# Crankshaft Caution For 2006-2017 Dodge/Chrysler 2.4L Engines

The AERA Technical Committee offers the following crankshaft caution for 2006-2017 Dodge/Chrysler 2.4L engines. This caution is expressed to engine builders when crankshaft replacement is required or anticipated. Current service information only shows specifications for the original “World Engine” crankshaft.

Beginning with the 2013 model year a new “Tigershark” engine series was created and the crankshaft was redesigned for enhanced engine performance. Although the two crankshafts appear similar at first glance as shown in Figure 1 below, significant differences exist, rendering the crankshafts non-interchangeable. The newer “Tigershaft” crankshaft has 5 MM larger connecting rod journals and the thrust bearing location was moved from the 3rd journal to the 2nd journal. Refer to the chart below to determine which crankshaft is being serviced.


**Figure 1. World Crank Top, Tigershark Bottom**

**World Engine: 2006-2017**

| Rod Journal Diameter | Grade | Main Journal Diameter | Grade | Thrust |
|---|---|---|---|---|
| 1.8884-1.8886” (47.966-47.972 MM) | 1 | 2.0466-2.0468” (51.985-51.988 MM) | 0 | 3 |
| 1.8882-1.8884” (47.960-47.966 MM) | 2 | 2.0465-2.0466” (51.982-51.985 MM) | 1 | 3 |
| 1.8880-1.8882” (47.954-47.960 MM) | 3 | 2.0464-2.0465” (51.979-51.982 MM) | 2 | 3 |
| | | 2.0463-2.0464” (51.976-51.979 MM) | 3 | 3 |
| | | 2.0462-2.0463” (51.973-51.976 MM) | 4 | 3 |

**2013 Tigershark Engine:**

| Rod Journal Diameter | Grade | Main Journal Diameter | Grade | Thrust |
|---|---|---|---|---|
| 2.0853-2.0855” (52.966-52.972 MM) | 1 | 2.0466-2.0468” (51.985-51.988 MM) | 0 | 2 |
| 2.0850-2.0853” (52.960-52.966 MM) | 2 | 2.0465-2.0466” (51.982-51.985 MM) | 1 | 2 |
| 2.0848-2.0850” (52.954-52.960 MM) | 3 | 2.0464-2.0465” (51.979-51.982 MM) | 2 | 2 |
| | | 2.0463-2.0464” (51.976-51.979 MM) | 3 | 2 |
| | | 2.0462-2.0463” (51.973-51.976 MM) | 4 | 2 |

It should also be noted that original equipment engines are fit with “select fit” bearings for optimum bearing oil clearance. Both crankshaft designs have five main bearing choices and three rod bearing choices.