the spring and the face of the hub is **even on both sides.**

Tighten Down the Nuts on your Leaf Springs.



Step #5 - Assembling the Cradles





01 ———

Gathering the following parts

2 x Buffer Bar Stop

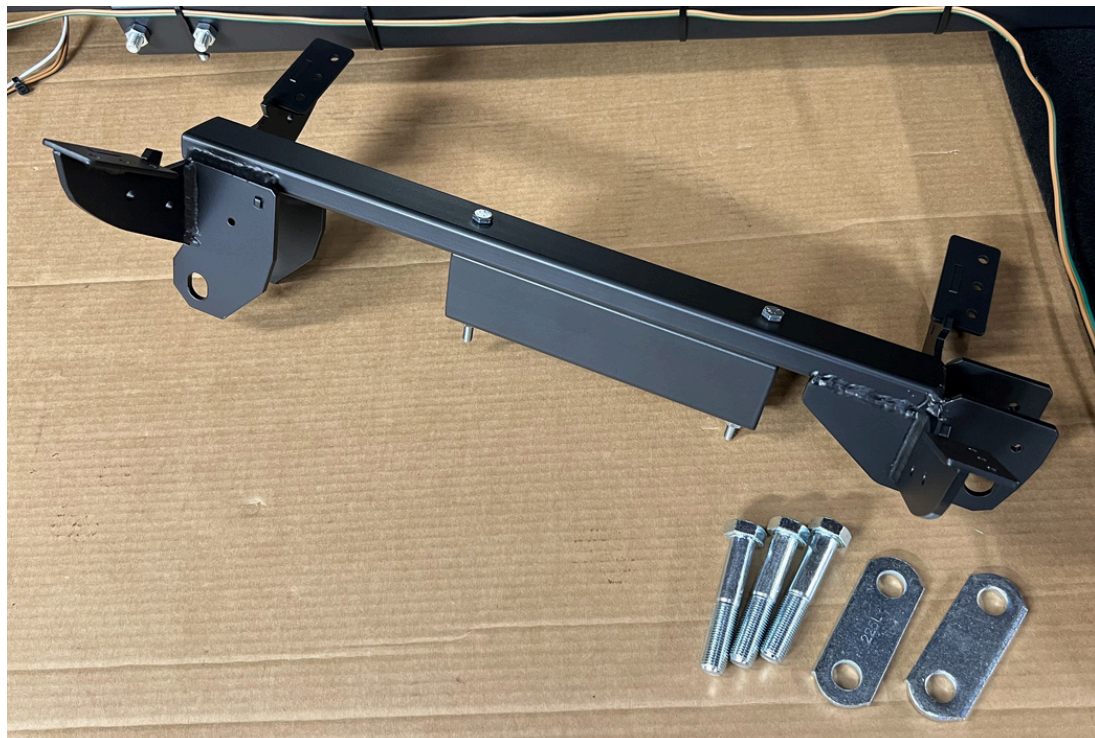
4 x 4" 1/4-20 Bolts

4 x 1/4-20 Nylock Nuts

4 x Zinc Shackles.

