



**SAFETY TAB INSTALLATION MANUAL**

**REVISION 0**

**8/28/2023**

# Hull Marine Products

## Foreword:

Thank you for purchasing a Hull Marine Products kit for your Atlas Micro Jack Plate. Please keep in mind that you are modifying another company's product and the addition of these products will likely void your warranty. Our purpose in selling this product is to prolong the life of your jack plate in addition to making it perform better, all while decreasing the likelihood of failure. These products have been proven to increase the stability of the plate and help prevent failure. With that said, please proceed at your own risk. We can warranty our own products themselves against defects in craftsmanship but cannot cover your TH Marine Products. Most importantly, removing the engine from the boat, or installing these components with the engine installed are risky procedures – proceed at your own risk.

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## Tools Required:

- Wrenches
- Hammer
- Torque Wrench – not required but recommended
- Various picks – not required but recommended
- Flathead Screwdriver
- File

## Preparation:

1. Engine removal is highly recommended; however, it is possible to install the safety tabs without removing the engine. In doing so, ensure that you are following the directions exactly as stated to ensure your outboard engine does not fall from the transom of your boat.
2. It will be easiest to install this kit by removing the actuator from the jack plate (NOTE: It is extremely likely that any actuators that have seen more than a few months in salt water will require the top bolt and spacers be cut out and removed, likely with a hydraulic press). To remove the actuator, remove the roll pin at the bottom of the actuator extension tube with a punch and hammer, and remove the long ½"-13 x 9.5" bolt and spacers from the top of the actuator. Carefully remove the actuator from the jack plate and set aside.
3. If you are installing the Safety Tab kit with upgraded C954 bearings, it will likely be necessary to clean up the deformed metal surfaces on the inside and outside of the engine brackets. It is possible to do with the motor on the bracket but recommended to remove the engine and remove the bracket to do so. Please see the note below this procedure to address the deformed/rolled metal. If the brackets do not have any deformation, proceed with the following steps.

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### Installation with existing HMP Micro Reinforcement Bracket:

1. Please reference the MJRK Installation Instructions for the process of installing safety tabs with the MJRK. This setup is also known as the “Ultimate Reinforcement Kit”.

### Installation with C954 Bearings, without existing MJRK:

1. Place a wooden block under the skeg of the outboard motor and carefully trim down to take the weight of the outboard. Do not jack up the boat with the trim. Alternatively, a hoist or cherry picker may be used if available.
2. **CAUTION: Perform work on only one side of the jack plate at a time**
3. Use a form of adhesive or sealant to affix the Delrin spacers to the respective positions on the transom side of the Safety tab. They will be labeled A or B and will match up, face-to-face.
4. Remove nut and bolt mounting the top of the jack plate to the transom. The bolt only needs to be removed far enough so that the tip is flush with the exterior surface of the Atlas Micro’s transom bracket
5. **CAUTION: Perform the following steps on only ONE of the slide bolts at a time**
  - a. Break the locknut on the inside of the jack plate loose.
  - b. Loosen and remove the ½”-13 Cap Screw – discard and utilize the provided screw moving forward.
  - c. If replacing the bearings, remove the existing bearings and thrust washers. Replace with the C954 Bearings as shown in Figure 1 below.
  - d. Insert the ½”-13 threaded stud and fully thread into the transom bracket by hand
  - e. It is not necessary to install the thin Nylock nut at this time.

