



## IPD DIFFERENTIATION BULLETIN

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### *IPD Differentiation:* **IPD's New 3406E/C15 Head Gasket** (Part Number: 2245122SP)

IPD takes pride in innovation, and with the help of our customers over the years this has led to several product improvements. The latest of these innovations is the release of our new 2245122SP Head Gasket.

The 3406E & C15 engine lines have a long history of updates and improvements, and sometimes these revisions lead to components that are not completely compatible with each other. In this case, changes to the cylinder block and cylinder head have led us to develop the 2245122SP Head Gasket.

#### **History**

The earlier 3406E used the 1539653 head gasket, which has an integral seal molded into the head gasket at the oil drain back passage (see photo). This gasket worked well, as long as you had the original style block and cylinder head.

An engineering change to the cylinder block led to an OEM release of a new heavier cylinder head gasket (2245122), and new independent molded (1422329) oil drain back seal (see photo). Unfortunately, there is no clear engine serial number break indicating when these blocks came into use. Customer issues resulted since the newer design head gasket and seal cannot be used on the older style block because there is no structure in the block to support the molded 1422329 seal, the drain back passage will not seal properly.

The next change involves the cylinder head, which relates back to the previously mentioned 1539653 & 2245122 head gaskets (continued on next page).



The original 3406E cylinder head deck surface was flat between the cylinders, and supported the lighter weight 1539653 head gasket. In comparison, C15 cylinder heads have a “relief cut” in the casting between the cylinders (see photo).



As the C15 engines gained in popularity, the OEM began using these “relief cut” heads in their exchange program for both 3406E & C15 engines. This presented a problem for engine owners that had the older style blocks.

### **Issue**

If the 1539653 head gasket (made with a lighter 3 layer material) is used in an older cylinder block with “relief cut” head, it will on occasion pull away from the cylinders and move up into the void caused by the “relief cut” in the cylinder head. Also, the new heavier 2245122 head gasket cannot be used because the older cylinder block does not support the molded 1422329 drain back seal.

### **Solution**

To help resolve these issues, IPD developed an improved gasket that will work in place of both the 1539653 & 2245122 gaskets. **The new 2245122SP gasket incorporates the heavier 5 layer material of the 2245122, improved fire ring material, and has the integral seal molded into the head gasket! This creates a “single head gasket solution” no matter which combination of cylinder block or cylinder head you have.**

The integral seal molded into IPD’s 2245122SP head gasket seals the drain back passage for the older style block; and, with the use of the 1422329 molded seal on the newer style blocks, gives a double

method of sealing. The five layer material in the 2245122SP is denser (approx. 1/3 heavier) than the material used in the 1539653, and can bridge the “relief cut” without deformation of the gasket around the cylinders. IPD’s 2245122SP is an innovative improvement over the standard 1539653 & 2245122 gaskets, and will be released first into IPDStyle 1-2-3™ gasket kits, and later into the remainder of the gasket kits for these engines.



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