

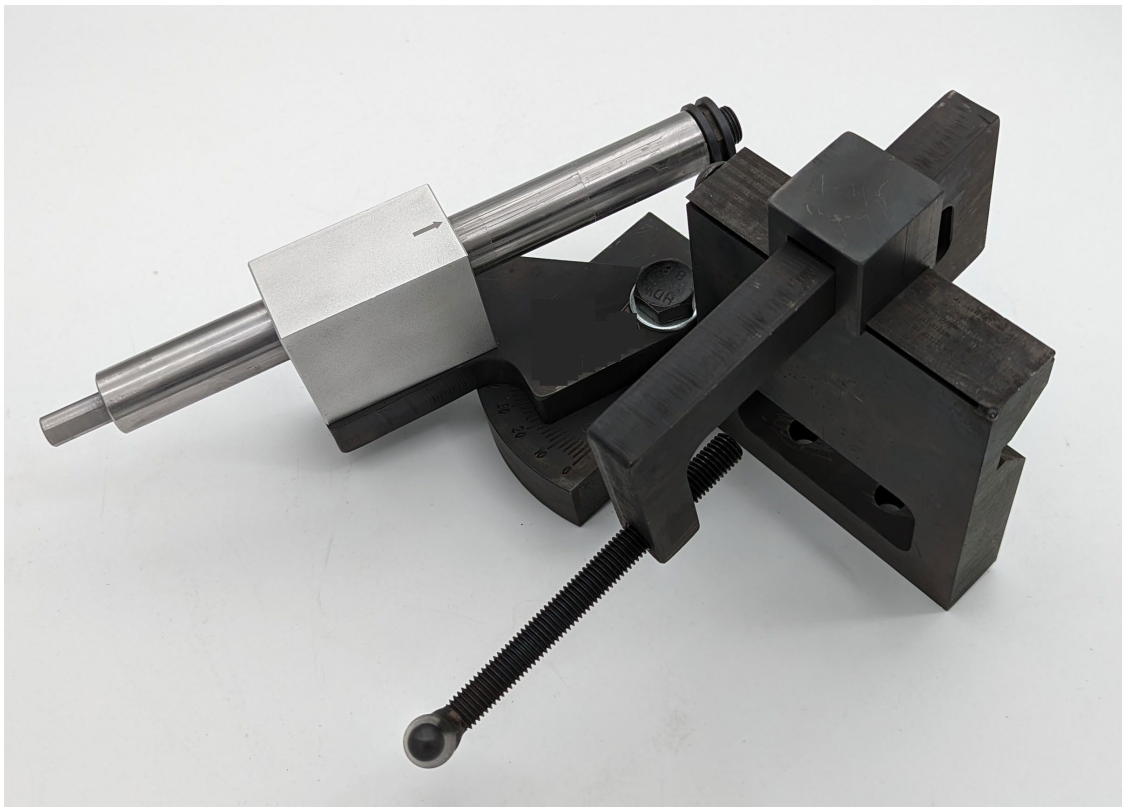


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## **GRANATELLI MOTOR SPORTS® TUBING & PIPE NOTCHER HOLE SAW**

**Part # 540110**



### **Features & Benefits:**

- Bolts to a Work Bench or Clamps in Your Vise
- Notches Tubing from 3/4" to 3.0" Diameter from 0° to 50° Angles
- Includes a Threaded Chuck to Accept Standard Thread Hole Saws
- Needle Bearings Allow Drilling Shaft to Slide Effortlessly In & Out of Tubing to Produce Perfect, Repeatable Cuts (Notches)

