## Instruction 510-0381 10-26-2015

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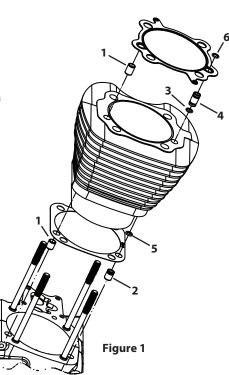
#### Introduction

This kit includes two different types of cylinder dowel pins. The six o-rings included are all identical. There are two dowels which go between the cylinder and the cylinder head, that have o-ring grooves in both ends. There are two dowels that go between the crankcase and the cylinder, which have only one o-ring groove. The dowel pins in this kit with o-ring grooves go in the front most and rear most positions of the crankcase and cylinders: the rear of the rear cylinder and the front of the front cylinder.

#### Installation Procedure

- 1. If crankcases or cylinders have stock dowels installed in these positions, they must be removed. Leave the existing inner crankcase to cylinder and cylinder to head dowel pins in place. See #1 in Figure 1,
- 2. Lightly lubricate the crankcase to cylinder dowels (one o-ring groove) #2 with engine oil, and install in the front-most and rear-most dowel holes of the crankcase with the plain end of the dowel in the crankcase. The o-ring groove will be about .100" above the base gasket surface.
- 3. Install one o-ring **#3**, on each of the cylinder to head dowels (two o-ring grooves) **#4**, and lubricate lightly with engine oil.
- 4. Insert one dowel into the outer dowel hole in the top of each cylinder with the o-ring in the hole. Clean off any excess oil.

- 5. During engine assembly, install the base gaskets first. Install one o-ring **#5** on each of the crankcase to cylinder dowels after the base gaskets are in place.
- 7. Install the cylinders in the crankcase. The o-rings on the dowel pins will be inside the cylinder oil return holes.
- 8. Install the head gaskets. Then install the remaining o-rings **#6** on the outer cylinder to head dowels **#4**.
- 9. Install the cylinder heads and tighten head bolts to specified torque. O-rings will be inside cylinder head oil return holes.



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