

REV B 9-08

## INSTRUCTION SHEET FOR PART NO.4000A/4000B

No.**4000A** - 7.440 Length with Std. .792 I.D. wrist pin for 1991 to 1999 single cam Big Twin.

No.4000B - 7.440 Length with Std. .927 I.D. wrist pin for 1991 to 1999 single cam Big Twin.



PARTS AVAILABLE SEPARATELY				
_	No.	Qty.	Description	JIMS Part
	1	1	Rod Assembly, Female w/.927 I.D. Pin Bushing	40001A-1B
	1	1	Rod Assembly, Female w/.792 I.D.Pin Bushing	40001A-1
	2	1	Rod Assembly, Male w/.927 I.D. Pin Bushing	4002A-1B
			Rod Assembly, Male w/.792 I.D. Pin Bushing	4002A-1
	3	1	Nut, Crank Pin, Set (pack of 2)	23969-83
	4	1	Crankpin	23961-80A2
	5	1	Rollers w/ Retainers	3999
	6	1	Key, Crank	2187
	7	1	Instruction Sheet	4000A-IS

## ROD ASSEMBLY

JIMS® new connecting rods start out as solid certified aerospace quality 4340 moly steel. Each rod is heat treated, magnafluxed, shot peened and completely inspected with a hardness test for each rod, from there each rod goes back into the CNC Mill to bore the rod race bores to the wrist pin bushing bores to within .0003" of each other at a 32 bore finish for the best possible bushing and race adhesion. The wrist pin bushing oiling hole has been optimized for better lubrication of wrist pins, and an increase in the strength. We chose H-Beam for stability and strength for both drag racing and any street application over the standard I beam rods. Each rod set has JIMS rod races and wrist pin bushings installed and are fit to Harley-Davidson® factory specifications. JIMS H-beam rods are available in a 7.440 length.

The crank pin used in this rod assembly is a JIMS No.23961-80A2. This pin is made of premium aerospace steel. The pin has 2 hole oiling for the bearings and has a 16 micron finish or better. The threads on these pins have a special process to make them withstand greater torque stress. The crankpin nuts are JIMS No. 23969-83. These are a close tolerance nut that can be torqued 50% beyond factory torque specs when using our pin. The bearing assembly is quality American made Torrington bearings and cages.

Follow H-D<sup>®</sup> instructions for installing the rod assembly and truing the flywheels. JIMS<sup>®</sup> rod assembly has been honed for street application, therefore they require a new engine run-in of at least 1000 miles. Note: If rod assembly is used in a racing application were new engine run-in is not possible, rods must be honed an additional .0005".

- All connecting rods will need to be checked for case clearancing (Including JIMS<sup>®</sup> rods) when most stroker kits are installed in stock cases. They could also have interference in other case applications S&S, STD, Delkron, etc. JIMS<sup>®</sup> suggest to check all specific areas. Do not remove any material from rods. (See Reminder) (remove only enough material to make clearance). (See Reminder)
- To check rod to rod clearance assemble crankpin and bearings in rods, then measure the closest possible distance between the inside of male pin bushing to the female wrist pin bushing as shown in Fig.1. No.4000A is 1.920" No,4000B is 2.107". These rods will have adequate clearance for up to 5 1/4" stroke.
- 3. Female rod, crankpin end to inner flywheel rim. Minimum clearance .060 (remove material from flywheel to make clearance).
- 4. Wrist pin end of both male and female rod to flywheel outside edge. Minimum clearance .060 (remove material from flywheel edge to make clearance).
  OFF-SET RADIUS
  TOWARDS FEMALE ROD
- **5.** Wrist pin end to crankcase and cylinder minimum clearance .060 (remove material from crankcase or cylinder to make clearance.)

**REMINDER:** When clearance is required, don't remove material from connecting rod, make all adjustments on the areas that the rods contact i.e., shaft nuts, flywheel edge, case, cylinder, etc.

**ASSEMBLY:** Rods are to be assembled with the offset in the front rod (male) to face rear rod (female). **See Fig.1**.

**BALANCING:** JIMS<sup>®</sup> rods are stronger and heavier than stock rods, and the flywheels and nuts may need clearance, therefore JIMS recommends rebalance of the flywheels.

**FITMENT:** JIMS rods are fit to H-D specifications for both wrist pin busing sizes, .792" I.D. is the same as Evo H-D specifications and .927" I.D. is the same as H-D T/C specifications. Rod race bores don;t require any honing for use on standard Evo B.T. crankpins with standard rod rollers.

**Note:** It is the Engine builders responsibility to check and confirm the running clearances when installing any of JIMS products. To check rod to rod clearance assemble crankpin and bearings in rods, then measure the closest possible distance between the inside of male wrist pin bushing to the inside of the female wrist pin bushing as shown in **Fig.1**. No.4000A is 1.920" No.4000B is 2.107". These rods will have adequate clearance for up to 5 1/4" stroke.



## "From the Track... To the Street!"

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