



Service Bulletin	B0303005
	2003-04

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**Subject:** Warner Electric 300 ft. lb. Clutch/Brake on BAM Units.

**Effected Serial Numbers:** Instructions on pages 2 & 3 apply to ALL BAM Units.

**Service Information:**

The Clutch/Brake used on the BAM must be burnished during pre-delivery. It is very important that the burnishing procedure found on the bottom of page 3 of this bulletin be completed before the machine is delivered to the end user.

Because the braking surfaces in this clutch/brake are both metal, sparks that are generated during initial clutch engagement are normal.

**IMPORTANT:** *As with all Husqvarna clutches, the PTO switch must not be engaged at full engine rpm, or rapid clutch wear can be expected. Instruct the customer/ end user to always engage the PTO at approximately half throttle.*

This 300 ft. lb. clutch/brake is also adjustable. Air gap adjustment procedures are shown on pages 2 and 3, so save this bulletin for future use.

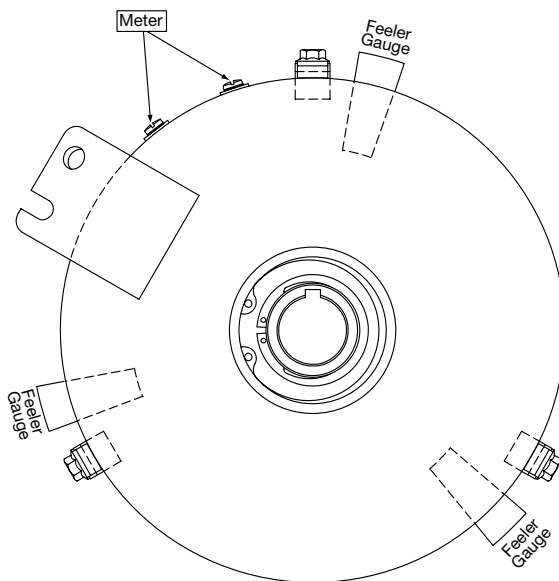
**NOTE:** This bulletin does not apply to other Husqvarna Commercial Zero Turn Mowers which use non-adjustable clutches,

# *Airgap Adjustment and Electrical Specifications for* **Warner GT-300**

## **Procedure for Air gapping Warner GT-300**

Bench setting:

1. Remove clutch from tractor.
2. Loosen but do not remove the three brake mounting screws. Insert a 0.015" feeler gauge or equivalent thickness shim stock at each screw location being careful to locate the gauge between the rotor face and the armature face. (Figure 1)
3. With all three feeler gauges in place, apply 12 volts to engage the clutch against the shims. While depressing the brake drum to the back of the armature at each mounting screw location, tighten the mounting screw to 75 in.lbs.
4. Remove the 12 volts applied to the clutch and remove the feeler gauges. Turn the rotor assembly to check for rotor /armature drag. The rotor should turn freely.
5. Due to dimensional variations, the airgap between the rotor and armature may vary on a clutch from .025" to .005", even though the gap at the three studs was set at 0.015". This is an acceptable condition.
6. Using the feeler gauges check the airgap at the stud locations. If the airgap does not fall between .023/.005", repeat the procedure outlined in steps 1-5 above.



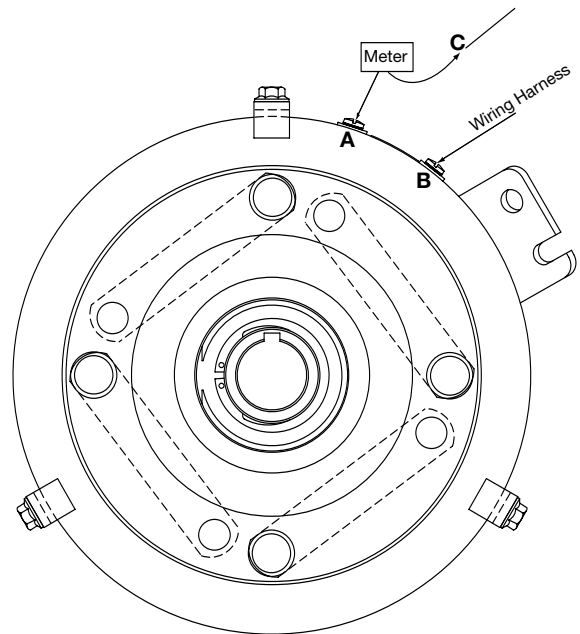
## Setting air gap on the engine crankshaft

The clutch should be mounted to engine crankshaft and secured with appropriate bolt and washer with a minimum thickness of .250". Tightening torque on 7/16" bolt is 50 ft.lb. Follow steps 2-7 listed above to set airgap.

## Electrical check for Warner GT-300 clutches.

Coil resistance:

1. Turn engine and PTO switch off.
2. Disconnect clutch wire connection.
3. Select meter setting to ohms.
4. Connect meter lead wires to the terminals of the clutch (Figure 1)
5. If meter reads between 1.82 ohms and 2.03 ohms the coil is within specifications. If it falls below 1.8 or above 2.03 ohms the field needs to be replaced.



## Clutch current draw @ 12 volts

1. Turn off engine.
2. Disconnect clutch wire on one terminal, leaving other wire "D" connected to the clutch "B". (Figure 3)
3. Select meter to check amps (10-amp scale).
4. Connect one meter lead wire to the clutch at "A" (Figure 2)
5. Connect the other meter lead wire to the corresponding wire from the harness at "C" (Figure 3)
6. Turn PTO switch on.
7. If meter reads below 6 amps, the problem would be in the electrical system leading to the clutch (battery, relay, switch, etc.).

### Note:

All values taken at room temperature. Voltage at 12VDC. As temperature increases, resistance increases, and current decreases

## Burnish Procedure

1. Run engine at approximately 25% throttle (higher RPM may be necessary if engine stalls)
2. Engage clutch, bring load up to engine RPM. Disengage and let load come to a complete stop. Repeat twelve (12) times.
3. Repeat step two at 50% throttle for five (5) cycles.
4. Increase engine RPM to full throttle and engage and disengage as in step 2 repeating five (5) times.

