DEGREEING YOUR ERSON CAM:

The "Checking Figures @ .050" Cam Rise" data is the only figures to be used when checking the camshaft.

It is nearly impossible to check a cam at running clearance where the opening and closing points occur on the clearance ramp. It is also difficult to check lift at the valve, as flexibility in the valve train, minor errors in rocker arm geometry, etc. can add or subtract from the total lift.

For this reason we use a checking clearance of .050" lift off base circle measured at the tappet for all of our camshafts. The amount of rise is well past the end of the clearance ramp and will give consistent and predictable reading when degreeing the camshaft.

When checking the cam, with these figures, proceed in your normal matter to find T.D.C. and set your degree plate and pointer. Place dial indicator to read directly off of the tappet or an extension attached to the tappet. Find the base circle (are where tappet is on the heel of the cam and indicator is not moving) set the indicator at "0". Rotate engine in normal direction of rotation until indicator reads .050" lift, read degree plate. This will be the opening point of this valve for checking purposes. Proceed to rotate the engine in normal direction, watch indicator for gross lift reading. Continue turning the engine until you reach .050" above base circle. This is the closing point of this valve for checking purposes.

Check the other valve for this cylinder in the same matter. When you have all four figures you will be able to compare them to the "Checking Figures @ .050" Cam rise" figures on the other side of this cam card. Duration (opening number + 180 + closing number) should be within + or – 2 degrees. You will also be able to see if the cam is split, advanced or retarded.

Camshaft Break-In Checklist:

1) Use appropriate and compatible valve train parts.
2) Never put a used tappet on a new camshaft
3) Check valve to piston clearance
4) Check for spring coil bind, retainer to guide seal clearance.
5) Be sure rocker arms do not bottom out on the stud at either end of travel on engines using this type of rocker.

Oil and Additives:

It is highly recommended that you use a conventional SF or SE grade SAE 20 or SAE 30 weight NON DETERGENT
Motor oil with break in additive (Erson E911000); or
Joe Gibbs Racing Oil's Engine Break-In Oil (pn. 00107)
Due to the high ratio of detergents to zinc in new generation diesel oils, its use is no longer recommended for flat tappet camshafts.
Do not use any other oil additives at this time.
Coat cam lobes with the Moly Lube supplied with the camshaft.
Prime the oil system by turning the oil pump manually.

Break in Procedure:

Before starting the engine, be sure it is ready to run (oil, water, fuel, ignition timing, etc.)
Upon starting the engine bring the RPM up to 2000 RPM. **Do not let the engine idle.**
Run engine at 2000 RPM for at least 20 minutes.
If you must make adjustments during the break-in period, shut the engine down.
Do Not Let The Engine Idle.

Erson Cams
16 Kit Kat Dr.
Moundhouse, NV 89706
775/246-4062