



# HARLEY SPORTSTER

## 2004 & NEWER

### TRIKE CONVERSION KIT



Phone: 913.710.2225

Fax: 866.737.0818

Email: [sales@casscountychoppers.com](mailto:sales@casscountychoppers.com)

PO Box 446

Pleasant Hill, MO 64080

**CUSTOM TRIKE AND MOTORCYCLE PARTS**



We want to thank you for your purchase of a Cass County Choppers Harley-Davidson 2004 & Newer Sportster Trike Conversion Kit.

If you have questions or comments, please feel free to email or call using the contact information at the bottom of this page.

*Cass County Choppers, LLC will not be held responsible for any damage that occurs during disassembly or reassembly. If you are unsure about anything in the assembly process, please call or consult a qualified mechanic. We also offer the service of converting your bike into a trike; contact our support team for details and pricing.*

## CONTENTS

---

Sales and Return Policy .....	3
Purchase Agreement .....	3
Parts List .....	5
Assembly Instructions .....	7
Assembly Pictures.....	12



## SALES AND RETURN POLICY

---

All sales are final. If damage has occurred during transit, contact Cass County Choppers, LLC. immediately for details on processing a replacement. Any damage claims must be made within 5 calendar days of item receipt. No returns or exchanges will be provided unless a Return Authorization Request has been previously approved by Cass County Choppers, LLC. and products will be subject to a forty percent restocking fee. Any return shipping charges are the responsibility of the purchaser. If you are shipping an item over \$75, we recommend purchasing shipping insurance and/or sending with a trackable service as we don't guarantee receipt of your returned item. Cass County Choppers, LLC. is not responsible for lost or stolen packages confirmed to be delivered to the address entered for an order. Upon inquiry, Cass County Choppers, LLC. will confirm delivery to the address provided, date of delivery, tracking information and shipping carrier information for the customer to investigate.

## PURCHASE AGREEMENT

---

This Hold Harmless and Indemnification Agreement ("Agreement") is entered into by and between the customer(purchaser) hereinafter "Promisor", and Cass County Choppers, LLC., hereinafter "Promisee".

The intent of this Agreement is to indemnify Promisee from any claims arising from and related to the purchase, installation and/or use of any Cass County Choppers, LLC. product(s).

FOR VALUABLE CONSIDERATION, the receipt of which is hereby acknowledged, Promisor and Promisee agree as follows:

Promisor will indemnify and hold harmless Promisee from any and all claims, actions, and judgments, including all costs of defense and attorney's fees incurred in defending against same, arising from and related to the purchase, installation and/or use of any Cass County Choppers, LLC. product(s) either directly and/or indirectly. Promisor's actions include the acts of Promisor's agents and employees. By examining our products online, in a brochure, at the showroom, and/or in person, you have satisfied to your expectations to accept the product as-is and with any and all faults.

In the event any claim or suit is brought against Promisee within the scope of this Agreement, Promisor shall pay for legal counsel chosen by Promisee to defend against the same.

This Agreement shall encompass claims resulting from any actions that may give rise to a claim against the promise including, but not limited to:

Normal usage of the product. Normal usage defined by, but not necessarily defined in full by, a person 18 years or older being the sole pilot of a Cass County Choppers, LLC. product, not riding on state, county, city, town or village legal streets, roads, and/or highways in an improper manner.

Misuse of the product. Misuse is defined by, but not necessarily defined in full by, any person under the age of 18 operating a Cass County Choppers, LLC. product, and/or more than one (1) person on a Cass County Choppers, LLC. product at any given time, and/or not operating on public streets, roads



and/or highways, and/or operation on rough surfaces and/or in dark conditions, including fog in any way, and/or not consistent with applicable laws of governing state, and/or operation on slippery surfaces including but not limited to water, ice and/or snow covered surfaces, and/or jumping, and/or excessive speeds, and/or excessive weight, and/or standing operation, and/or one wheel operation, and/or fueling with product other than that specified by the engine Manufacturer, and/or operation on rough surfaces, and/or failure to maintain the product in a proper manner. Maintenance is the sole responsibility of the Promisor, its agents and employees.

Note: Installing any Cass County Choppers, LLC. product to your bike may affect the warranty the Manufacturer provides. Consult the manufacturer prior to installation; you accept any nullification of warranty by continuing with installation.