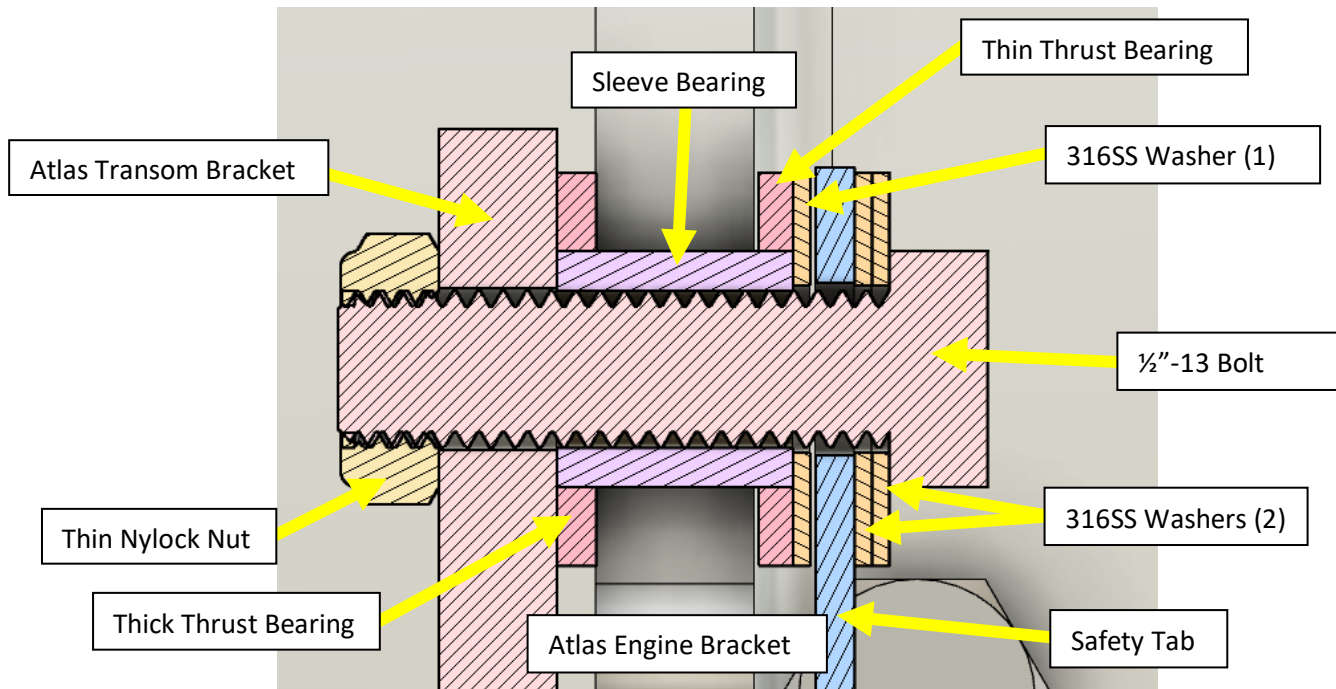


Figure 1 - Bearing Washer Section View w/o MJRK

6. Repeat Step 5 for the other slide bolt on the same side of the engine.

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7. Ensure there is one washer on each stud, outside of the outer thin thrust washer (Noted “316 SS Washer (1)” in Figure 1).
8. Slide the respective safety tab over the two studs.
9. Slide the transom bracket bolt back through the jack plate bracket and safety tab bracket. Replace the original washer and nut. Hand tighten.
10. **CAUTION: Perform the following steps on only ONE of the slide bolts at a time.**
  - a. Remove the stud, taking care to prohibit bearings and washers from falling out of place.
  - b. Place two washers on the provided ½”-13 x 1.75 Cap Screw (Noted “316SS Washers (2)” in Figure 1) then insert through the safety tab and through the washer and bearings.
  - c. Thread the ½” bolt into the transom bracket until the tip is flush with the inside of the bracket
  - d. Place a new, thin Nylock nut into position and continue threading the ½” bolt through the transom bracket and into the Nylock nut.
  - e. Thread the bolt down hand tight.
11. Repeat Step 10 for the other slide bolt
12. Look over the bearings and washers to ensure they are tightened and concentric. The sleeve bearing must sit inside of the ID of both thrust bearings to operate properly. Bearings and washers that are not seated will cause issues with performance.
13. Look over the safety tab to ensure there are no gaps between mating surfaces or bending of any of the flat sections.
14. Tighten the two Slide Bolts to 45 ft-lbs. If the threads on the transom bracket are damaged or non-existent, it will be unlikely to achieve 45 ft-lbs., which is acceptable.
15. Tighten the two thin Nylock nuts on each slide bolt wrench tight. It will be necessary to hold the ½” slide bolts tight to prevent them from backing out.
16. Tighten the transom bolt and nut to 45 ft-lbs.
17. Repeat this procedure for the other side.

**NOTE:** If the brackets have rolled metal and deformation, after removing the slide bolts and bearings from each location, carefully use a file to remove the rolled metal such that the inside and outside surfaces of the engine brackets are a flat plane. Jack plates that have seen heavy use may have intense protrusions toward the thrust bearing surface. If this process is not performed, the jack plate will likely bind, or you may damage the thrust bearings on initial use.

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### Installation without Micro Reinforcement Kit, utilizing OEM TH Marine Bearings:

1. Place a wooden block under the skeg of the outboard motor and carefully trim down to take the weight of the outboard. Do not jack up the boat with the trim. Alternatively, a hoist or cherry picker may be used if available.
2. **CAUTION: Perform work on only one side of the jack plate at a time**
3. Use a form of adhesive or sealant to affix the Delrin spacers to the respective positions on the transom side of the Safety tab. They will be labeled A or B and will match up, face-to-face.
4. Remove nut and bolt mounting the top of the jack plate to the transom. The bolt only needs to be removed far enough so that the tip is flush with the exterior surface of the Atlas Micro's transom bracket
5. **CAUTION: Perform the following steps on only ONE of the slide bolts at a time**
  - a. Break the locknut on the inside of the jack plate loose.
  - a. Loosen and remove the ½"-13 Cap Screw – discard and utilize the provided screw moving forward.
  - b. Take care to keep the OEM bearings in place, and immediately insert the provided carbon steel (black oxide coated) stud in through the existing bearings
  - c. Fully thread the ½"-13 stud into the transom bracket by hand
  - d. It is not necessary to install the thin Nylock nut at this time.

