Polaris RZR 1000 XP/ XP4 1,065cc Big Bore Kit Instructions

We would like to congratulate you on your purchase of your Sparks Racing 1,065cc Big Bore Cylinder Kit. You have officially joined the Sparks Performance Products family which is full of power hungry enthusiasts and racers like yourself! We pride ourselves on providing our customers industry leading performance, durability, and customer service.

This cylinder kit is intended to be installed by a qualified mechanic/ engine builder. Engine assembly is a complex task and should not be taken lightly. We have supplied these instructions for the sole purpose of explaining the unique features of this cylinder kit. DO NOT use these instructions as the sole source of information regarding the assembly of your engine. It is the builder's responsibility to identify any factory torque specifications or bearing sizes. It is the builder's responsibility to check and ensure all the parts associated with this kit are clean, sized, and ready for assembly. We surface the cylinder and size the pistons to the cylinder prior to shipping. There is a ring end-gap specification sheet supplied with the pistons.

****Read these instructions carefully and completely before attempting installation

Bill of Materials

- 96mm Cylinder
- 96mm piston set, includes 2 pistons, ring sets, wrist pins, and 4 cir-clips
- Head & base gasket
- 2 dowel pins

1. If you are preforming the installation of this kit with the engine installed in the car, it is much easier with two people to simplify cylinder installation. We recommend the clutches and inner clutch cover be removed to allow for better access to the cylinder area.
2. Install the pistons on the rods making sure the "EXT" markings on the top of the pistons are towards the exhaust side of the engine.
3. In most cases, the stock dowel pins remain in the cases when the cylinder is removed. If one or both of the base dowels are stuck in the existing cylinder, heating the cylinder may be required to remove them.
4. Install the supplied base gasket and existing dowels onto the engine cases.
5. Install the cylinder onto the pistons. We have found it to be easiest with the pitons at the same elevation about the cases. It is VERY important to take great care during this step to help ensure the rings are not damaged during cylinder installation.
6. Cycle the pistons in the cylinder until to confirm the engine spins freely and no ring damage has occurred.
7. Use the supplied dowel pins between the cylinder head and cylinder ONLY. The Sparks Racing head gasket is much thicker than stock and requires the longer dowels.
8. When you're installing the head gasket, it is extremely important the figure-eight "combustion ring" is seated in the middle layer of the head gasket (if you spread the layers apart, you can see the relief where is sits). You may use a small amount of liquid gasket or spray adhesive to ensure

the rings stays in place throughout the installation of the cylinder head.****Incorrect placement of this ring will result is extreme damage to the cylinder and head****

9. Torque the head bolts to 55 ft/lbs using the factory torque pattern. ****Using this torque spec and stock hardware is only recommended for naturally aspirated engines with moderate compression ratios. We recommend the use of head studs torqued to the stud manufacturer's recommendation on any high compression or boosted applications****
10. The water neck & gasket supplied with the kit will go on your new cylinder instead of the one off your factory cylinder
11. The remaining steps of the installation will be to factory specifications or covered elsewhere

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