



## INSTRUCTION SHEET FOR TOOL # 1003

### ROD RACE TOOL

USE ON ALL SINGLE CAM BIG TWINS, 45'S & XL'S



#### REMOVING RACES:

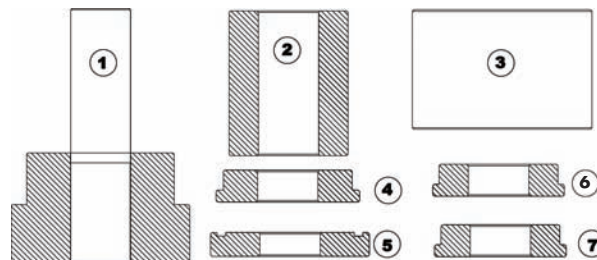
1. Refer to H-D® service manual for specifications.
2. To remove old rod races from Big Twin rods and XL Sportster, use #4 collar (see parts list).
3. With sleeve #3 set over base #1, place collar #4 (the blue one) into the center of the female rod with the small diameter of the collar to the outside of the rod.
4. Slip both the rod and collar over stud pilot on base. Place pushing pilot plug #2 over stud #1 and on top of collar #4.
5. Place the assembly into press on a flat surface. You will be pressing the race from the inside out.
6. Press on pushing plug #2 until the old race is clear of rod.
7. Turn the rod over and press out the other old race from the inside out.
8. Press out the male rod race from either side using collar #4, with sleeve #3 set over base #1.
9. Now is the time to check rods for cracks and for the size of race the rod will require.
10. Do the same as above for 45" but use collar #6 for removing races.

#### INSTALLING RACES:

1. Refer to H-D® Service Manual for specifications.
2. Doing the female rod first, slip collar #4 into the race with the chamfer facing away from the collar. Apply a press fit lube to the race bore, slip collar and the new race into the center of rod, you will be pressing from the inside out. Place the whole assembly over base #1 with sleeve #3 and collar #5 with the groove on the bottom in your press.
3. Press the new race into the rod until they bottom on collar #5.
4. To press in the male race, turn over collar #5 so groove is facing up. Apply a press fit lube to the bore of the rod. Place collar #4 inside race with the chamfer facing the rod.
5. Place the rod, race and collar over base #1. Make sure collar #5 has the groove facing up. Press new race into rod until it bottoms on collar #5. The groove will center the race on Big Twin rods only. For XL Sportsters make sure collar #5 is facing groove side down.
6. Now is the time to lap the races using JIMS® rod lapping tool #96740-36.

#### PARTS AVAILABLE SEPARATELY

No.	Qty.	Description	Part No.
1	1	TOOL BASE AND STUD PILOT	1003-0
2	1	ROD RACE TOOL PUSH PLUG	1003-6
3	1	2-1/4" SLEEVE	1003-2
4	1	ROD RACE TOOL COLLAR 1.80 74 & 80	1003-4
5	1	ROD RACE TOOL COLLAR 1.990 74 & 80	1003-5
6	1	ROD RACE TOOL COLLAR 1.740 45 INCH	1003-8
7	1	ROD RACE TOOL COLLAR 1.650 45 INCH	1003-7



*Performance Parts For Harley-Davidson® Motorcycles*