



## Instruction Sheet For Tool No.1095



### Pan and Shovel tappet blocks

Use on Big Twin 1953-84  
Use on Big Twin 1948-52, when using solid tappets.

These blocks are designed to accommodate a gross valve lift of .550 at the valves leaving a clearance of .035 roller to block freeplay. Use with No. 18522-53 tappet or JIMS® new 18522-53PG tappets (Please note, if using a cam with a higher lift, a simple modification to tappet blocks is all that is needed). Caution: you still need to follow cam manufacturers guidelines.

1. Make sure your H.D.® cannot start. Remove ground wire from frame. Have a clean working environment, including clean rags and a clean engine.
2. If not already removed, remove old blocks and tappets. If using the same lifters mark for location and roller rotation. Check lifter to block bore per H.D.® Service Manual. If using JIMS® lifters you will have about .0007" to .0012" clearance.
3. Remove old gasket material and keep all foreign material out of tappet block holes.
4. Wash all parts and inspect per H.D.® Service Manual install all new seals and gaskets.
5. Check for correct thread pitch and style of tappet screws pertaining to year of application.
6. NOTE: These blocks are designed to accommodate a gross valve lift of .550 at the valve, this is about .375 at the cam. You will need at least .035 roller to block clearance with any cam being used. To check for this do the following: With a tappet in rear block, no base gasket, one tappet at a time, cam lobe for the one you are checking at the highest point of lift. Slide the assembly into the motor ( Note: if the tappet block flange does not touch the motor case during this trial assembly, remove material as needed to give the necessary .035" of up and down tappet movement ). With the assembly still in motor snug, with JIMS® tool #33443-84, to about 30 in./lb. ( Note: Use JIMS® tool #33443-84 only if your case has 1/4-20 threads ). Now check again for .035" free movement. Do the same for the other tappets. If more clearance is needed remove the least amount of material from the tappet blocks as needed (Note: Make sure to remove any burrs after modifying the blocks, wash and air dry ). Also check tappet to tappet clearance on cams with small base circles.
7. Apply a light film of motor oil or sealer to both sides of gasket, install on blocks. Apply assembly lube to tappets and rollers. Slip tappets into blocks, you can hold tappets in place with your fingers or a rubber band works well.
8. With both blocks in place ( Note: putting both blocks into motor case will keep the screws from falling into case ). Install JIMS® tool #33443-84 if your case has 1/4-20 mounting holes. Lube tool and screw into the hole inside and center through block into case. Tighten to 30 in./lbs. Apply lube to the other three screws and torque to 30 in./lbs. Install the other block the same way. Remove tool and install last lubed screw and finish torquing to 120 in./lb. in a criss cross pattern at 30 in./lbs. increments.
9. This is a good time to clean the tappet filter. See H.D.® Service Manual.
10. Install the front pushrod and covers first. Apply assembly lube to top and bottom ends and threads of pushrods.
11. Follow the instructions for the pushrods and lifters you are using.

CAUTION: Wear safety glasses. Excessive force may damage the parts !  
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