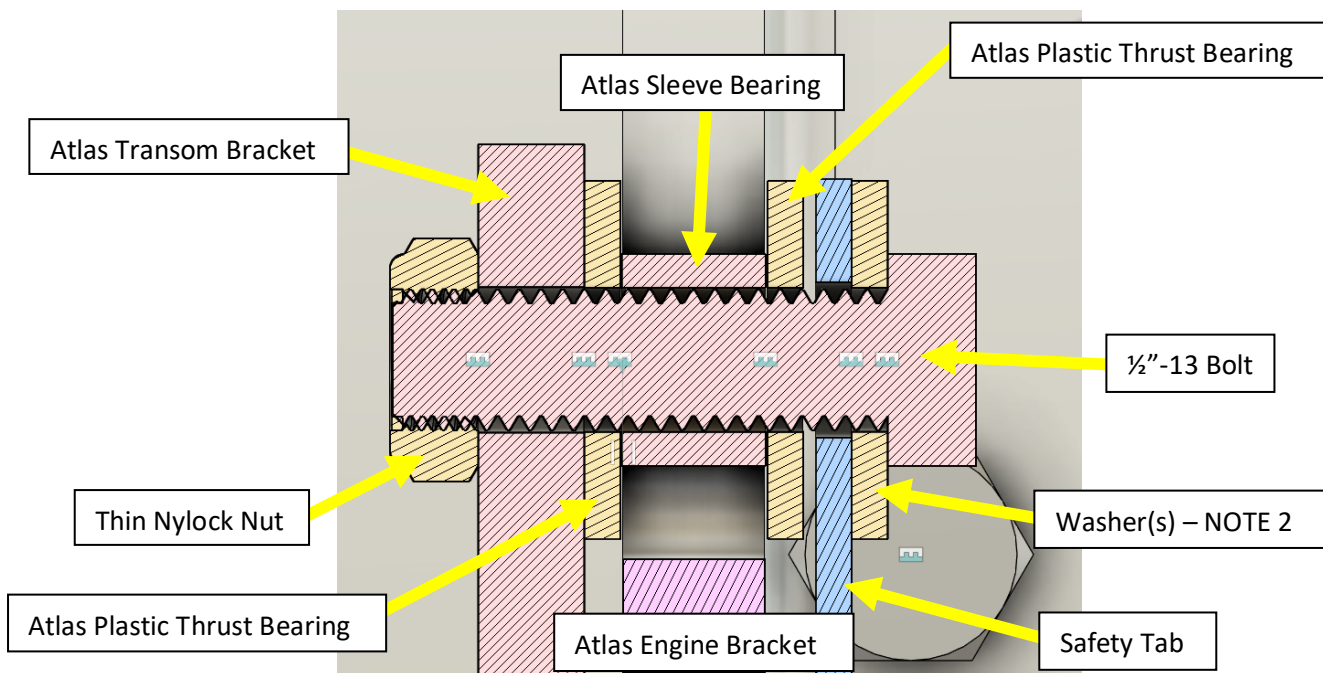


Figure 2 - Safety Tab with OEM TH Marine Bearings

6. Repeat Step 5 for the other slide bolt on the same side of the engine.
7. Slide the respective safety tab over the two studs.
8. Slide the transom bracket bolt back through the jack plate bracket and safety tab bracket. Replace the original washer and nut. Hand tighten.
9. **CAUTION: Perform the following steps on only ONE of the slide bolts at a time.**
  - a. Remove the stud, taking care to prohibit bearings and washers from falling out of place.

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- b. Place two washers on the NEW ½"-13 x 1.75 Cap Screw or reuse the single large Atlas outer washer (NOTE 2 in Figure 2) then insert through the safety tab and through the bearings.
  - c. Thread the ½" bolt into the transom bracket until the tip is flush with the inside of the bracket
  - d. Place a new, thin Nylock nut into position and continue threading the ½" bolt through the transom bracket and into the Nylock nut.
  - e. Thread the bolt down hand tight.
10. Repeat Step 10 for the other slide bolt
  11. Per the TH Marine Manual of the Atlas Micro, adjust the ½"-13 Cap Screws such that the plastic thrust washers may be spun by hand.
  12. Tighten the two thin Nylock nuts on each slide bolt wrench tight. It will be necessary to hold the ½" slide bolts tight to prevent them from backing out.
  13. Tighten the transom bolt and nut to 45 ft-lbs.
  14. Repeat this procedure for the other side.
  15. Ensure that the tips of the ½"-13 bolts do not protrude beyond the end of the thin Nylock nuts and contact the actuator. If contact is being made, or the ends of the bolts are close, please check bolt adjustment per Step 11. If extreme contact/protrusion is noted, it is advisable to add a washer below the head of the ½"-13 cap screw.

Please reach out with any comments, questions or concerns and we will do our best to respond in a timely fashion: [hullmarineproducts@gmail.com](mailto:hullmarineproducts@gmail.com)