6 x 9/16 Shackle Bolts

6 x 9/16 Stover Nuts



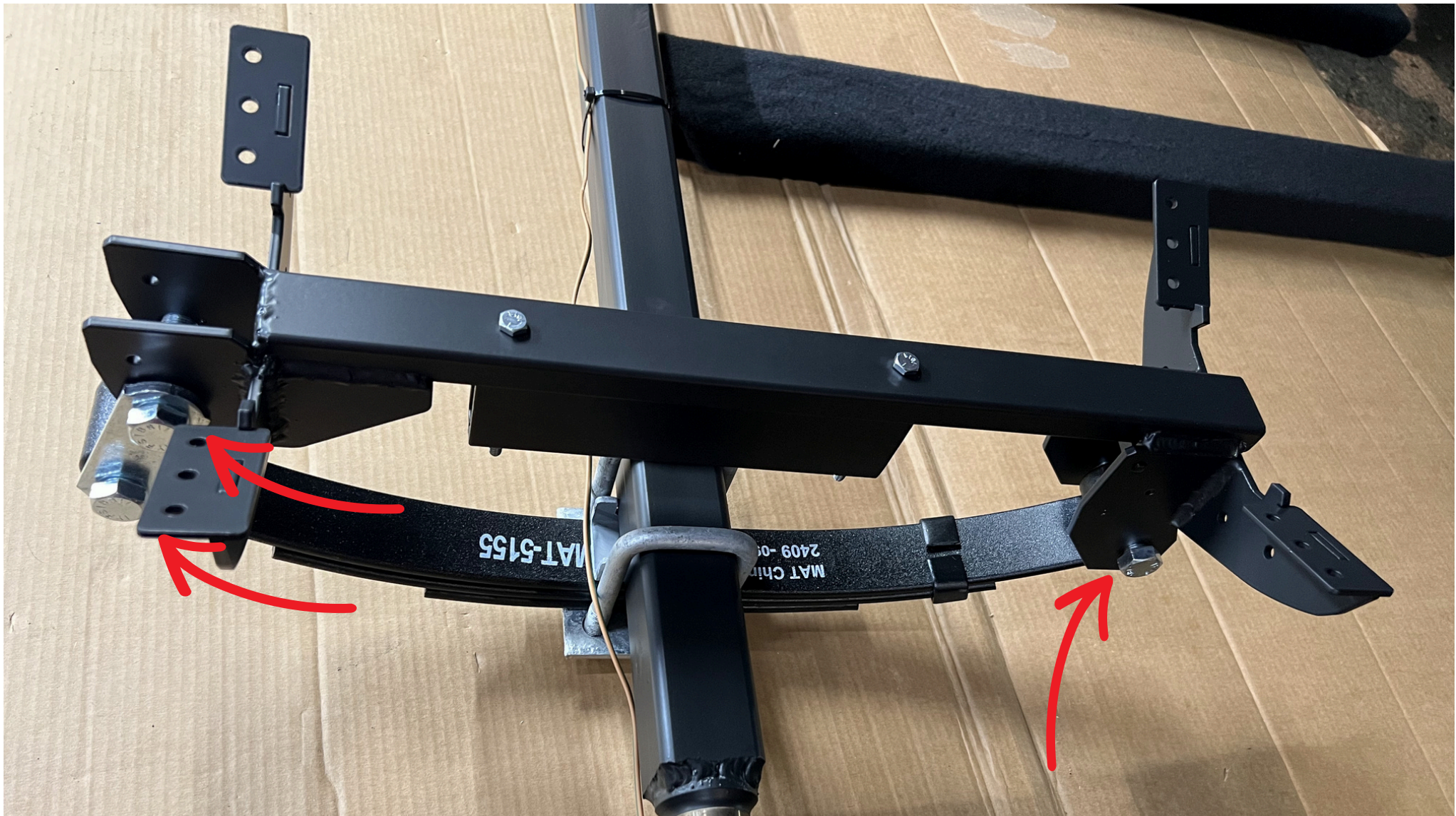
02 ———

Assemble Buffer Stop Bar As
Shown with the 1/4 20 Bolts &
Nuts.

Install Cradles onto Leaf Springs -- Tighten Down Lock Nuts.

03

The Cradle is designed to Articulate a few degrees in either direction.
Snug the shackle bolts just enough to allow the cradle to articulate.



Step #6 - Assembling the Tires





01 ——— Install tires with Tire Nuts. And Tighten down.



Step #7 - Assembling the Fenders





01 ———

Gather the following:

Left & Right fenders
 Left & Right lights
 2" sq. U-bolts
 4 x Carriage bolts
 4 x Keps nuts
 Fender brackets

