Gori 2-Blade Shaft Installation Instructions

Table of Contents

Parts List

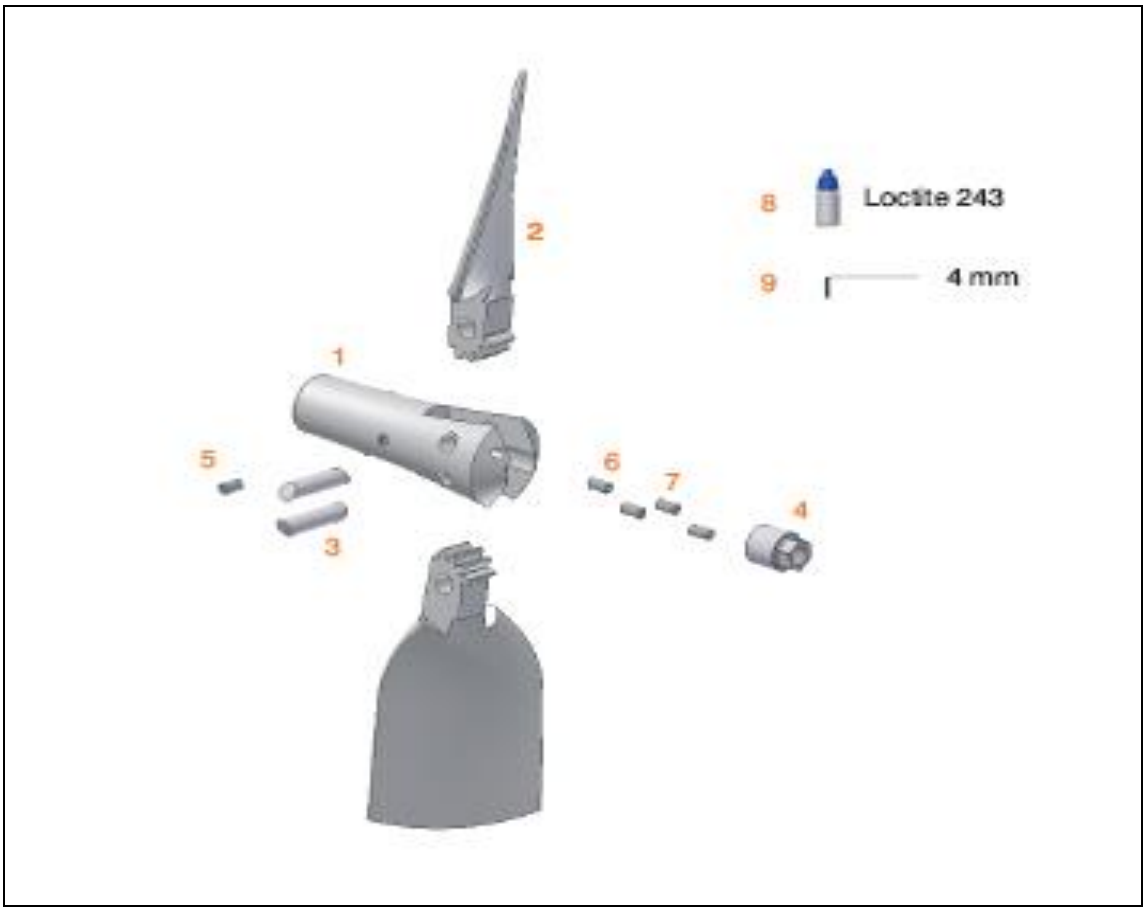
1	Hub	1 x ea
2	Blades	2 x ea
3	Pins	2 x ea
4	Shaft nut	1 x ea
5	Nut locking Allen screw	1 x ea
6, 7	Blade pin locking Allen Screws	4 x ea

Shaft Nut Socket Sizes

2-Blade ~ Standard Shaft	11.5" to 18" diameter	22 mm socket

Distributed By
AB Marine, Inc ▪ 747 Aquidneck Ave ▪ Middletown ▪ RI 02842
Tel: 401-847-7960 ▪ Fax: 401-849-0631
Email: Sales@AB-Marine.com ▪ Website: www.AB-Marine.com

Schematic Drawings



Torque Settings for Shaft Nuts

40Nm or 30ft/lb	60Nm or 45ft/lb	70N/m or 50 ft/lb	100Nm or 75ft/lb	125Nm or 75ft/lb
M14 X 2.0	M16 X 2.0	M16 x 1.5	M20 x 2.0	M20 X 2.5
M14 X 1.5	5/8″ BSW	5/8″ BSF		¾ BSW
½″ UNC	5/8″ UNC	5/8″ UNC		¾″ UNC
½″ BSF				