Any purchase, use, and/or installation of this product by the promisor, including its agents and employees is considered an agreement to the terms and conditions of this agreement and shall be construed as a signature. By signing, you signify understanding and agreement to all warnings, statements and claims presented in this document. You also signify that you are legally able to provide signature. If you are unsure about releasing any and all claims or do not wish to proceed by using or installing a Cass County Choppers, LLC product, STOP now and send the parts back. All products are custom manufactured by Cass County Choppers, LLC. All sales are final; no refunds will be given for parts and/or shipping. Replacement parts may be available based on manufacturing capabilities. Shipping time may vary; all quoted delivery dates are estimated and are subject to change.

In the event either party files suit in a court of law to interpret or to enforce the terms of this Agreement, the party prevailing in such action shall be entitled, in addition to any legal fees incurred in defending against any third party claim, to its reasonable legal fees and costs incurred in such action to interpret or to enforce the terms of this agreement. If a term or condition is found to be unenforceable, the rest of the agreement still remains in affect.

This agreement shall be interpreted under the laws of the State of Missouri.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_



## PARTS LIST

HARLEY DAVIDSON 2004 & NEWER SPORTSTER TRIKE CONVERSION KIT

ITEM	DESCRIPTION	PART NUMBER	QUANTITY
1	Sportster Right Axle 14-5/8 Inches	SP14625	1
2	Sportster Left Axle 14-5/8 Inches	SP14625	1
3	CC7100 Differential Brake Side Case	7100-BC	1
4	CC7100 Differential Drive Side Case	7100-DC	1
5	Differential Spacer	7100-SP	1
6	Differential Case Bolt	AH-516-175	6
7	Spider Pin Cap Seal	SPCS-1	4
8	¼ Lock Washer	LW-14	2
9	¼ Button Head Screw ¼ x ½ BH	BH-14-12	2
10	CC7100 Spider Pin Cap	7100-SPC	2
11	Sportster CC7100 RH Axle spacer	AS-2343	1
12	Drive Sprocket Spacer No Flange	DSS-NF	1
13	Drive sprocket Spacer Flange	DSS-FL	1
14	CC7100 Wheel Hub Nut 3/4	NT-34	2
15	Sportster CC7100 LH Axle spacer	AS-2343	1
16	Brake Rotor Spacer No Flange (1)	BRS-NF	1
17	Brake Rotor Spacer Flange (2)	BRS-FL	1
18	Brake Rotor Bolt 5/16 x 1-1/2 HH	HH-516-112	5
19	Axle Housing Slide Plate Bolt 3/8 x 1-1/4 AH	AH-38-114	16
20	Axle Bearing	6205RS	12
21	Wheel Hub 5 x 4-3/4 and 5 x 4-1/2 BP	WH-MLT	2
22	Wheel Stud ½-20	WSTD	10
23	Wheel Nut ½-20	WNUT	10
24	Wheel Hub Bearing Spacer 1 x 1/8	WHBSP	2
25	Axle Housing Bearing Spacer	AH-BS3	4
26	Axle Housing	AHL	2
27	Weather Seal Set Screw 3/8 x 1/2	SS-38-12	24
28	Wheel Hub Set Screw 3/8 x 3/4	SS-38-34	8
29	Wheel Hub Locking Set Screw 3/8 x 1/2	SS-38-12	12
30	Axle Housing Slide Plate	AHSP-RH	2



