INSTALLATION INSTRUCTIONS FOR HARLEY-DAVIDSON 1200cc "74" FI-FLH

1.) CYLINDER PREPARATION AND SUGGESTED CLEARANCES:

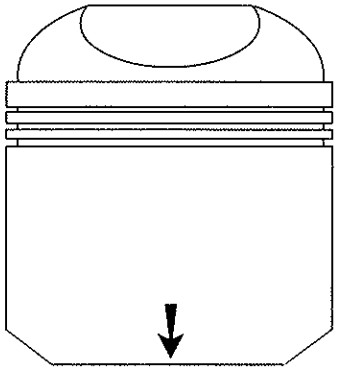
Most cylinders must be bored and honed before piston kit can be assembled. **All Harley-Davidson cylinders must be assembled on *torque plates* during the boring and honing operation. Failure to use torque plates will result in cylinder bore distortion. A piston ring compressor must be used to install the piston and ring assembly into the cylinder. Improper installation will cause engine damage.**

WISECO pistons have a special diamond turn finish. **To check for clearances measure pistons across thrust faces 90° from the wrist pin hole at the base of piston.** Recommended procedure is to check piston size and hone cylinder for the desired clearance. Each cylinder should be deburred on top and generously chamfered on bottom for ease of piston and ring installation. Finish hone with a 280-400 grit hone. A good cross hatch finishing pattern is important for best results. **CAUTION: Wash cylinder assembly with soap and water, then swab with new # 10 oil on a clean rag until all tendency of rag discolor is gone. Washing in solvent will not remove the abrasive from finished cylinder walls.**

SUGGESTED PISTON TO CYLINDER WALL CLEARANCE FOR HARLEY-DAVIDSON 1200cc "74" FL-FLH PISTONS IS:

Wiseco Series Part # 4012 - .003"

(Excessive clearances will cause severe engine noise)



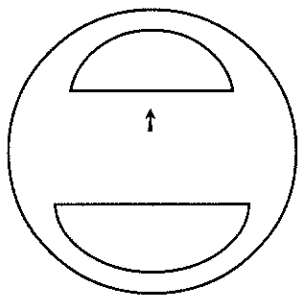
1.) To check for clearances measure pistons across thrust faces 90° from the wrist pin hole at the base of piston as illustrated.

These clearances are for normal operation and conditions. Improper timing, and abusive operating conditions can cause higher than normal piston temperatures. Under these conditions minimum piston clearances may not be sufficient. Pistons used for racing or special applications may require additional clearances.

MINIMUM RING END GAP IS .004" FOR EVERY INCH OF BORE SIZE.
Example: 3.000" Bore = .012" Ring End Gap

PISTON INSTALLATION

2.) THE **ARROW** ON TOP OF A WISECO PISTON SHOULD POINT TOWARDS EXHAUST SIDE OF CYLINDER AFTER INSTALLATION. PISTON TO CYLINDER FIT IS CRITICAL. FOLLOW ADVISED CLEARANCES GIVEN ABOVE FOR BEST RESULTS. ALWAYS USE NEW GASKETS AND TORQUE CYLINDER HEAD TO MANUFACTURER'S SPECIFICATIONS. IN SOME INSTANCES CYLINDER HEADS MAY HAVE TO BE RE-TORQUED AFTER BREAK-IN TO INSURE PROPER HEAD GASKET SEAL.



Top View of Piston

3.) MODIFIED CAMS OR ALTERED CAM TIMING:

Most Wiseco pistons are machined with valve pockets that are deeper and larger than stock. These pockets provide adequate valve clearance for most modified or high lift cams. **It is very important that valve to piston clearance be checked with every modified cam installation.** This is necessary due to the many variations in cam profile and the tuners selected cam timing.

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