

## ENGINE OVERSPEEDING

1. If the engine runs wide open (faster than normal), shut the engine off **immediately**.
2. Check the condition of the external governor shaft, linkage, governor spring, and speed control assembly for breakage, stretching or binding. Correct or replace binding or damaged parts.
3. Follow the governor adjustment procedure and reset the governor - see "Service" in this chapter.
4. Run the engine. Be ready to shut the engine off if an overspeed problem still exists. If the problem persists, the engine will require disassembly to inspect the governor gear assembly for damage, binding, or wear.
5. See Chapter 9 under "Disassembly Procedure" to disassemble the engine.
6. Remove the governor gear assembly. Repair or replace as necessary.

## ENGINE SURGING

1. Try to stabilize the engine R.P.M. by holding steady the solid link between the governor arm and the carburetor throttle, using a pliers or fingers.
2. If the engine R.P.M. stabilizes, the governor or governor adjustment should be checked. See "Service" governor adjustment procedure in this chapter. If the engine R.P.M. does not stabilize, the engine will require additional checks, see Chapter 9 under "Troubleshooting".
3. If the problem persists after the governor adjustment, check the engine R.P.M. found on microfiche card # 30. The R.P.M. settings are critical. If the R.P.M. setting for high and low speed are within specification and a slight surge is experienced, increasing the engine idle R.P.M. setting slightly may eliminate this condition.
4. Check the governor shaft or linkages for binding, wear, or improper hookup. Check the governor spring for adequate tension. Repair or replace as necessary.

## SERVICE

### GOVERNOR ADJUSTMENT

With the engine stopped, loosen the screw holding the governor clamp on the governor lever. Rotate the clamp in a direction that will force the throttle shaft open and allow the governor follower arm to rest on the governor spool. Push the governor lever connected to the throttle to the wide open throttle position. Hold the lever and clamp in this position while tightening the screw (diag. 7).

### GOVERNOR ADJUSTMENT PROCEDURE FOR SHORT BLOCK INSTALLATIONS

Short block installation on 3-5 h.p. vertical shaft engines built prior to 1977 may require the governor clamp (tinnerman style) to be repositioned to work properly. The clamp must be removed from the governor rod and turned to the same position as the original engine. Hook the solid link and spring to the governor lever and position the clamp on the governor rod. Follow the above governor adjustment procedure to complete the short block governor set-up. Units built after 1977 use the normal governor set up procedure. (diag. 8)