### **Special Notes & Precautions:**

- Make Sure All Mating Surfaces, Metal to Metal and Threaded Holes Are Liberally Lubricated to Avoid Galling and Binding.
- The Same Can Be Said for Storing When Not in Use. Keep Lubricated.
- ALWAYS Lubricate Your Hole Saw Each Time Before Cutting Notches with Cutting Oil.  
This avoids dulling of the hole saws
- Whenever Using Electric or Pneumatic Drill Motors or Other Machining Equipment, Use Standard Safety Rules Like Wearing Safety Glasses and Gloves. Keep Loose Clothing Away from Moving Parts.
- Never Expose This Device to Moisture. Steel Rusts
- This Device is Very Dangerous. Keep Away from Children!
- Always Confirm None of the Moving Parts Are in Bind, They should All Move Freely

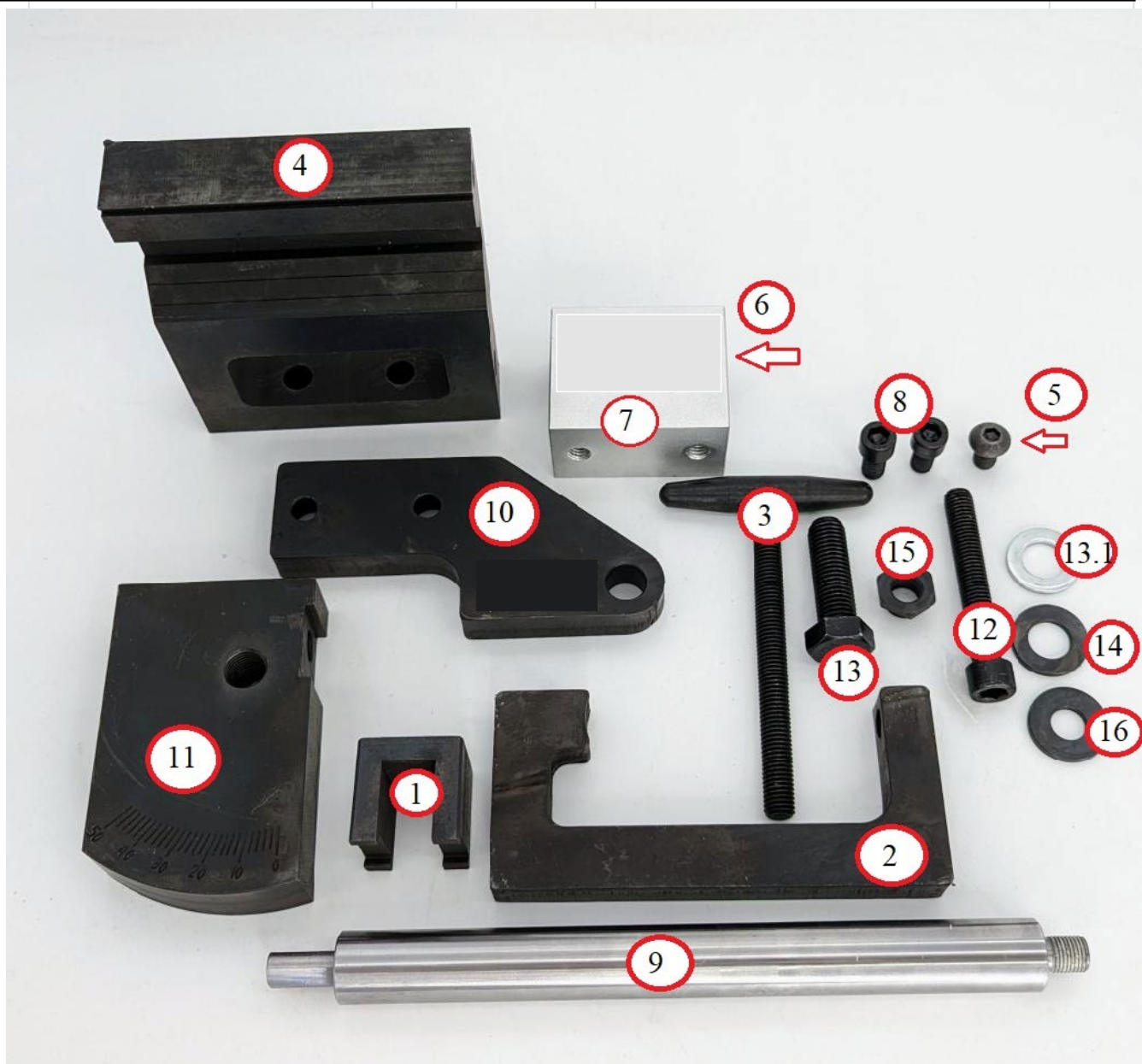
**Please read these instructions in their entirety. There are several key points that are made throughout the Installation / Operations / Assembly Instructions that should be met.**