ITEM	DESCRIPTION	PART NUMBER	QUANTITY
31	Slide Plate Mounting Bolt 3/8 x 1-3/4 HH	HH-38-134	6
32	Lock Washer 3/8	LW-38	34
33	Flat Washer 3/8	FW-38	48
34	Support Bar Bolt 3/8 x 1-1/2 HH	HH-38-112	4
35	Lower Support Bar (Choppers/Trikes)	LSB-CT	1
36	Upper Support Bar (Cass County Choppers)	USB-CCC	1
37	Support Rod Bolt 3/8 x 1-1/2 HH	HH-38-112	2
38	Sportster Support Rod	SSR-34	1
39	Sportster Swingarm Pivot Spacer	SS-PS1	2
40	Drive Sprocket Bolt 7/16 x 1-3/4 HH	HH-716-134	5
41	Tensioner Bar Bolts 3/8 x 1-1/2 HH	HH-38-112	4
42	Sportster Center Block	SCB-01	1
43	Sportster Steel Pivot Plates	SSP-PLT	2
44	Tensioner Bolt 3/8 x 3 TPHH	TPHH-38-3	2
45	2004-Newer Sportster Pivot Bushings	SPB-4UP	2
46	Sportster Right Side Plate	SRS-PLT	1
47	Sportster Shock Bolt 1/2 -20 x 1-1/2 HH	HH-12F-112	2
48	Sportster Left Side Plate	SLS-PLT	1
49	Pivot Plate Bolt 3/8 x 4 HH	HH-38-4	16
50	Belt Tension Bar	BTT-SPT	2
51	Exhaust Spacer 3/4 x 3/4	ES-34-34	1
52	Exhaust Spacer Bolt 5/16 x 1-3/4 HH	HH-516-134	1
53	Exhaust Spacer Nut	NT-14	1
54	Exhaust Spacer Washer 1/4 Flat Washer	FW-14	2
55	Exhaust Spacer Washer 5/16 Lock Washer	LW-516	1
57	Banjo Bolt 12mm x 10mm	BB-12-10	1
58	Upper Shock Spacers 1-1/4 x 1	USS-114-1	1
59	Upper Shock Bolt 1/2 x 3 HH	HH-12-3	1
60	Caliper Bracket Bolt 3/8 x 1-1/4 AH	AH-38-114	2
61	Caliper Bracket	WWCB01	1
62	Caliper Wilwood	120-7740-P	1
63	Caliper Washer 3/8 SAE FW	FW-38-SAE	2
64	Caliper Mount Bolt 3/8 x 1-1/4 HH	HH-38-114	2



# ASSEMBLY INSTRUCTIONS

---

HARLEY DAVIDSON 2004 & NEWER SPORTSTER TRIKE CONVERSION KIT

*Cass County Choppers, LLC will not be held responsible for any damage that occurs during disassembly or reassembly. If you are unsure about anything in the assembly process please call or consult a qualified mechanic. We also offer the service of converting your bike into a trike call for details and pricing.*

---

**ASSEMBLY TIP:** *Clean off a workbench and lay ALL parts out onto workbench. Place fasteners with each corresponding part using the parts list as a guide. Some fasteners may be not bagged together with parts in some kits for ease of shipment. Take time to measure and separate fasteners before beginning assembly to avoid using incorrect bolts, etc. Read ENTIRE installation instruction booklet before beginning assembly. You will gain a better understanding of the entire process and assembly time will be GREATLY reduced.*

---

## **Step 1:**

Secure your bike using a front wheel vise and straps. A qualified motorcycle lift is recommended.

## **Step 2:**

Remove heat shield from exhaust if present.

## **Step 3:**

Remove exhaust system including the Exhaust support bracket.

## **Step 4:**

Set exhaust system aside making sure to keep all bolts, flanges, and exhaust gaskets together.

## **Step 5:**

Break loose the rear axle nut, BUT DO NOT REMOVE AT THIS TIME. Raise the rear end of bike using a center jack. (Bike front wheel securely in wheel vise or equivalent.)

## **Step 6:**

Remove rear axle nut, and slide rear axle out of wheel, remove wheel, caliper, lower shock mounting bolts, and then remove the swingarm assembly from bike. (Follow instructions in a maintenance Manual for your model year bike.) . Leave lower shock mounting bolts in shocks. Remove splashguard. Place swingarm pivot bolts next to bike one on each side so they are readily available when mounting the trike conversion kit.

## **Step 7:**

Remove the brake rotor by securing wheel and removing bolts holding brake rotor to wheel. Then remove the sprocket from wheel, by securing the wheel and removing the bolts holding sprocket to wheel.

**Step 8: YOU WILL NEED HELP DURING THIS STEP! DO NOT ATTEMPT TO DO THESE STEPS ALONE!**



Lift the trike assembly out of the box and place behind the motorcycle with the swingarm pivots facing towards the bike and brake caliper on correct side. Cut wire ties holding the swingarm pivot bolt bushings in the swingarm pivots. (See Pic #1) Leave bushings in the swingarm pivots.

**Step 9:**

Lift the trike conversion kit up and slide into place where original swingarm was secured to frame. Have your helper install one of the swingarm pivot bolts through the swingarm pivot bolt bushings, through the swingarm pivots and thread into frame but do not tighten at this time. You can then install the second pivot bolt in like manner.

**Step 10:**

While holding the trike conversion kit in the correct position, install the lower shock mounting bolt on the left side of trike be sure to place 1 shock spacer between the shock and the side plate. Trike conversion should be held in place by shock. Rest for a minute!