135Nm or 100ft/lb	160Nm or 115ft/lb	225Nm or 165ft/lb
M20x1.5	7/8″ UNC	M24 x 2.0
¾″ BSF		1″ BSF
¾″ UNC		1″ UNF

Distributed By
AB Marine, Inc ▪ 747 Aquidneck Ave ▪ Middletown ▪ RI 02842
Tel: 401-847-7960 ▪ Fax: 401-849-0631
Email: Sales@AB-Marine.com ▪ Website: www.AB-Marine.com

Installing the Propeller

The propeller is delivered assembled. This ensures that at the factory the propeller has been checked, and balanced before shipping.

1. Take the propeller apart – Remove the Two(2) M8 Allen set screws(#6&7) per blade pin. Push blade pins (#3) out with a wooden dowl to not damage the pin end. The blades, pins and hub are all marked (1 & 2) so as to re-assemble in the correct balanced location. Note: There are two (2) Allen screws per blade pin, a total of Four(4).

2. Check the fit of the hub (#1) onto the shaft without the key. Remove hub & check the key for fit, making sure there are no nicks and dings in it. The taper fit is dry – do not use a lubricant on hub or shaft taper.

3. Check that the shaft (#4) nut threads onto the shaft thread. It may be a "tight" fit.

4. Mount the hub on the shaft with key in place and tighten/torque (see above torque settings) the nut (#4) to the shaft. Use a 22mm socket. There should be a slight gap at the top of the key when hub fitted to shaft.

5. Apply locking glue (Loctite 243) to the threads of the shaft nut locking M8 Allen screw (#5). Install the screw into the hub to lock the shaft nut. Tighten the screw in place using the 4mm Allen key supplied.

The supplied Loctite 243 locking glue is "Blue" and is for disassemble of parts with hand tools. Loctite "Red" is permanent and requires heat to undo (450°F for 5 minutes). Applying locking glue correctly is important. The surfaces must be clean and degreased. Glue needs to be put in the hole as well as threads for blind holes such as with the Locking bolt.

6. Mount the blades (#2) and the pins (#3) to the hub. Be sure that you mount them in accordance to their numbers, i.e. #1 and #2 positions. Lightly grease the moving parts of the blades -gears- with water resistant grease after cleaning and repair.

7. Apply Loctite-243 on the threads of the Four(4) M8 Allen screws (#6&7) & Install into aft end of hub forks screwing them in until they tighten against the blade pin. Total four (4) – two (2) per blade pin. The second screw is a locking screw. Tighten both in place using supplied Allen Wrench. On 16.5-18" dia. the longer setscrew goes in first, the short one on top.

7. Check that the blades will move freely from open to closed.

Your Gori is water lubricated. At hauling, after cleaning, before storage, put a light "smear" of a waterproof grease over the blade/hub contact surfaces & gear teeth. This will allow you to check blade operation and stop oxidization of the metal when out of the water.

Distributed By
AB Marine, Inc ▪ 747 Aquidneck Ave ▪ Middletown ▪ RI 02842
Tel: 401-847-7960 ▪ Fax: 401-849-0631
Email: Sales@AB-Marine.com ▪ Website: www.AB-Marine.com

Removing the Propeller

1. Remove the two (6&7) M8 Allen screws per blade pin. There are two (2) Allen screws per blade pin,a total of four(4). Push the two blade pin (3) out using a wooden dowl - note blades, pins and hub are numbered for re-assembly.

2. Unscrew the nut locking set screw (5) from the hub (1).

3. Using a 22mm socket unscrew counterclockwise the shaft nut (4) using a 22mm socket. It may be necessary to lock the output shaft when undoing the shaft nut. To do this either put the engine into reverse or use a strap wrench to hold the hub (1).

4. Remove the hub(1) off the shaft taper using a prop puller. Heat may have to be used on the hub while using the puller. Retain the key.

Distributed By
AB Marine, Inc ▪ 747 Aquidneck Ave ▪ Middletown ▪ RI 02842
Tel: 401-847-7960 ▪ Fax: 401-849-0631
Email: Sales@AB-Marine.com ▪ Website: www.AB-Marine.com

Operating Instructions

Ahead

The propeller will operate in the standard forward setting when the blades open, due to the centrifugal force of the shaft when in gear.