## Bill of Materials

### Granatelli Motor Sports® TUBING & PIPE NOTCHER HOLE SAW

#### 540110 - Bill of Materials

Item No.	Description	Qty	Item No.	Description	Qty
1	Slider - Tubing Clamp	1	2	Tubing Clamp	1
3	Threaded T-Handle	1	4	Main Tubing Structure - Holder	1
5	Bolt M10 x 16 - Slider Stop	1	6	Needle Bearings (Part #HK2525)	2
7	Bearing Block	1	8	Bolt M10 x 25 - Bearing Cap Screws	2
9	Plunge Shaft, 9.5"	1	10	Arc Plate Guide	1
11	Arc Plate (Angle Plate)	1	12	Bolt M14 x 50 - Cap Screw. Holds #10 to #11	1
13	Bolt M12 x 75 For Arc Plate	1	14	1/2" SAE Washer - Plunge Shaft	1
15	Hole Saw Adapter	1	16	Hole Saw Adapter Washer	1



## Assembling Your Machine

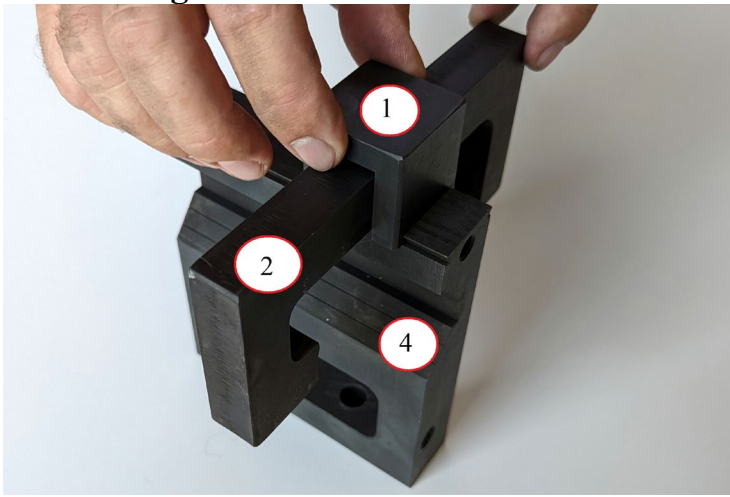


Fig 1

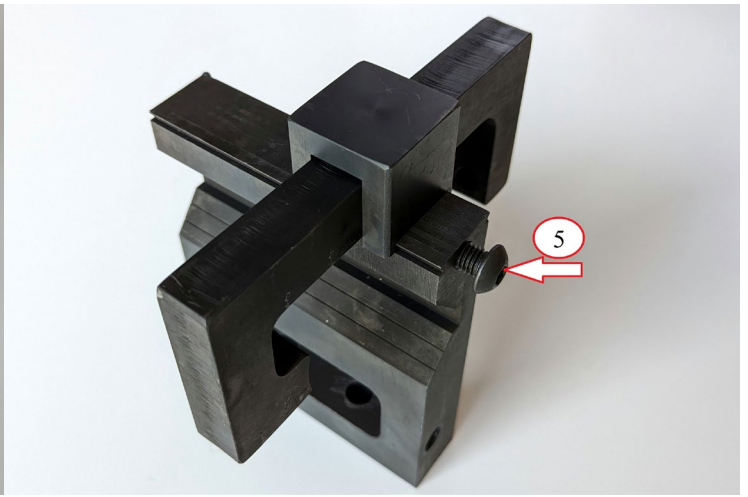


Fig 2

Place #1, the slider, over #2, the tubing clamp and then mate the grooves as a group over #4, the main tubing structure - (Fig 1)

