



# SERVICE BULLETIN NO. 85

SEC. VIII, DIV. A  
ROTARY LAWN MOWERS  
Issued April, 1958

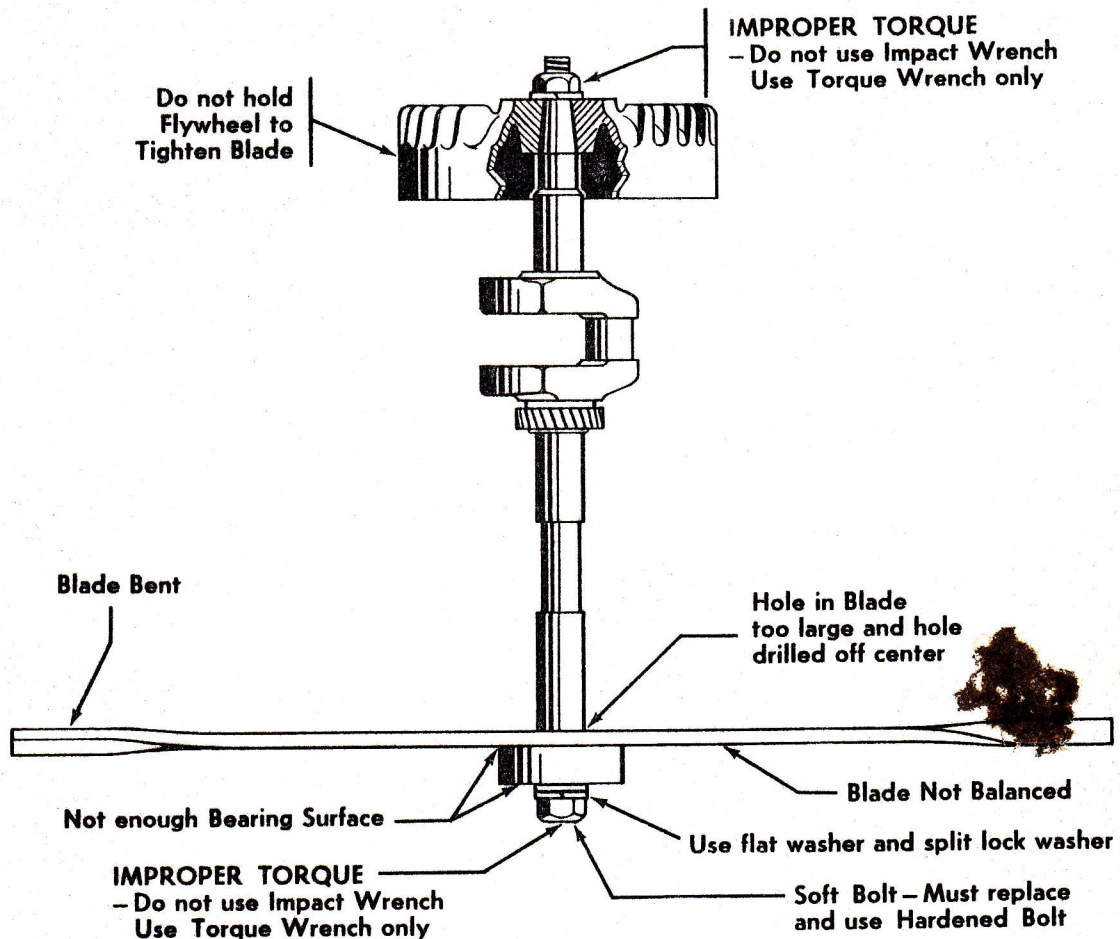
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## SUBJECT: A Check List for Servicing Rotary Lawn Mowers

Vibration can cause much damage to any gasoline engine — particularly to one on a rotary lawn mower. Excessive vibration can cause flywheels to crack—loosen bolts, parts and even crack or break the mower deck or cause internal damage to the engine.

Be sure to check the items pointed out in the illustration below whenever you service a rotary lawn mower.

### CHECK FOR:—



Proper torque on flywheels is as follows:

CAST IRON	-----	175-200 inch pounds
ZINC	-----	300-350 inch pounds

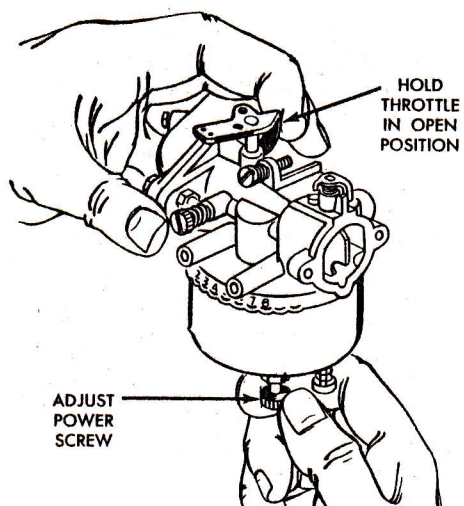
Torque on rotary mower blade holding cap screw should be a minimum of 250 inch pounds.

**NOTE: Check Engine Speed, as excessive speed will cause vibration and damage. Recommended setting is 3400 r.p.m.**

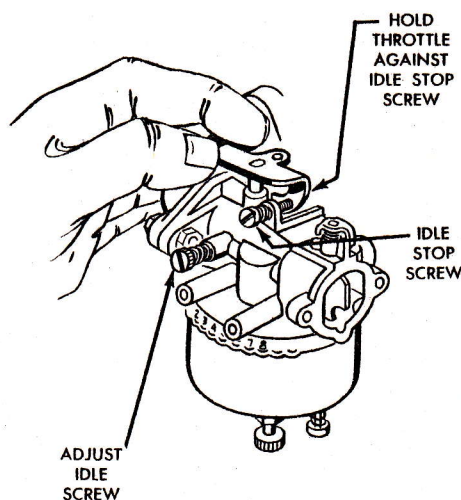
## **SUBJECT: Proper Carburetor Adjustments and Settings to Reduce Vibration**

Considerable vibration, surge and general malfunction of any gasoline engine can be caused by improper carburetor adjustment. At certain speeds a vibration or "surge" may be caused by the centrifugal force of the blade. This often occurs at idle speeds. The following procedure should be followed on all Clinton Engines (3 h.p. or under) to reduce this vibration:

1. Place tension on the governor spring. Start engine and allow it to warm up.



**FIG. 1**



**FIG. 2**

2. Lock throttle in open position at 3600 r.p.m. (Fig. 1). Then adjust power screw until highest r.p.m. is reached at the locked throttle position.
3. Hold throttle against idle stop (Fig. 2), and adjust the idle screw to the highest r.p.m. in this locked position. Then adjust idle stop screw until speed of engine is no less than 1750 r.p.m.
4. Now accelerate the engine with governor spring tension to be sure it accelerates properly.
5. Readjust the power screw for best acceleration. Then open the power screw  $\frac{1}{8}$  turn or more to allow a richer mixture to compensate for the load.
6. Check the idle setting again by holding throttle against idle stop (Fig. 2) and watch for vibration. Adjust idle stop screw for slower or faster r.p.m. until vibration or "surge" is reduced.

# **CLINTON ENGINES CORPORATION**

**MAQUOKETA, IOWA, U. S. A.**