

Airgap Adjustment and Electrical Specifications for Warner GT-300

Service & Installation Instructions

P-1759-WE
819-0543



Procedure for Air gapping Warner GT-300

Bench setting:

1. Remove clutch from tractor.
2. Apply 12 volts to engage the clutch. 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 armature and brake ring. (Figure 1 and 2)
3. Depress the brake ring to the shims on the back of the armature at each mounting screw location, tighten the mounting screw to 140 in.lbs.
4. Remove the 3 feeler gauges. Remove the 12 volts applied to the clutch. Turn the rotor assembly to check for rotor / armature drag. The rotor should turn freely.
5. Apply 12 volts to engage the clutch, using the feeler gauges check the airgap at the stud locations to verify the air gap. 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. If the airgap does not fall between .025/.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". Mounting bolt torqued to specification, confirm bolt does not bottom in drilled and taped hole:

- 7/16-20 UNF **Grade 8 bolt** torqued to 65-80 lb.-ft.
- M 10 X 1.50 Class 10.9 torqued to 70-75 Nm

Follow steps 2-6 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)

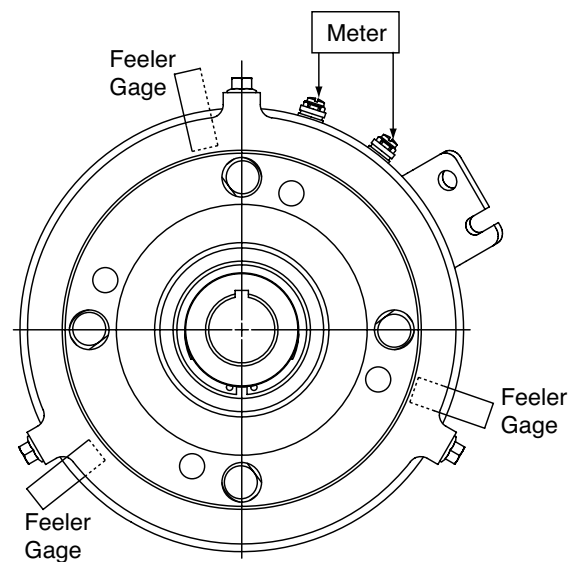


Figure 1

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 at 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 3)
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.

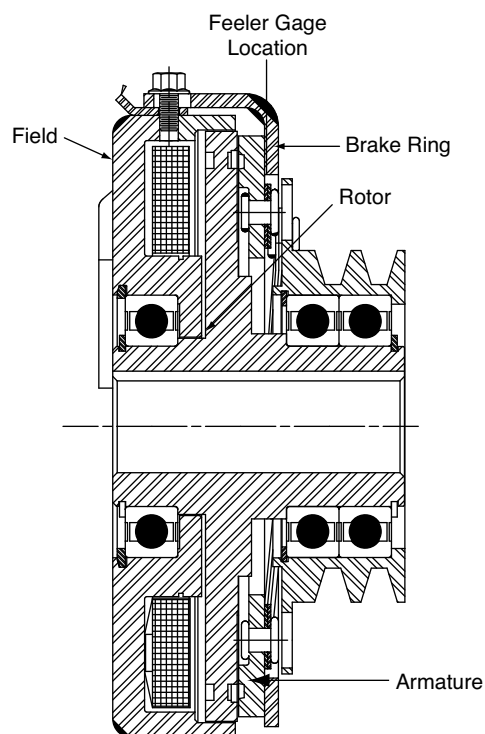


Figure 2

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.

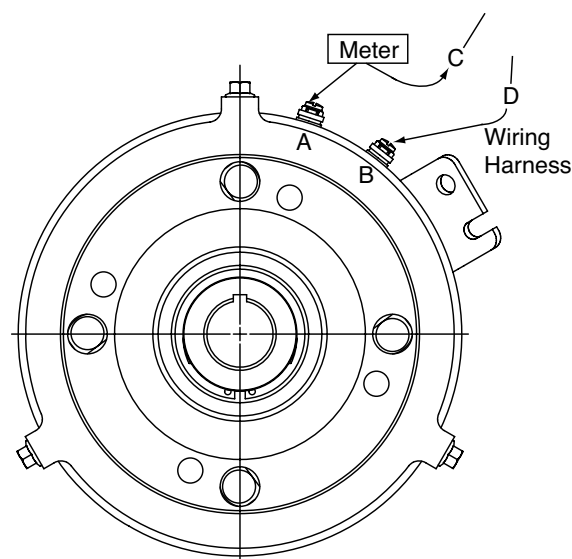


Figure 3

Warranty

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31 Industrial Park Road
New Hartford, CT 06057
815-389-3771