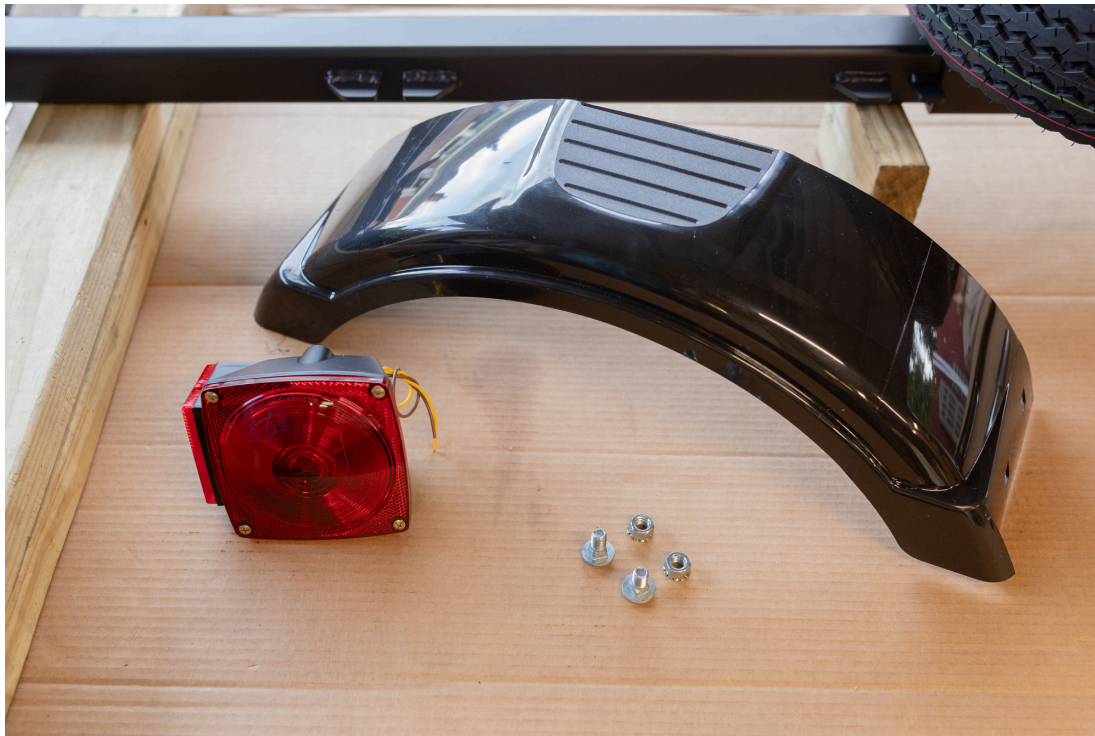


02 ———

Install fender brackets on axle
 with U-Bolts. (See Spacing on
 Next Page)



03 ——— Ensure fenders are parallel to the tire. Space is roughly 1/2-5/8". (a good finger width)



04 ——— Gather:
Lights
Fenders,
Carriage bolts
Keps nuts.



05

Install fender using carriage bolts and keps nuts, snug by hand.

Don't tighten just yet.

