The following instructions are intended to assist the user with the replacement of the upper clutch weights on the HHNG5 Walk-Behind Trowel. The weights in a CVT clutch system are the main factor in controlling peak RPM. Simply put, heavier weights equal less RPMs, and lighter weights equal greater RPMs. Please read all assembly instructions before installing the kit.

#### **REQUIRED TOOLS**

- ■3/8" Ratchet
- ■5/8" Socket
- ■3/32" Allen Wrench
- 7/16," 3/8", 5/8" Wrench
- Blue Loctite<sup>™</sup> #242
- Torque Wrench
- Clutch Holding Strap
- 7/16" Fender Washer
- 7/16-20" Hex Nut
- 7/16-20 x 8.5" Threaded Rod

#### **PARTS**

Verify that all parts are accounted for. See Figure 1 and Table 1.

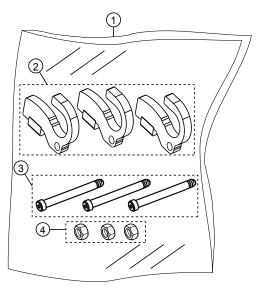


Figure 1. Clutch Weight Replacement Kit

Table 1. Clutch Weight Replacement Kit				
Item No.	Part No.	Description	QTY.	Remarks
1	32450	HHNG5 Weight Kit (White)	1	Includes items 2-4
2		Clutch Weight (White)	3	
3		10-24 x 2-1/4" Screw, Shoulder	3	
4		10-24 Hex Nut	3	

#### **WORK SAFELY!**

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

#### **PREPARATION**

- 1. Make sure engine is turned off and engine is cool.
- 2. Place the trowel in an area free of dirt and debris. Make sure it is on secure level ground.

#### **BATTERY COVER REMOVAL**

- 1. Remove the two wing nuts (Figure 2) securing the battery hold down bar to the battery cover.
- 2. Set wing nut, battery cover, and hold down bar aside.

#### **BATTERY CABLE DISCONNECTION**

1. Disconnect the **BLACK** negative battery cable (Figure 2) from the battery post.

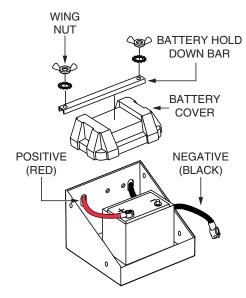


Figure 2. Battery Cover Removal and Cable Disconnection

#### **BELT GUARD REMOVAL**

- Remove the P-clamp (Figure 3) securing the choke cable to the belt guard. Set the P-clamp aside in a safe place and move the choke cable out of the way.
- 2. Using a 7/16" wrench, remove the 1/4-20 x 3/4" retaining screws (10) securing the belt guard panels. Set the panels and retaining screws aside in a clean safe place. See Figure 3.

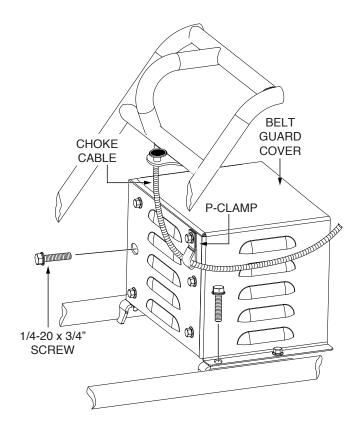


Figure 3. Belt Guard Removal

#### **CLUTCH RETAINING SCREW REMOVAL**

#### **NOTICE**

Lock the upper clutch in place using a clutch holding strap to prevent upper clutch movement when removing and installing the clutch retaining screw and step washer.

1. Using an 5/8" socket, remove the 7/16-20 x 6.5"clutch retaining screw and step washer (Figure 4) that secures the upper clutch to the engine shaft.

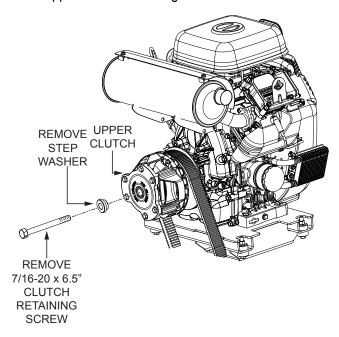


Figure 4. Upper Clutch Retaining Screw Removal

2. Place the clutch retaining screw and step washer aside in a safe place.

#### **UPPER CLUTCH COVER REMOVAL**

1. Prior to disassembly, mark the clutch cover in relation to the clutch body for correct orientation during reassembly as shown in Figure 5.

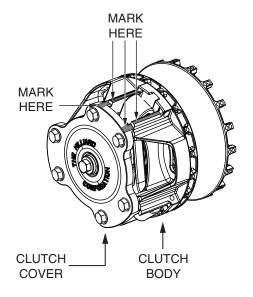
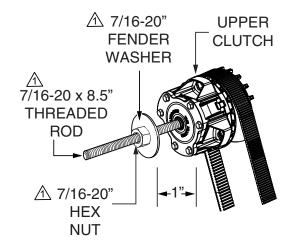


Figure 5. Clutch Markings

- 2. Insert a 7/16-20 x 8.5" threaded rod through the clutch retaining screw opening as shown in Figure 6.
- 3. Place a 7/16" fender washer and 7/16-20" hex nut onto the threaded rod as shown in Figure 6. Adjust the fender washer for a 1" distance from the clutch cover.



