

# Instructions for a Briggs Mini Drive Unit

## WARNING

- § Never reach hands or other body parts in or near moving parts!
- § Maintain a safe distance from any fixed or moving propeller!
- § Prior to beginning any work on your project, turn off the main battery switch and/or remove the battery terminals and ignition keys!
- § The unit components weigh between 5 lbs. B 30 lbs. Take necessary precautions to avoid injury when preparing to, or when installing the drive unit. Always have a co-worker nearby or assistant available to help.

**If you have any questions or need technical assistance, contact Customer Service at 866-679-4200.**

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## **Briggs Mini Drive Unit**

**Note: All units are shipped pre-greased. It is suggested that you apply grease to both zerk fittings every 18 - 20 hours of operation with 3 pumps in Upper Assembly and 2 pumps in Lower Assembly with Pennzoil 707L high temperature wheel bearing grease or its equivalent.**

- 1.) Remove the Upper Assembly from the main plate (6) 3/8 x 16 x 1 save these because they will be used again.**
- 2.) Inspect and clean any preservative or burrs from the output shaft of the Briggs engine.**
- 3.) Back out the (2) set screws in the lower bearing. Align the Lower Bearing that is mounted into the main plate with the output shaft and slide the plate assembly over the shaft up to the engine. A rubber mallet can be used lightly to help seat the plate and lower bearing to the motor. Then using the (4) 7/16 B 14 x 1 2 SHCS with 7/16@ washers and (4) 5/16@ B 24 - 1 SHCS with 5/16@**

washers, attach the main plate to the engine. Then torque the 7/16@ bolts to 40 lbs. and the 5/16@ to 30 lbs.

- 4.) Install provided key into output shaft. Align one of the set screws of the lower bearing directly on to the key apply loctite to the threads of the set screw and tighten both of the Allen set screws on the lower bearing.
- 5.) Remove (3) 3@ 20 x 1 SHCS and 3@ washers. Then separate the lower locking sleeve from the pulley, slide the lower pulley on to the shaft with the bolt holes facing away from the engine then be sure to tighten. Slide locking sleeve over output shaft and key be sure to just start the (3) 1/4 - 20 x 1 SHCS for now. Next temporarily install the belt. Note: That the upper assembly flange has an eccentric to be able to tighten the belt. You will need the short side off the eccentric down in order to install the belt over the pulley. Then rotate the upper assembly until the belt is snug and install (3) of the bolts removed in step one. Using (3) bolts to temporarily snug the upper assembly to the plate.
- 6.) While looking at the side of the unit, align the belt from the upper pulley to the lower pulley. Once the belt is centered and aligned between the upper and lower pulleys. Slowly tighten (3) 3@ x 20 x 1 SHCS and 3@ washers into the tapered locking sleeve keeping the lower pulley aligned with the upper pulley.
- 7.) Remove (3) bolts temporarily holding upper assembly while holding pressure inward, use the pinned wrench provided rotate the shaft assembly clockwise to reach the proper belt tension which is snug with about a 3@ deflection only at the belt edges. Rotate the engine (2) revolutions by hand and recheck the belt tension. Install all (6) 3/8@ x 16 B 1 bolts and lock washers through the main plate to 35 lbs. It is recommended to use loctite on the cap screws when doing the final assembly.
- 8.) Check to make sure all the bolts are properly tightened and all tools are clear before starting your engine.
- 9.) Install your propeller according to the propeller manufacturer's instructions.

- 10.) Suggestion: If you remove the governor on your Briggs engine, adjust the pitch on your propeller to keep the maximum RPM of your engine between 3900 and 4000 RPM's.