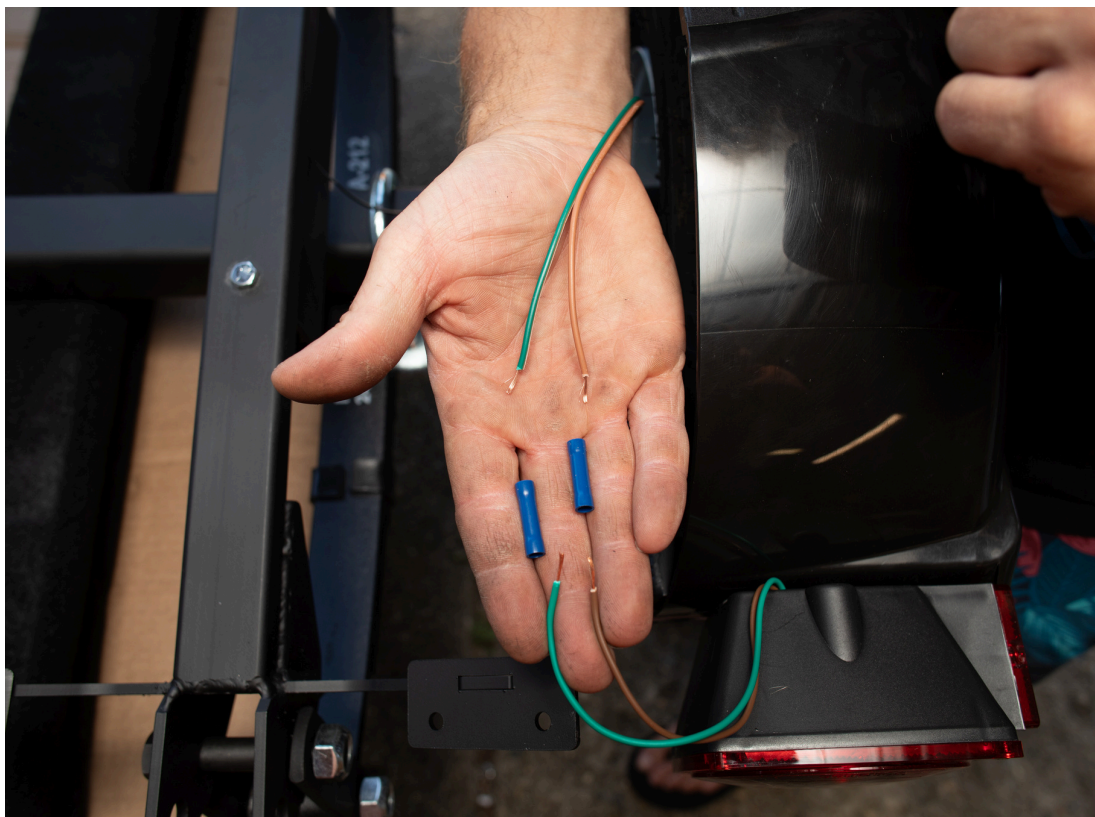


06

Insert light snug nuts by hand.

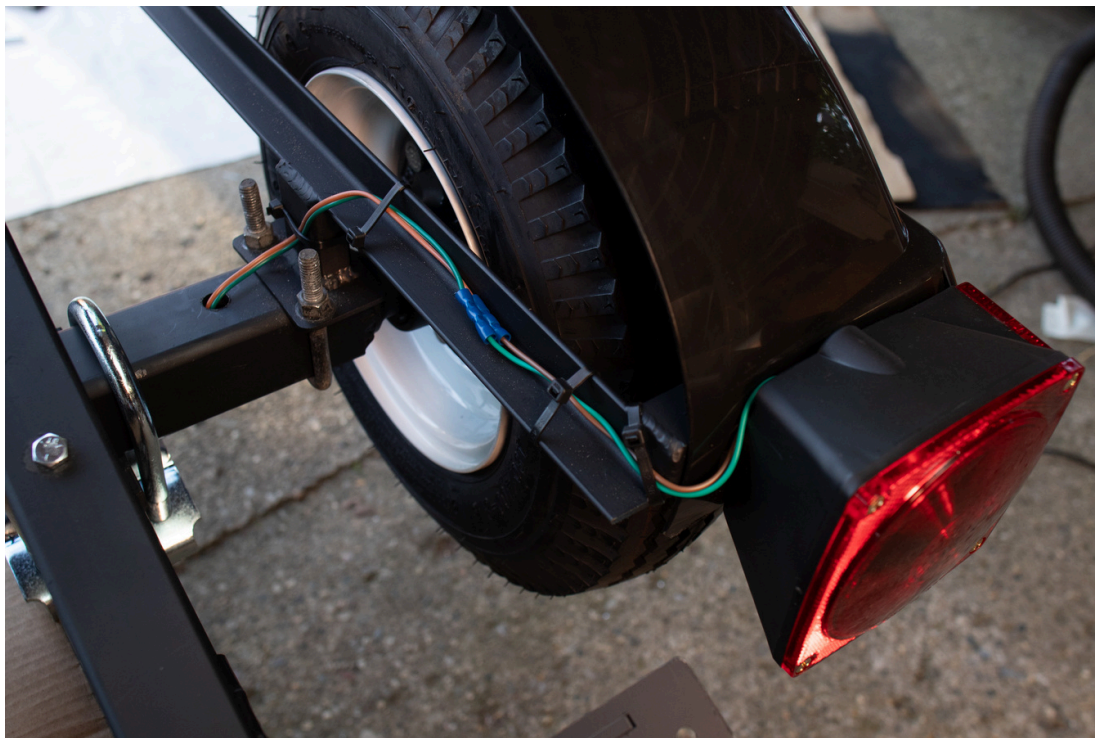
Ensure fenders are plumb to the tire. Visually check to make sure every thing looks Sqaure and True.

Tighten all nuts.



07 ———

Trim excess wire coming from axle strip the ends and insert them into the light in the color coded holes.



08 ———

ZIP tie wires abundantly as shown.

Repeat for other side.