Install #5, M10 x 16 bolt, slider stop into the end of the main tubing structure. – (Fig 2)

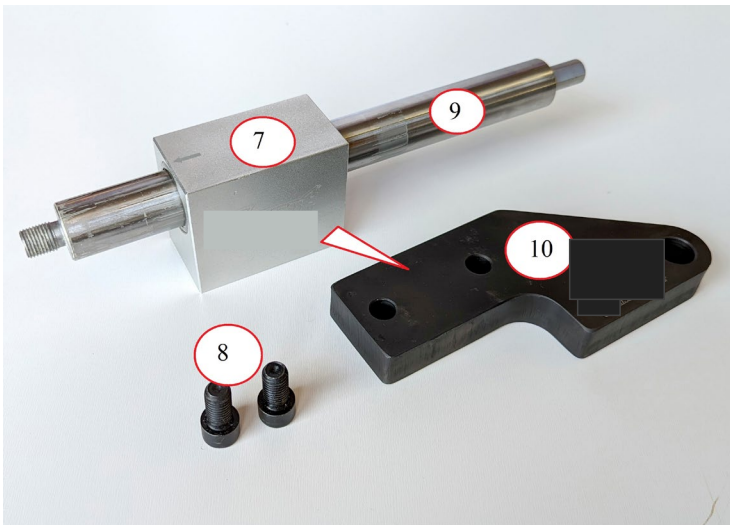


Fig 3

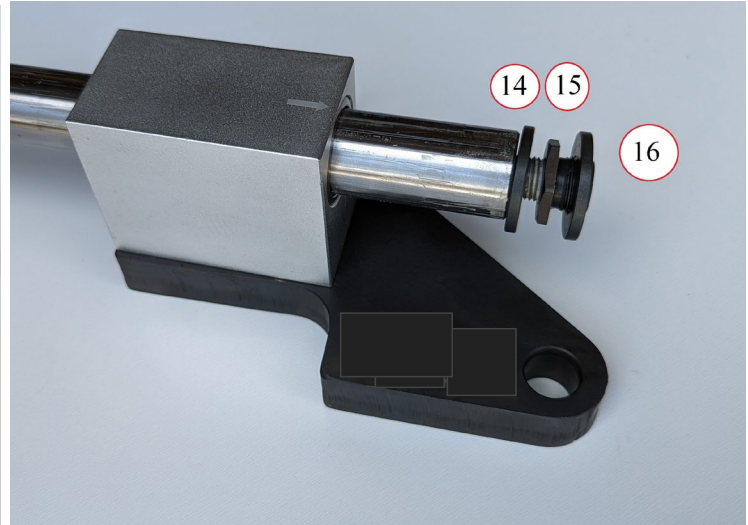


Fig 4

Insert #9, the plunge shaft into #7, the bearing block, then place the assembly onto #10, the arc plate guide and capture with the two bolts #8, M10 x 25, bearing block screws. Tighten bolts. – (Fig 3)

Install the #14, 1/2" plunge shaft washer onto the threaded end of the #9 plunge shaft. Next, thread the #15 hole saw adaptor onto the threaded end of #9 capturing the #14 1/2" flat washer. Finally, insert the #16 flat washer in-between your desired hole saw (not supplied) and the #1 hole saw adaptor. – (Fig 4)