Astern

If the boat has not been used for sometime, it is wise to shift cautiously between forward and reverse a few times before going out sailing in order to clean the teeth of the blades and the gears from further fouling.

In the reverse position the pitch on the blades is at a greater angle then when in standard forward. This is done purposely as many transmissions have higher ratios in reverse then forward and so require a greater pitch to take into account the slower shaft rpm when in reverse.

**Gori propeller disclaims the responsibility for any damage caused by overloading the engine. In case of doubt about the engine loading, you should contact the authorized engine service agent and Gori propeller as well.*

Sailing

When sailing, the blades will fold and the shaft will not spin, giving you less drag and more speed. When starting to sail, to fold the Gori blades immediately, go into reverse for a brief second, then back to neutral. This stops the shaft immediately and the blades will fold and align with least resistance. Turn off the engine. With mechanical transmissions you can put the shift lever into reverse – see your engine manufacturer's instructions. Hydraulic transmissions will not rotate when under sail with the Gori propeller.

WARNING!!!

- Do not start the engine while the boat is out of the water
- The prop may have sharp edges… be careful not to cut yourself
- Make sure the blades do not open or close suddenly and trap your fingers
- Stop the engine before diving or swimming in the vicinity of the boat
- Propeller blades can cause considerable damage when rotating … be careful.
- Do not remove fish nets, rope or similar from the prop with the engine running.
- Check that the prop works in both forward and reverse before each trip.
- If any strange sounds or vibrations are noticed coming from the propeller stop the engine and investigate the reasons/solve the problem.
- In case of problems in connection with the mounting, use or other function of the propeller, contact Gori propeller or the local agent/importer.

Distributed By
AB Marine, Inc ▪ 747 Aquidneck Ave ▪ Middletown ▪ RI 02842
Tel: 401-847-7960 ▪ Fax: 401-849-0631
Email: Sales@AB-Marine.com ▪ Website: www.AB-Marine.com

Cleaning and Maintenance

Annual Maintenance

1. Clean your propeller with an acid cleaner such as Barnacle Buster – per MSDS, use 85% phosphoric acid with concentration of 5%-20%. When pressurewashing, using Scotchbrite, wire brush/wheel, bead blaster or 120 grit paper, be mindful of, i.e., do not "attack", the blade edges.

   Propeller blades "work" with attached water flow - 1mm of growth on a blade causes loss of approximately 12% of its efficiency - so keep the blades clean.

2. Remove any growth on the blade gear teeth.

3. Smear with your finger a light coating of a Lithium based waterproof grease on the teeth/forks/blade root - the contact faces and moving parts. This stops surface oxidizing over the winter and ensures smooth operation.

4. If you have disassembled your GORI make sure that the Jacket/Blade assembly threads are greased so that any calcium build up is negated in the thread.

5. Paint with hard anti-foiling paint, ablative antifouling and a silicon based epoxy (i.e. PropSpeed), zinc spray or any other product that says it negates/stops growth (Lanolin etc) can be used.

6. Ensure that the coating is smooth and does not impair the operation of the blades (gear teeth, bearings, seals etc).

Underwater Installation

Underwater installation is NOT recommended, but can be accomplished by a skilled diver and appropriate tools and underwater fastener adhesives

Loctite 248 is a medium strength Threadlocker Stick that is sold to be used under water. Apply the 248 to clean dry threads out of the water and make sure the wax based product is thoroughly pushed into all of the threads (no air gaps) before taking the fastener below the water. It takes 24hrs for full cure after installation. Loctite 248 blue stick can be purchased from Fastenal http://www.fastenal.com/web/locations.ex

Vibra-Tite VC-3 is an automotive product that can be used under water. Apply to the fastener threads, let dry for 10-30 minutes and install below water. VC-3 is available from most auto parts stores - we have the VC-3 in stock (used with our Shaft Shark line cutter) and can ship the same day as your order.

Do Not Use regular thread locking glue not intended for use underwater – attempts to apply it under water will ultimately fail/wash off

Bondchem WT03 Thread Locker liquid glue, supplied by Gori, and Loctite Blue 242 liquid (or Red) cannot be used under water - they cure anaerobically and must be applied to a clean dry surface as per their instructions.

Distributed By
AB Marine, Inc ▪ 747 Aquidneck Ave ▪ Middletown ▪ RI 02842
Tel: 401-847-7960 ▪ Fax: 401-849-0631
Email: Sales@AB-Marine.com ▪ Website: www.AB-Marine.com