**Step 11:**

Remove the 8 – 3/8 x 4 HH bolts and 1 – 3/8 x 1-1/2 HH bolt shown in picture #2 from RIGHT SIDE ONLY! Place them directly below trike conversion kit so they will be readily accessible. Then remove the ¾ nut from the end of BOTH wheel hubs shown in picture #3. Place them below wheel hub. Remove 2 – 3/8 x 1-1/2 HH bolts and 2 – 3/8 x 2-1/4 HH bolts holding rear support bars in place shown in Picture #4. Place directly below trike kit.

**Step 12:**

Remove right side wheel hub by pulling it from the right side differential axle. Remove left side wheel hub in same manner. (CAUTION DO NOT LOSE WHEEL HUB BEARING SPACER THAT IS BEHIND WHEEL HUB.) Set aside for now.

**Step 13:**

Pull right side plate and axle housing as an assembly from right side of trike kit. Be careful pivot plate spacer on front of swingarm does not fall and get damaged. Set aside. Remove the right hand pivot bolt and carefully remove right side pivot plate. DO NOT LOSE BUSHING! The pivot plates must be painted to avoid rust and decay. Rough up finish with sand paper and paint with desired color. Once paint is dry on swingarm pivot, fit the pivot into the center block. Only one of the 2 tabs will fit into the slot of the center block. Make sure that tab is towards the block. Hold swingarm pivot against the frame and slide the original pivot bolt through swingarm pivot bushings provided and into frame. DO NOT FORCE PIVOT INTO CENTER BLOCK!

**Step 14:**

Remove the differential assembly by pulling out of left side axle housing. CAUTION DO NOT LOSE AXLE BEARING SPACERS THAT ARE ON AXLES. Have your helper hold the differential and install the brake rotor to brake side of differential using the 5/16 screws, 5/16 lock washers, flat washers, and Brake Rotor Spacers provided on the differential. Remove 5 – 5/16 bolts and washers, CAUTION keep them together. Slide brake rotor over axle and over flange on differential assembly. Re-install 5/16 bolts and washers. Make sure step of Brake Rotor Washer goes into brake rotor. Once the brake rotor is installed carefully slide the left axle of differential through the drive belt and bearings on the left axle housing





CAREFULLY! Make sure axle spacer is still on the axle BEFORE this step. BE CAREFUL not to damage bearings in axle housing assembly.

**Step 14:**

Install the sprocket to the right side of differential using bolts provided on Differential. Install the drive belt over sprocket while assembling on differential at this time. Torque the bolts to proper specs, see maintenance manual. (Caution: for some models you may need to use the additional spacer to line up belt with the front pulley, if you model does not need the additional spacer set aside.)

**Step 15:**

Place the remaining aluminum Pivot Plate Spacer over tab on right side of right Swingarm Pivot. The tab on the Pivot Plate Spacer will be to the right and rounded edges to the front of trike. Slide the Right Side Plate/axle housing assembly over right axle (make sure axle spacer is on axle) lock slot into the Pivot Plate Spacer by making sure tab lines up with slot. Install 8 – 3/8 x 4 HH bolts with 1 - lock washer and 2 flat washers on each bolt. Install 1 – 3/8 x 1-1/2 HH bolt through Right Side Plate and into Support Rod. Snug bolts but do not tighten at this time!

**Step 16:**

Replace the right side lower shock mounting bolt using spacer just like the left side. You may need to use a spacer and longer bolt on the top of the shock to line it up correctly.

**Step 17:**

Re-install 2 – 3/8 x 1-1/2 HH bolts and 2 – 3/8 x 2-1/4 HH bolts to secure rear support bars and tension bar on right side.

**Step 18:**

Adjust belt tension by loosening the 6 – 3/8 bolts holding slide plate to side plate on each side. Slide Axle Housing ALL the way to the front make sure belt is lined up and straight then pull the axle to the back. Adjust belt tension by using nut on back of tension bar shown in picture #4. Final adjustment will be done in a later step.

Make sure the rear sprocket lines up correctly with the front sprocket. If not correct the problem and reinstall.

