

TM



8.2 Litre Performance Parts Albuquerque, New Mexico

INSTALLATION OF OVERSIZE VALVES '950, '250 & '902 CYLINDER HEADS ('68-'73 ONLY)

- ⊕ Measure stock valve stem height before cutting new oversize seats in the heads. This will aid in maintaining valve train geometry and calculating lifter preload

Very Important: Because the Cad engine has a non-adjustable valve train (with the exception of our Stage IV shaft rockers) you must maintain all valve stem heights at +/- .010" the length of the head to ensure consistent lifter preload throughout the engine.

- ⊕ Valve seats for the '68-'73 heads can be dropped .060" below stock to compensate for additional lifter preload with reduced base circle cams (most performance cams have a smaller base circle than the OE cams, whether they are reground or new billet cams). More than .060" can adversely affect the low lift flow characteristics of the heads. Should you end up with excessive lifter preload, Cad Company offers a shim kit for the rocker stands at no charge (or you can use USS or fender washers)
- ⊕ We recommend that you establish the valve seating surface in the middle of the valve faces on both the intake and exhaust valves. **Do not back cut the valves** as this takes away almost half of the long term valve seating area, and can lead to warped valves and or 'tuliped' valves in the Cadillac heads.
- ⊕ There is no need for 'false' or hardened seats in the Cadillac heads. They are very high in Nickel content, and the 21-4N stainless valves are impervious to Nitro, let alone unleaded gasoline. You also might very well fall through into the water jackets trying to cut them for the new seats... Basically, you can't hurt the stock seats without burning a valve first, and you'll most likely cause catastrophic engine failure before you succeed in burning the stainless valves.
- ⊕ **Make sure that the exhaust valves have no less than .002" stem clearance!** We recommend .002" on the intakes and .003" on the exhaust to prevent galling, and subsequent seizure, of the valves in their guides.
- ⊕ After cutting the new 3 angle seats, blend the 'ridge' left under the throat angle into the ports. We recommend 'pocket porting' the bowls all around to match the new valve openings. Lay back the short turn radii, but remember less is more if you're not sure — unless you have a very steady hand. It is very easy to break through into water. If you do work on this area, lay it back into a more gentle radius, rather than leaving a flat surface there, which will disturb the laminar flow. Gasket matching the ports also helps, but only if both sides are matched (IE intake ports on the head and intake).
- ⊕ Remember—for every .010" of valve over length, your lifter preload will increase by .006". For every .010" of pushrod over length, your lifter preload will increase by .017". For every .010" milled from the T-peDESTALS, lifter preload will be increased .006". Pushrod length should be compared to the standard pushrods for a given rocker setup. Stock, stage I, stage II/II, and Stage IV rockers all have different standard pushrod length and ball sizes.
- ⊕ Thank you for choosing Cad Company's Best Engineered Parts for the Cadillac 472", 500, and 425" engines. Feel free to call with any questions or suggestions, and hey . . . *A compliment every now and then would be welcome* _____ ☺