Step #8 - Attaching the Wood Bunks



01 ————— Gather wood bunks and 24 Phillips screws.



02 ————— Flip each bunk and using a measuring tape, draw a LINE at 6.5"



Place bunk onto cradle.

03

— The LINE should be facing
towards the back as shown -

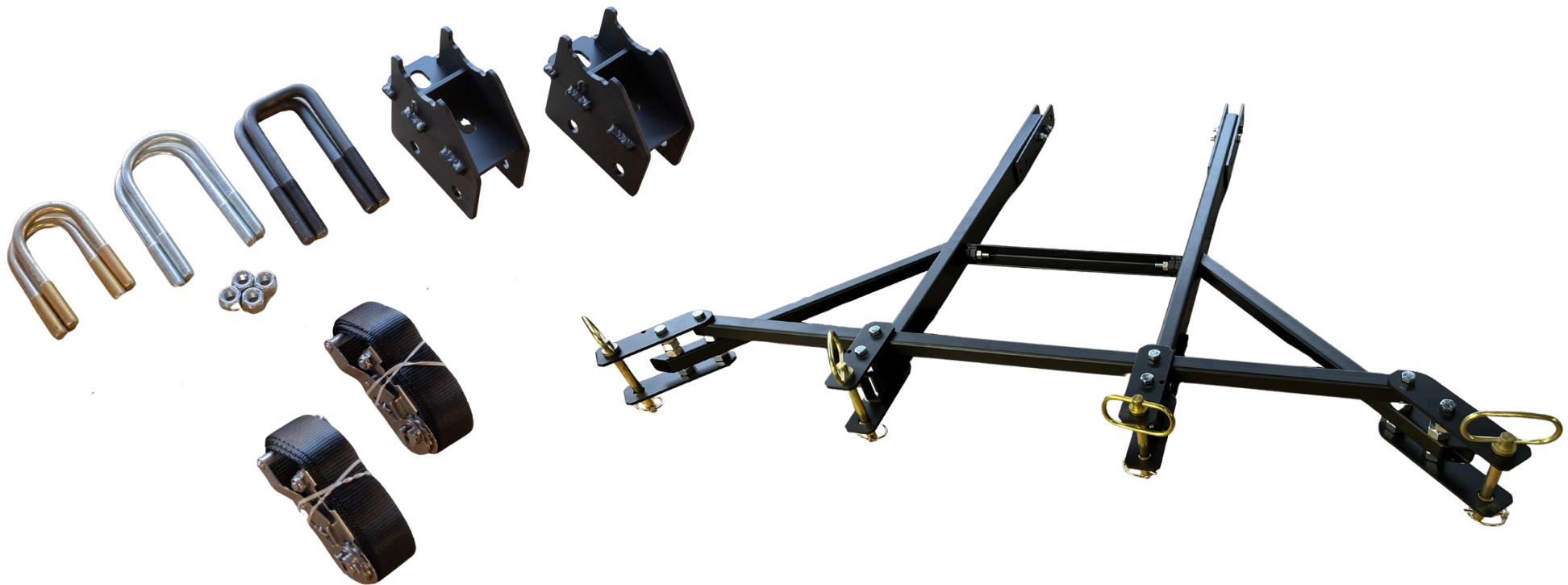
Screw in phillips screws.



04

— COMPLETE.

Step #8 - Trailer Bolt On Installation





Assemble the following:
Trailer brackets
Ratchet straps

2 x 3" 1/2" Bolts
2 x 1/2" Nylock Nuts

01 ——— 2 x 3" Square U-Bolts
2 x 2" Square U-Bolt
2 x 2 3/8" Round U-Bolt

Galvanized Nuts for U-Bolts
Light wiring bag
Wiring pig-tail
Excess wiring



Determine the size of your trailers axle and select the correct u-bolt to attach the brackets to the trailer.

02

Our Trailer Bracket is a universal fit with all pontoon trailers.

