

12051 Rivera Rd., Santa Fe Springs, CA 90670 USA (562) 945-7578 / 1-888-ITS NIKS FAX (562) 698-7029

## KA-968, KA-5042,<br/>KA-5263,KAWASAKI KX-80 to 100ccBIG BORE SLEEVE KIT 1986-2000GENERAL MACHINING and INSTALLATION

Thank you for your interest in **L.A. SLEEVE** and **ProCross** Genuine Racing Parts products, and congratulations on purchasing your Big Bore bolt-on kit!

## Before beginning any installation procedures, please be sure to check that all parts ordered are in the shipping carton.

**Parts required for this application:** Be sure the model <u>year</u> matches parts' <u>year</u> application. Sleeve: Part No. KA-968 ('86-87), KA5042 ('88-90), KA5263 ('91-97), KA5351B ('98-00) Piston Kit (includes rings, clips, wrist pin): Part No.W967PS Gasket Kit (head and base): Part No. GS968 ('86- 87), GS5042 ('88-90), GS5144 ('91-97), GS5351 ('98-00)

These tips are intended to be a guide for installing sleeves into cylinders. There are always exceptions to the rule and care must be taken on special applications.

- 1. Always check to make sure cylinder has not been previously decked.
- 2. Cylinder must be bored to accept the new sleeve.
- 3. Recommended interference fit for cylinder sleeve to aluminum bore is .004.
- 4. A countersink at the top of the cylinder is needed to accept the flanged sleeve.
- 5. Heat the cylinder to 400<sup>o</sup> for 45 minutes to an hour. The sleeve should drop right in if the barrel is heated properly. You will have 5 to 10 seconds to line up the ports.
- 6. Under a hydraulic press, keep pressure on the sleeve as the cylinder cools.
- 7. Milling the top deck of the cylinder always adds a quality touch. A caution here, some cylinders may not be able to have the top surface decked.
- For 2-stroke cylinders, blending or matching the ports is vital to the performance of the engine.
  Blend cylinder to match the sleeve ports, not visa-versa.
  The top of the exhaust port should be blended.
  Mismatched ports will cause an undue power loss.
- Bore cylinder to fit the piston. Allow .003 clearance measured 90 degrees from wrist pin hole at the skirt bottom or largest diameter. Ring end gap should be .010 to .012. Arrow on top of the piston should point towards exhaust side of the cylinder after installation.
- 10. Mill cylinder head following specifications shown on the drawing and open head to accept a new piston. Make sure piston does not hit the cylinder head before finalizing installation.
- 11. Make sure all parts are clean before installing to the cycle.
- 12. Preferred compression is 145 to 155 lbs.





12051 Rivera Rd., Santa Fe Springs, CA 90670 USA (562) 945-7578 / 1-888-ITS NIKS FAX (562) 698-7029

## KA-968, KA-5042,KAWASAKI KX-80 to 100ccKA-5263,BIG BORE SLEEVE KIT 1986-2000KA-5351BTECH NOTES and INSTALLATION INSTRUCTIONS

The KX-80 to 105cc Big Bore kit is a relatively easy bolt-on kit at about the cost of a new cylinder. The kit is designed to use with a stock carb and pipe.

- 1. Your cylinder has been bored to extract its maximum potential. Because it has been set up to close tolerance, a very important break in procedure is required. This is critical to increase performance without sacrificing reliability. Please follow our guide lines closely.
- 2. After you receive your cylinder from L.A. SLEEVE inspect it immediately for possible freight damage. If you have any questions, contact L.A. SLEEVE.
- 3. Wash your cylinder and piston in dish soap and water, scrubbing with a paper towel. Spray immediately with a liberal amount of WD-40, let stand.
- Put a couple of drops of oil on the wrist pin bearing and install piston. The arrow on piston top goes toward exhaust port. If there is no arrow, ring locating pins (end gap) go toward intake side of cylinder. Note: Clips <u>do not</u> interchange with O.E.M. clips.
- 5. If your cylinder has a bridged exhaust we recommend you drill lubricating holes at this time. See separate instructions.
- 6. Assemble the cylinder with new gaskets, do not use any type of silicone or gasket sealer. Do not put any oil on the piston or cylinder, the WD-40 that was left in the cylinder is enough lubricant. Look through the reed cage hole as you're sliding the cylinder down on the piston and check to see that the ring end gap is centered on pins, adjust now with a small screwdriver if necessary.
- 7. Torque the head nuts per factory recommendation. Generally nuts that use a twelve millimeter socket wrench torque to 22 ft. lbs.
- 8. Be sure air filter is clean. It is recommended you replace the old filter with a new one.
- 9. We recommend using orange hi-temp silicone to seal exhaust flange.
- Add glycol based anti-freeze, mixing 50/50 with water.
- 10. Re-install carb and exhaust system.
- 11. Install a factory recommended spark plug. Richen jetting two sizes on the main jet and one clip on the needle (lower clip raise needle). Use your normal mixture of gas/oil, we recommend 32:1. If your motor was set up for a 50/50 mixture of pump gas/race gas, we recommend you use straight race gas for the first 5 gallons.
- 12. See recommended break-in procedure on next page.
- 13. After break-in the compression should be 145 to 155 lbs.

<u>Needle adjustment</u>: This affects primarily the mid-range of your powerband. If your cycle bogs or hesitates when accelerating, try richening your needle by lowering the needle clip one position at a time. If the cycle sputters when accelerating, try leaning the needle by raising the clip.

<u>Main jet</u>: This jet primarily affects \_ throttle to full throttle of the top end of your powerband. First, try running the cycle at full throttle for a couple of minutes. Remove your spark plug and look at the insulator tip. If the insulator is white and/or blistered, then you are too lean. A black and wet insulator means you are too rich. A light brown color indicates the proper main jet. Remember, it is better to start off with too rich of a main jet and work your way down. Too lean of a jet could cause engine damage. A rich main jet will cause the cycle to sputter and not clean out on the top end.