NOTES:

NOT SUPPLIED WITH KIT.

MUST BE PURCHASED SEPARATELY.

Figure 6. Threaded Rod Tool

#### **NOTICE**

The 7/16-20" fender washer and 7/16-20" hex nut will prevent the clutch cover from releasing with excessive force due to spring tension.

4. Using a 3/8" socket, remove the six 1/4-20 x 1" clutch cover retaining screws (Figure 7) in a star pattern and set screws aside.

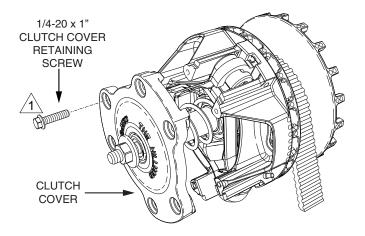


Figure 7. Clutch Cover Bolt Removal

#### **CLUTCH WEIGHT REMOVAL**

1. Using a 3/8" wrench and 3/32" allen wrench, remove the 10-24 x 2-1/4" clutch weight retaining bolts (3) and 10-24 x 1/4" hex nuts (3) as shown in Figure 8.

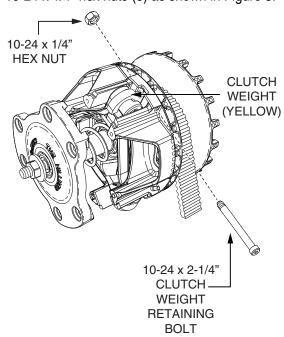


Figure 8. Clutch Weight Bolt Removal

2. Remove the **YELLOW** clutch weights (3) as shown in Figure 9.

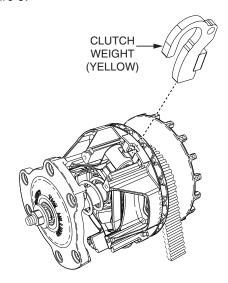


Figure 9. Yellow Clutch Weight Removal

- 3. Insert and secure the new **WHITE** clutch weights (3), 10-24 x 1/4" clutch weight retaining bolts (3), and 10-24 x 1/4" hex nut (3) as shown in Figure 10.
- 4. Torque the 10-24 x 2-1/4" clutch retaining bolt to  $5.25\sim5.75$  ft-lbs  $(7.12\sim7.80$  N·m) as shown in Figure 10.

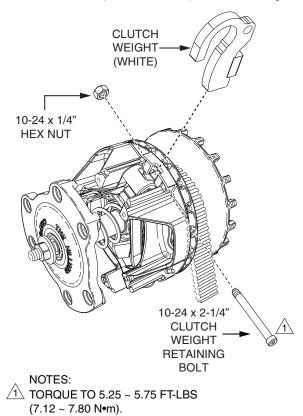


Figure 10. White Clutch Weight Installation

#### **UPPER CLUTCH COVER REASSEMBLY**

- 1. Prior to reassembly, align the clutch cover and clutch body markings for correct orientation as shown in Figure 5.
- 2. Using a 5/8" wrench, turn the 7/16-20" hex nut clockwise to compress the spring so the clutch cover meets the clutch body as shown in Figure 11.
- 3. Using a 3/8" socket, tighten the six 1/4-20 x 1" clutch cover retaining screws in a star pattern as shown in Figure 11.
- 4. Torque the six 1/4-20 x 1" clutch cover retaining screws to 7~11 ft-lbs (9.50~14.91 N⋅m) as shown in Figure 11.

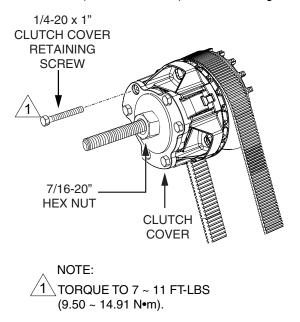


Figure 11. Clutch Cover Reassembly

5. Once the clutch cover is secure, remove the threaded rod tool.

#### **INSTALLING CLUTCH RETAINING SCREW**

- 1. Clean the threads on the 7/16-20 x 6.5" clutch retaining screw with brake cleaner.
- 2. Apply Blue Loctite<sup>™</sup> (P/N 1477) to clutch retaining screw threads as shown in Figure 12.
- Secure the clutch with a clutch holding strap before inserting and threading the clutch retaining screw through the clutch retaining screw opening.
- 4. Using a 5/8" socket, tighten the 7/16-20 x 6.5" clutch retaining screw and step washer to secure the upper clutch to the engine shaft as shown in Figure 12.
- 5. Torque the clutch retaining screw to 45 ft-lbs (61 N⋅m) as shown in Figure 12.

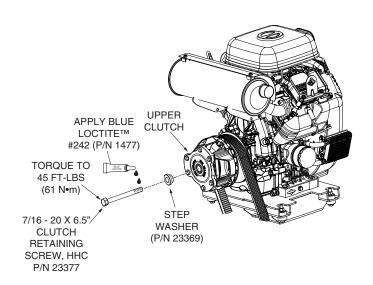


Figure 12. Upper Clutch Fastening

Tel. (800) 421-1244

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# **HERE'S HOW TO GET HELP**

## PLEASE HAVE THE MODEL AND SERIAL NUMBER ON-HAND WHEN CALLING

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