If your trailer has an axle that doesn't fall into one of these sizes, give us a call and we will figure out a fix: (313) 434 - 4314

1 3/4" Round

2" Round

2 3/8" Round

1 1/2" Square

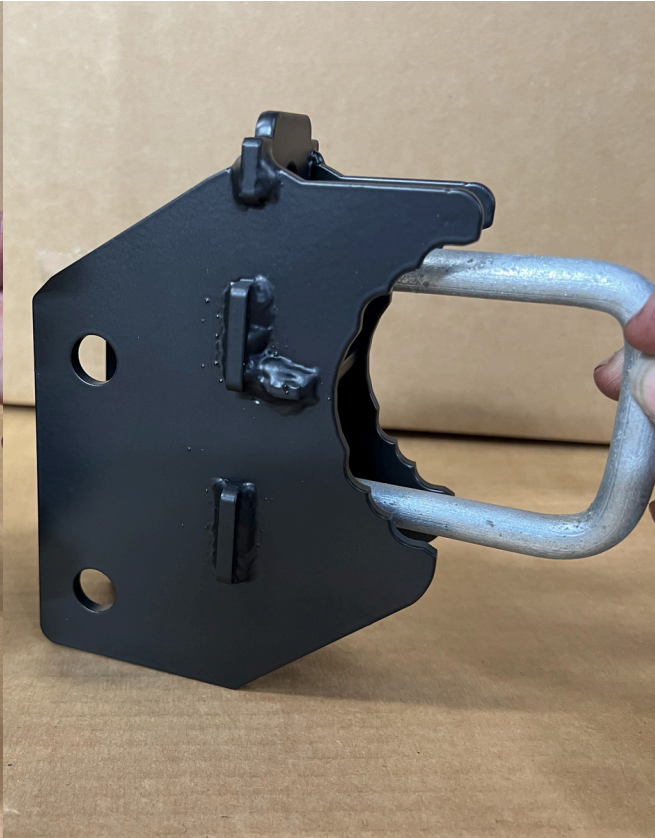
2" Square

2.5" Square

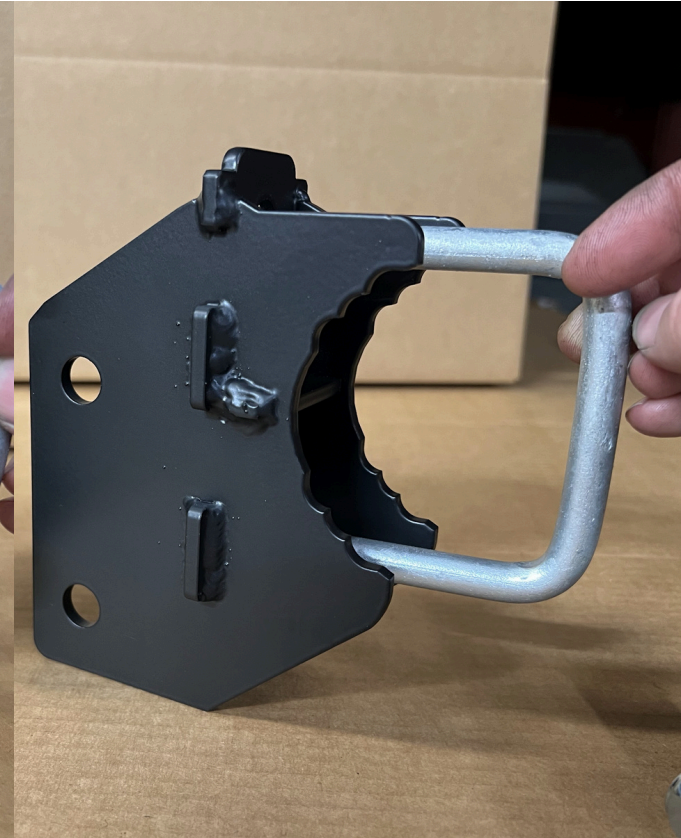
3" Rectangular



2 3/8" Round U-Bolt



2" Square U-bolt



3" Square U-bolt

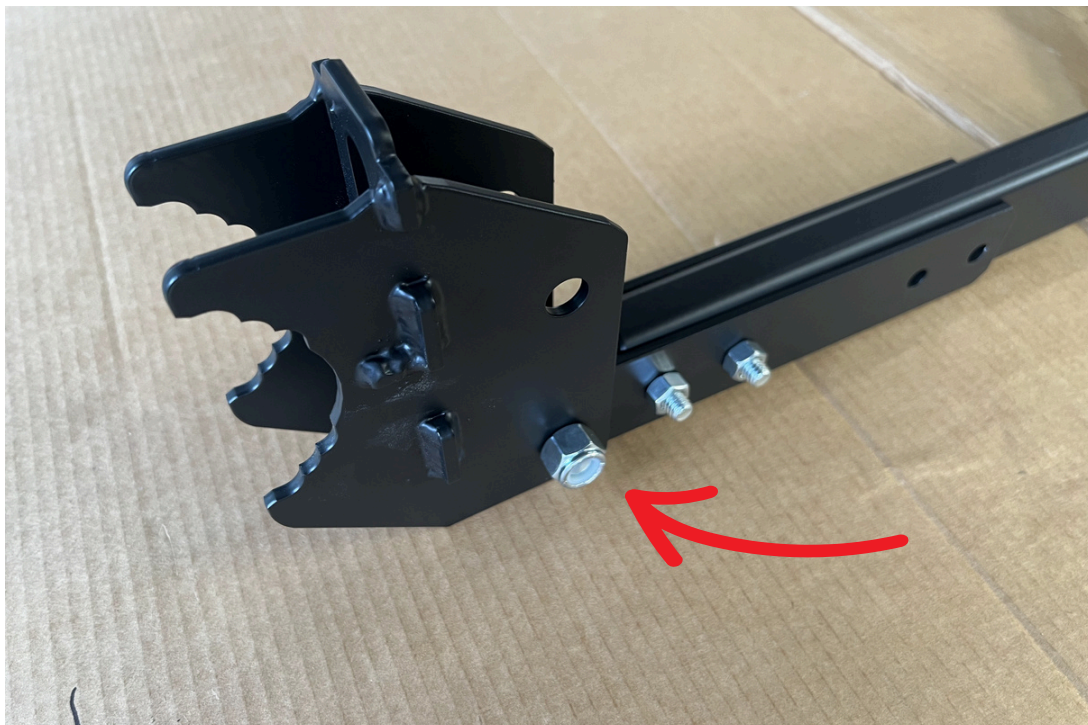


There are 2 positions on the trailer brackets.

03

You will want the one that best makes your trailer receiver sit level.

Trailer Axles vary in height,
Leaf springs Axles sit lower.