**Step 19:**

Install the wheel hubs onto trike assembly by placing 1/8 aluminum wheel hub spacer over axle on left side, then slide wheel hub onto axle and reinstall the 3/4 nut. The wheel hubs have bolt patterns clearly marked; 5 x 4-3/4 pattern is marked with a “-----.” The 5 x 4-1/2 is marked with an “o.” Make sure you install the studs in the correct bolt pattern for the wheels you are going to use. See additional sheet for detail on installing wheel studs. Repeat for Right side.

**Step 20:**

Tighten ALL bolts on the entire trike conversion assembly using Loctite or equivalent on ANY bolt that does not have a lock washer on it. Periodically check these bolts and re-tighten if necessary.



**Step 21:**

**DO NOT FILL DIFFERENTIAL WITH OIL IT HAS BEEN PRE-FILLED! WE USE SAE75W-90 SYNTHETIC GEAR OIL. 1/8 CUP OF OIL ONLY, DO NOT OVERFILL!**

**Step 22:**

You will use the original brake line bolted to the brake caliper included with trike conversion assembly. The brake line must be installed on caliper and bled properly to function correctly. Install Caliper onto Sliding Caliper Mounting Plate using 2 – 3/8 x 1-1/4 HH bolts, Lock washer, and flat washer. Caliper overhangs front of Caliper Mounting Plate with open side of caliper towards Caliper Mounting Plate. Install caliper assembly over inside of left side plate. Line up with slots and over rotor. Thread 2 - 3/8 x 1-1/4 Allen Head bolts with 1 – lock washer, and 2 – flat washers on each bolt through slots on Left Side Plate. This may be installed on the trike kit already. You may need to loosen brake line so it will not interfere with normal motion of trike swingarm and re-tighten. Bleed brakes as per maintenance manual.

**Step 23:**

Loosen the bolts holding Axle Housing Slide Plates to Side Plates. Using right side belt tensioner nut tighten belt to desired tension. Re-Adjust the brake caliper over brake rotor making sure it is connecting with the rotor the full amount of width on brake pads. Repeat for left side. Measure between the tensioner mount and the axle adjustment plate on each side. These should be close to the same dimension.

**Step 24:**

Tighten set screws in wheel hubs. It works best to remove all 6 locking setscrews (3/8 x 1/2) that are in the top of each threaded hole in wheel hub housing and loosen but do not remove lower 6 set screws in bottom of each threaded hole in the wheel hub housing. Tighten the 3/4 inch nuts provided locking the wheel hub to axle using Loctite. Re-tighten all 6 setscrews one at a time in bottom of each hole securely. Then install the locking setscrew in all 6 holes using Loctite tightening each one securely. You must use Loctite on locking setscrews ONLY. **FAILURE TO INSTALL CORRECTLY CAN CAUSE INJURY OR DEATH FROM WHEEL FAILURE.** Repeat process for opposite side. **Check these before riding, before each use.**

**Step 25:**

Install wheels and tighten to proper specs.

**Step 26:**

Refer to steel or fiberglass fender-mounting instructions for mounting fenders. Then send out to paint shop of your choice. Use care when re-installing painted fenders.

**Step 27:**

Reinstall the exhaust system while bike is resting on wheels and tires. Use care when re-installing exhaust system on engine. Make sure all gaskets and brackets are lined up before tightening screws. Damage to engine can occur if not installed correctly. This is NOT covered under warranty. Use exhaust spacer provided with bolt provided. Install the spacer on the rear exhaust bracket and then use original screw through exhaust pipe and into threaded spacer. Check to see if your exhaust system interferes



with the trike conversion assembly. If it does you may need to purchase a different exhaust system. We do not guarantee that your exhaust system will work.

**Step 28:**

Test bike while still on stand to make sure all steps are completed and bike is functioning properly. Spin trike kit by hand, be careful to avoid pinch points. Rear wheels should spin freely and belt should be straight between front and rear sprocket.

**Step 29:**

This instruction sheet is designed as a guide. You may need to complete additional steps not listed here. These are not omitted on purpose but you must use common sense when installing parts on your bike. Inspect all aspects of installation and make sure every step is completed to ensure your safety before testing trike. Test trike slowly and close to home to make sure all steps are completed and the installation is complete.

**Step 30:**

Start out slowly when test-driving. Re-check tightness of screws after first use, after 100 miles and periodically every 250 miles.

