Cutoff Saw Maintenance - Measuring Blade RPM

Do you know how fast your cutoff saw blade turns? I don't mean the specs the manufacturer gave you for how fast it *could* turn, or how fast it *should* turn at factory settings with factory conditions, I mean **how fast it turns right now**. N

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Having that information about your saw will do several things for you. First and foremost it'll tell you if you have a healthy cutoff saw. A saw that runs within a few hundred RPM of the specified rate in your owner's manual means you probably have good a smooth running engine, with the right carburetor settings, full combustion, a clutch that grabs the belt with little or no slip at full throttle, and a well lubed pulley that the belt pulls well. All of that together gives you a fast-turning diamond blade on your cutoff saw, and gives you the most amount of torque you can have to cut through brick, block, concrete or metal.

If the saw is off the pace by a lot, you can begin to investigate the different reasons your saw might be running slow and adjust them. But you can't make adjustments if you don't first know there's a problem. You find that out by testing your cutoff saw's RPM. This is accomplished with a laser tachometer, and is a pretty simple operation.

Aim the laser where you placed the reflective sticker

Using an old, worn-out blade, place a reflective sticker toward the perimeter of the blade. Start the saw and get it to full throttle and keep it there (either have someone help you, or use a string to tie the throttle wide open). Aim the laser at where you think you placed the sticker (the blade will be moving so fast you won't be able to see the sticker), and begin measuring. Within a second or two your laser tach will give you a reading for your saw. Now compare that figure to the specs for your saw to see it it's running at peak performance, or if it needs a little tweaking.

As I mentioned earlier, check the parts of the saw that might affect blade RPM, including the condition of the belt, the condition and lubrication of the pulley, the condition of the clutch, and the carb settings. You should also check the spark plug, and look for excessive carbon buildup (you might see some leaking out of the compression release valve, if there is any). Make adjustments to these different parts of the saw as they are needed, and you should be able to get your saw back to spinning like a top...a mach 1 top, that is.


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