Torsion Axles sit higher.





- 04 ——— Bring the hardware & the outrigger receiver beneath your trailer to bolt on.



- 05 ——— Install pig-tail wiring harness into existing trailer wiring.
- You want the end of the pig tail to be positioned just above where the Outrigger Axle will be.

Use extra wire and hardware from light kit



06

Attach brackets to the trailer.
The spacing between the
inside in-ward face of each
bracket should be **13.75"**



07

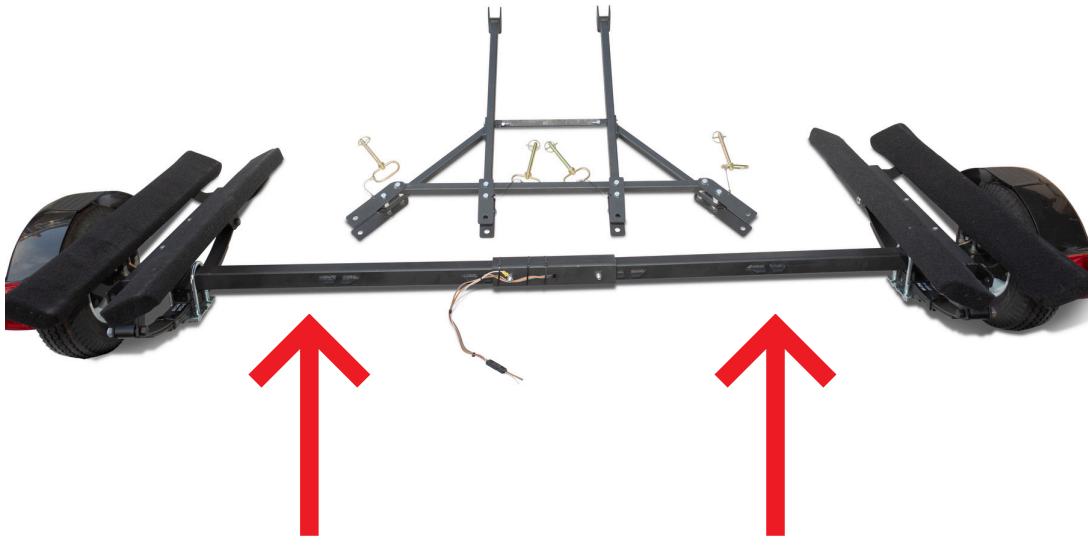
The brackets **must be centered** on the trailers axle.
Measure off the hub or rim of
your trailer as shown.



