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2-STROKE BREAK-IN PROCEDURES

1. **Start your engine and let it idle**, occasionally blipping the throttle for four to five minutes. Allow the engine to cool completely. Repeat this *heat cycle* process four more times.
2. **Warm up the engine again** and ride the bike for five to seven minutes at a very easy pace. Vary the rpm, and do not ride at one speed. Do not ride at more than 1/3 throttle or more than 1/3 rpm. Let the engine cool down completely and repeat the initial break in ride. Let the engine cool down.
3. **Check the base and head nuts for proper torque**. Check the coolant level and add coolant as necessary.
4. **Ride the bike for five to ten minutes at a moderate pace**. Vary the rpm, and do not ride at more than 3/4 throttle or more than 3/4 rpm. Then let the engine cool completely and repeat this secondary break-in twice more.
5. **Replace the spark plug with a new one**. Ride the bike for five to eight minutes at a moderate pace. Vary the rpm, and shift up and down gears. Once the engine is up to operating temperature, you can make a jetting pass. Start in second gear and ride at full throttle through fourth gear, fully revving out fourth gear. With the throttle wide open in fourth hold the kill button down, pull the clutch, and stop. This is called a *plug chop*.
6. **Read the spark plug**. With a pocket flashlight and a magnifying glass, look at the porcelain part of the plug only. As you view the plug from the center electrode, look down on the length of the porcelain to its base. There should be a dark chocolate colored smoke ring. There was not sufficient time to thoroughly color the whole plug, so the nose of the insulator may still be white. As long as there is a visible dark ring at the base, everything is OK. Remember, we want break-in jetting, so the plug should read rich/dark. Richen the jetting as necessary. If you are having a hard time reading the spark plug, follow the proceeding steps: Put the plug in a vice, and hacksaw around the plug at the washer. Break the threads off with vise grips and the porcelain will be easy to read.
7. **Complete the break-in by riding at an aggressive pace for fifteen minutes**. Vary the rpm and do not cruise at part throttle. Ride hard without revving the engine too high. At the end of this final break-in session do another jetting pass/plug chop as described above. Check the spark plug for the correct dark/rich condition. Wiseco piston equipped engines will require another one or two break-in cycles. If your engine is equipped with a Wiseco piston, continue with the following steps: Ride at a recreational pace not revving the engine hard. Full throttle should only be used for very short periods. Fifth and sixth gears should only be used to cruise. Ride one tank of gas through the engine in this manner to complete the break-in.
8. **Replace the spark plug with a new one**. Ride the bike aggressively for eight minutes and do a jetting pass/plug chop in fifth gear. If the porcelain color is still dark/rich, lean the main jet size one at a time until the smoke ring at the base of the porcelain is a light brown. If the porcelain base is white, do not run the engine and contact L.A. SLEEVE. If the plug color looks good, continue riding at a race pace for ten minutes. Stop and let the engine cool. Check the torque on the cylinder base and head nuts.
9. **More on jetting**: If you generally run your engine flat out in sixth gear, then make your jet pass/plug chop in sixth. Motocross jetting is checked in fifth gear, therefore it is not safe to run MX jetting in the desert wide open in sixth. Desert jetting is richer than MX jetting. When running an engine at full throttle for extended periods, be sure to chop the throttle decisively to slow down. Just rolling out a little can seize a well-jetted engine.

Remember, the best top-end overhaul, done by the most qualified mechanic, is only as good as your break-in procedure. Good luck!