



KILL DEVIL DIESEL VALVETRAIN INSTALLATION NOTES

Congratulations on the purchase of your world class valvetrain components! Kill Devil Diesel is committed to providing the very best components and service in the industry, as part of that commitment, we want to help ensure that everything is installed properly to get the maximum benefit out of your investment! As with any modified vehicle, the further the combination of parts is away from factory, the more due diligence is required on the installer to make sure the entire combination functions correctly. Failure to verify proper function before/during installation may result in damaged engine parts not covered under warranty. Always feel free to reach out to KDD for install help.

With modified lifters and/or modified rocker arms, the enhanced valvetrain geometry can differ greatly from factory, and there isn't always a "one size fits all" approach. While Kill Devil Diesel has spent countless hours honing our product line to be as standardized as possible, there are still variables that must be accounted for. Block deck height, cylinder head thickness, head gasket thickness, pushrod length, valve tip height, camshaft base circle, variations in factory rocker arm geometry, and more, can all affect the installation of any valvetrain components, especially as these tolerances "stack" or interact with one another. When Kill Devil Diesel builds in engine in house, we have a very specific recipe, or build formula/parts combination, and blueprinted machining, combined with our skilled engine building team, to ensure all of the valvetrain geometry is assembled correctly. When customers purchase the individual components to install in their engines, there may be factors out of our control, requiring extra attention to ensure proper function, such as measuring lifter preload, and measuring for proper pushrod length. Kill Devil Diesel has adjustable length pushrod checking tools available for purchase.

Jesel Valvetrain - With Jesel Rockers and Jesel solid roller lifters for Ford Powerstroke, available exclusively through Kill Devil Diesel, the pushrods will require a 5/16 ball pushrod. It is recommended that the pushrod length is checked with the adjuster 1-2 turns from being completely bottomed out. Pushrod length should be measured with the desired valve lash, if proper lash is achieved 1-2 turns from being completely bottomed out, the pushrod length is correct. If proper lash is achieved at more than 3 turns out, the engine will need longer pushrods, if proper lash is achieved at less than 1 turn out, or if the pushrods are too long to achieve any lash, it will require shorter pushrods.

Johnson Hydraulic Roller Lifters – Johnson recommends .035" lifter preload (+/- .010"). This is checked with the head torqued, head gasket in place, camshaft on the base circle of the cam (180 degrees of camshaft rotation away from peak lift) Slowly tighten the rocker arm assembly until "zero lash" is achieved (no vertical "play" in the pushrod). Place a dial indicator on the tip of the rocker arm and tighten the rocker down to proper torque spec, measuring the preload via dial indicator. If greater than .050" preload is achieved the engine will require shorter pushrods, if less than .020" preload is achieved, longer pushrods will be required. If using Jesel rockers, .035" preload should be achieved 1-2 turns out from the rocker arm adjuster being completely bottomed out.

NOTE: Factory Ford rockers use a 3/8 ball pushrod, Johnson lifters have a dual radius pushrod seat to accept 5/16 or 3/8 ball, Jesel rocker arm adjusters accept 5/16 ball adjusters, KDD has custom made 3/8 ball adjusters available on request.

PLEASE CALL KILL DEVIL DIESEL WITH ANY QUESTIONS, FAILURE TO PROPERLY INSTALL VALVETRAIN COMPONENTS CAN RESULT IN SEVERE ENGINE DAMAGE NOT COVERED UNDER WARRANTY. 252-725-1222 / SALES@KILLDEVILDIESEL.COM