- 08 ——— Attach receiver using the
3" 1/2-13 Bolts and Nylocks
Nuts



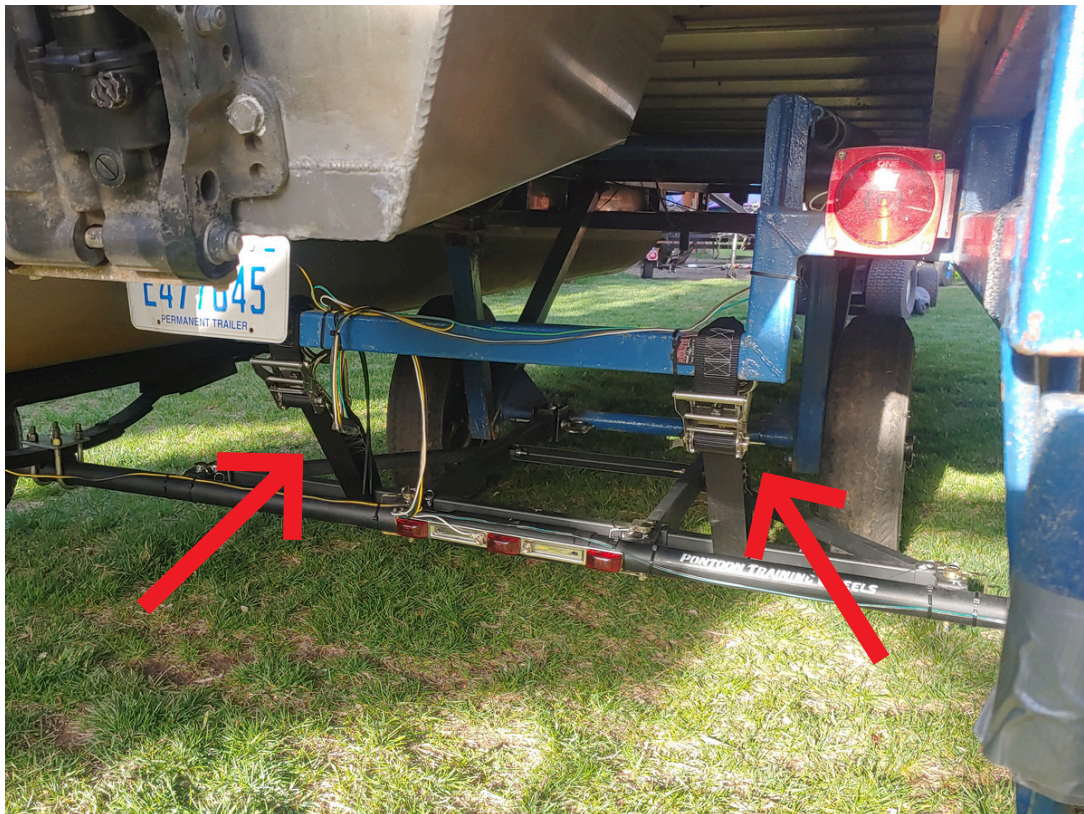
- 09 ——— Attach ratchet straps to the
trailer & receiver.
- Attach the ratchet straps to
the Trailer and Outrigger
receiver cross-bar.
- Tighten up the ratchet straps
Get the reciever floating.



- 10 — Pull the Hitch pins out of the receiver and Roll the OutRigger Underneath.



- 11 — You may need to loosen or tighten the ratchet straps to change the height of the receiver to get the JAW to line up with the Axle.



12 — Pop the pins in to lock in the OutRigger Axle and Tighten up the Ratchet straps.

Tie up any loose ratchet strap material. These will never need to be removed.

13 — See Next Page for Videos of quick Attaching and Detaching the Base OutRiggers.

13 — Complete

