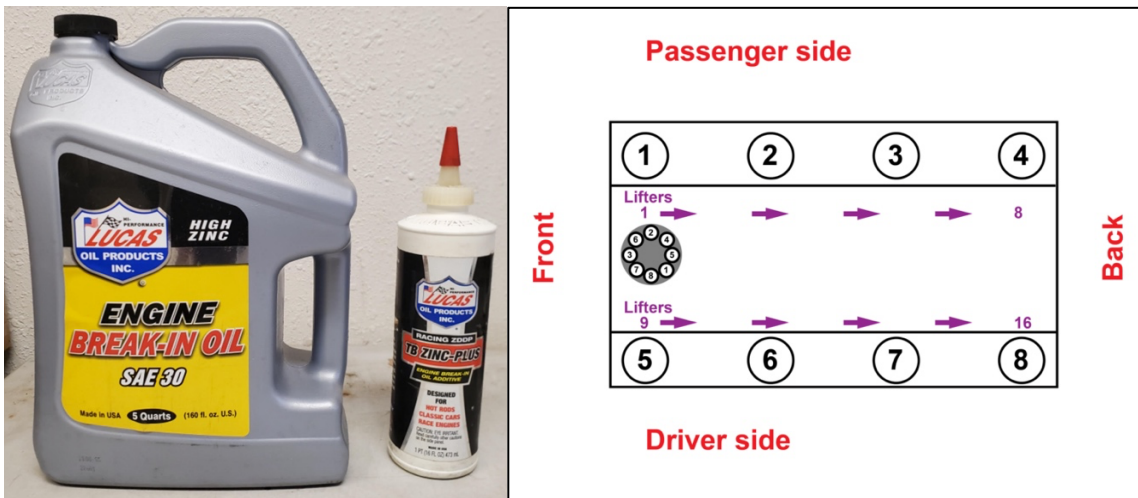


# CAM INSTRUCTION MANUAL

These camshafts are pre-broken-in for extra insurance that they will live a long happy life in your engine. That being said, you need to go through a break-in cycle for good measure!!! Give yourself the best odds of success, it's a lot cheaper than losing a camshaft.

Make sure to order 2 gallons of Lucas SAE 30 break in oil. You will run this oil straight for the break-in. **DO NOT MIX with anything else!!!**. Also order or pick up a 16 oz bottle of Lucas ZDDP additive (for your next couple of oil changes to come). We add some to every oil change. ZDDP was removed from our oil due to emissions standards as new cars didn't require it. That fact has cost many cams their life, even long after a successful break-in procedure. Again, why risk it for an extra \$3 per oil change.



**Only use the included Gibbs cam break in lube on the camshaft. NOTHING ELSE!**

The lifters must be installed in the position the camshaft was pre-broken in. Those lifters now match their corresponding lobes on the camshaft. They are numbered 1 through 16. Lifters 1 through 8 are for the passenger side of the

engine (right side) . #1 is the first on the passenger side front through #8 being the rear on the passenger side of the engine. Lifters #9-16 are for the driver side of the engine (Left side). #9 is the driver side front lifter, through #16 the rear on the driver side. Reference the included diagram. You do not have to pre-soak the lifters. Whether you do or don't pre-soak the lifter you have to prime the oil pump using a priming tool. You will naturally be on TDC to start with (having just installed the timing chain. Prime the pump well waiting for the resistance to ensure everything is primed, then rotate the engine (while priming) two full revolutions to end up back at TDC. This will ensure the engine and all lifters are properly primed. Check your oil level and fill it to the "FULL" mark.

If you're not at TDC ( 0 ) you need to set the rotating assembly to TDC. Install the distributor and point the rotor directly at spark plug post #1. Make sure the timing plug is installed. Next fully prime the fuel system by bypassing the fuel pump relay at the EEC-IV test port. Prime the fuel for at least one full minute (check for fuel leaks). You need to make sure that the engine is ready to immediately start when you hit the key. Make sure that everything is hooked up correctly. **Don't lock down the distributor.** Instead set tension on it to where you can barely turn it.

Grab a helper to work the gas pedal as you may have to turn the distributor. Walk them through what you're about to do and explain the next part.

When you do start the engine **don't** immediately race the engine up to RPM. Let the engine build oil pressure then smoothly but quickly bring it up. We always bring it up to 1600-1800 RPM and then fluctuate smoothly between 1400 and 1900 RPM. Don't spike or drop the RPM dramatically. Run the engine for 15-20 minutes to complete the break in cycle. We also don't immediately change oil. We run our engines gingerly for around 200 miles. As you go through these miles you can begin to drive more aggressively and put more load on the engine. At the point we drain and refill with quality oil and add ZDDP.