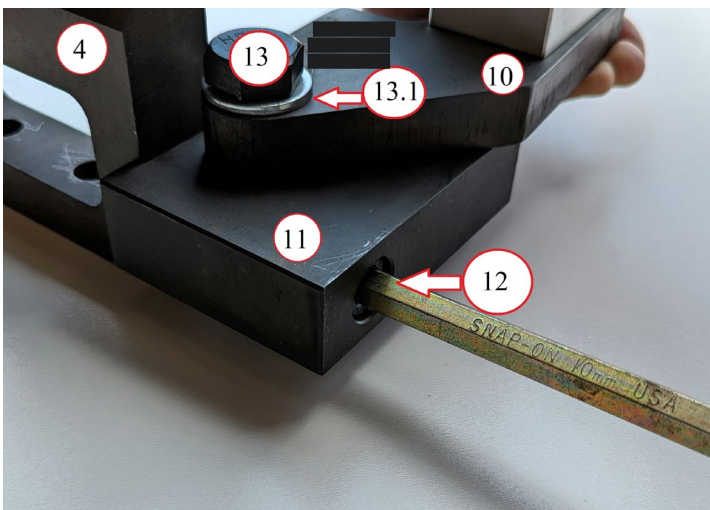


Fig 5

Using the #13, M12 x 75 Bolt and #13.1 M12 flat washer, affix the #10 arc plate guide to the #11 arc plate. Attach the assembled unit to the #4, main tubing structure using the #12, M14 x 50 cap screw and tighten– (Fig 5)



## Final Notes & Precautions Before Operation:

- Mount Notcher in a Vise or Mount Directly to a Work Bench. Your Machine MUST BE Hard Mounted Prior to Notching to Avoid Bodily Injury.
  - You may use a C-clamp to capture the part to the bench
  - You can install bolts (not included) through the two ½” bolt holes, capturing your device directly to the bench
- Make Sure Your #14 SAE Washer is installed on the #9 Plunge Shaft Prior to Installing Your #15 Hole Saw Adapter. It Acts as a Seal While Also Preventing the Plunge Shafter from Going Too Deep into the #7 Bearing Block.
- Make Sure ALL Mating Surfaces “Metal to Metal” & Threaded Holes and Bolts are liberally Lubricated to Avoid Galling or Binding of the Parts.
- ALWAYS Lubricate Your Hole Saw Each Time Before Cutting / Notches with Cutting Oil.  
This avoids binding dulling of the hole saws
- Before Notching, Confirm Your Spindle and Bearing Block Center your Hole Saw in the Pipe.

## Operation:

Your #9 Plunge Shaft has 3 unique flats machine on the drill side. It is intended for use with a ½” drill chuck pneumatic or electric hand drill.

Your notcher is intended to notch ¾” to 3.0” tubing. Clamp your tube in the notcher and make sure your #3 Threaded “T” Handled securely holds your tubing flat and true in the “V” groove of the #4 Main Tubing Structure. If your tubing is long, make sure it is slightly support on the long end to avoid extra strain on the clamp and the dive holding your base of the machine.

The Clamp should be slid to a point where it is a close as possible to the side of the cutter without interfering with the travel of the cutting plunger.

Rotate your notcher block and shaft to the desired cutting angle.

As you begin notching, your hole saw should remain centered to always make clean, repeatable cuts.

The notcher saw should just kiss to the end of the center of the tube end

Sometimes when notching steep angles, you may bottom out the hole saw if it not deep enough. If this occurs, simply retract the hole saw and bend the cut “junk end: portion of the tube you are notching out of the path of the saw so that you may continue.

Cutting should be smooth and steady. Pushing too hard can result in binding the hole saw in to pipe. Patience is a virtue when notching.

**REMEMBER** - a lubricated (OILED) saw blade will cut true, not wobble and last longer.

It is imperative that you focus when cutting and not force the matter. If doing so, you can put the cutter into to bind and the drill can easily kickback causing injury!

As mentioned on page 1, keep loose clothes, hair and jewelry out of the path of your cutting saw.

Practice makes perfect.

## Cleaning Instructions:

- Always keep your notcher debris free.
- After every cutting session, be minding your machine needs to be lubricated and not left in moist areas.

**Thank you for your business**