McCULLOCH CORPORATION
SERVICE BULLETIN

1524

MODEL: SP125 and SP80 July 31, 1972

SUBJECT: EXCESSIVE ENGINE R.P.M.

As most of you are aware, lean carburetor settings result in very high engine R.P.M. which actually cut down an engine's lugging power. These same lean carburetor settings also create very high combustion chamber temperatures which can cause a wide variety of powerhead problems.

Recent reports from the field verify that the SP125 and SP80 are consistently being operated at from 11,000 to 12,000 R.P.M. which is too high and causes very high combustion chamber temperatures. We recommend that the SP125 and SP80 carburetors be adjusted so the engine will not exceed 10,500 R.P.M. free running at W.O.T. (wide open throttle) with bar and chain installed.

While most people depend on engine sound to make carburetor adjustments, we have found that the only exact method of determining engine R.P.M. is by using a tachometer.

Recommended carburetor adjustment procedures are as follows:

1. Install bar and chain onto the saw.
2. Adjust low and high speed fuel mixture needles to 1-1/4 turns open.
3. Back out idle speed adjustment screw until throttle butterfly is fully closed.
4. Start the engine and allow it to warm up.
5. Adjust low speed fuel needle for clean acceleration only, not for idle speed.
6. Adjust idle speed screw for correct idle speed without chain movement.
7. Accelerate engine to W.O.T. and adjust high speed fuel needle until engine speed is under 10,500 R.P.M. The engine should only be run for short bursts while making this adjustment.

NOTE: As engine speed must be adjusted for no more than 10,500 R.P.M., it is important that the tachometers used, whether reed-type or electronic, have a maximum capability of registering not less than 12,000 R.P.M. If the maximum R.P.M. which registers on the tachometer is lower than 12,000, the adjustment procedure is more difficult.

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