*ENJOY YOUR NEW TRIKE.*



# ASSEMBLY PICTURES

---

HARLEY DAVIDSON 2004 & NEWER SPORTSTER TRIKE CONVERSION KIT



Assembly Picture #1



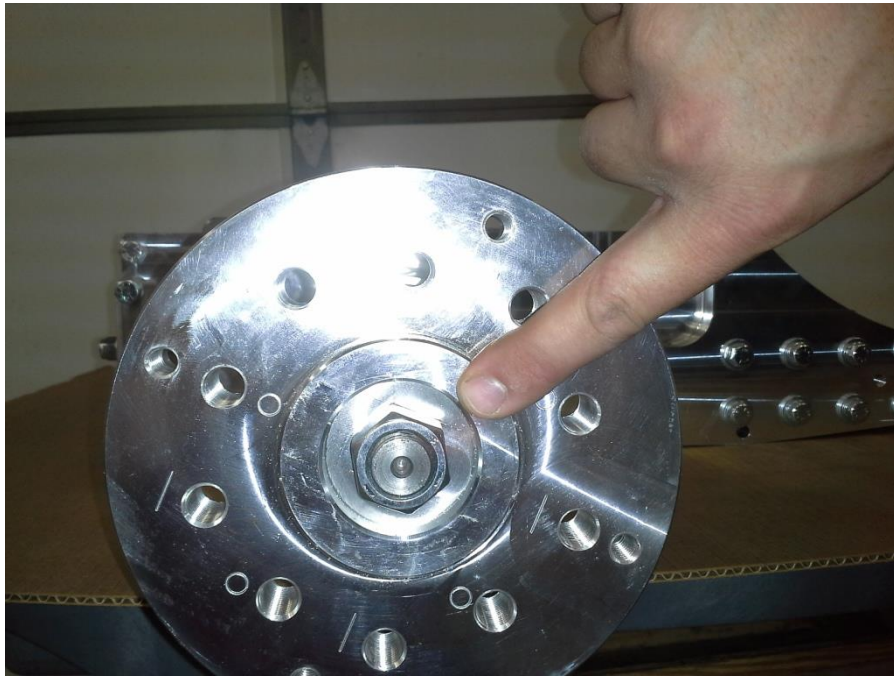
Assembly Picture #2

---

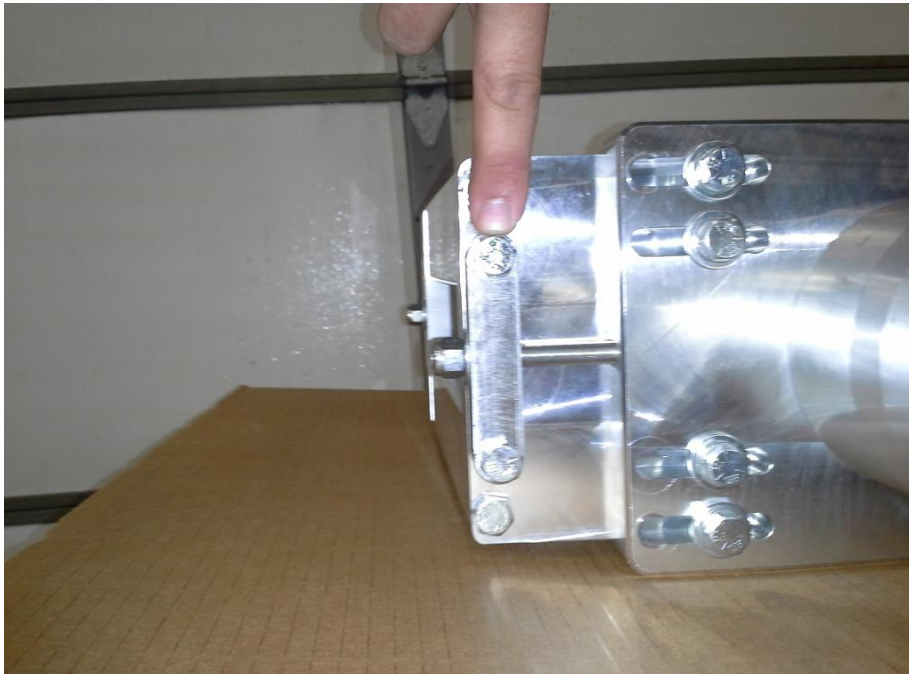
Cass County Choppers  
19420 S Raffurty Road  
Pleasant Hill, MO 64080



913.710.2225  
sales@casscountychoppers.com  
www.casscountychoppers.com



Assembly Picture #3



Assembly Picture #4

