CRANKSHAFT INSPECTION

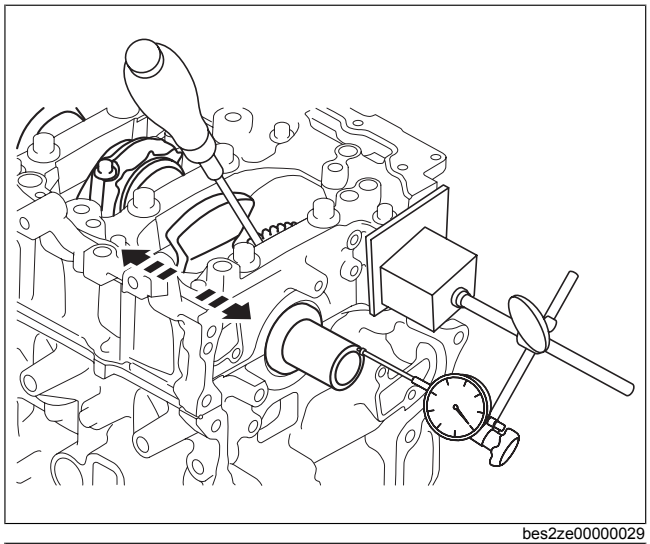
id011000502500

1. Measure the crankshaft end play using a dial gauge.
   - If it exceeds the maximum specification, replace the crankshaft or grind the thrust side of crankshaft and use oversize thrust bearing so that the specified end play is obtained.

   Standard crankshaft end play
   0.08—0.29 mm {0.004—0.011 in}

   Maximum crankshaft end play
   0.30 mm {0.012 in}

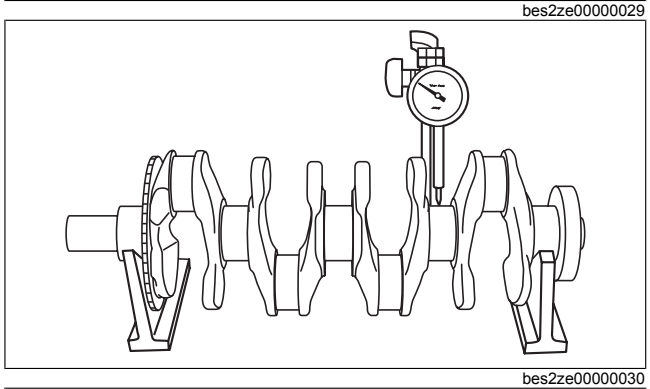
   Thrust bearing size
   STD: 2.130—2.180 mm {0.08386—0.08582 in}
   OS 0.25: 2.255—2.305 mm {0.08878—0.09074 in}



bes2ze00000029

2. Measure the runout of the main journal using a V-block and dial gauge.
   - If it exceeds the maximum specification, replace the crankshaft.

   Maximum main journal runout
   0.10 mm {0.0039 in}



bes2ze00000030

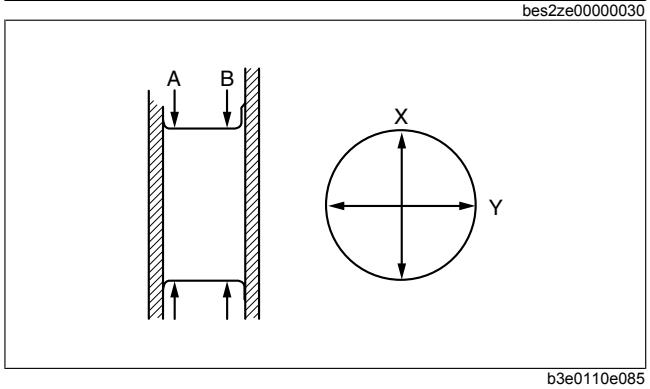
3. Inspect the main journal diameter and crank pin diameter. Measurement positions total four and are in the X and Y directions, at two points (A and B) as shown in the figure.
   - If it is not within the specification or if it exceeds the maximum off-round, grind the journal with an oversized bearing.

   Standard main journal diameter
   51.980—52.000 mm {2.0465—2.0472 in}

   Maximum main journal off-round
   0.005 mm {0.0002 in}

   Standard crank pin diameter
   51.980—52.000 mm {2.0465—2.0472 in}

   Maximum crank pin off-round
   0.005 mm {0.0002 in}



b3e0110e085

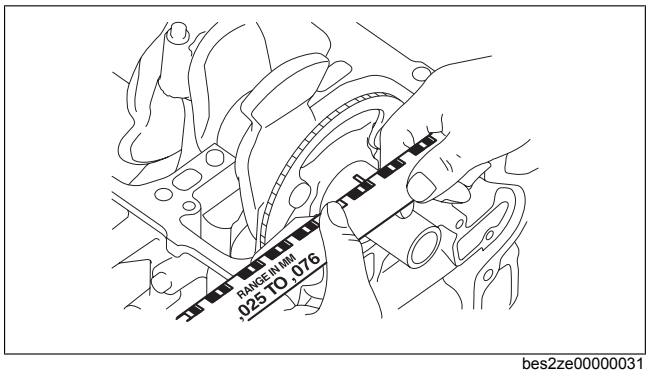
4. Inspect the main journal oil clearance using the following procedure:
   (1) Install the thrust bearing, upper main bearing and crankshaft.
   (2) Position a plastigauge on the journals.
   (3) Install the lower main bearing and lower cylinder block. (See CYLINDER BLOCK ASSEMBLY (I).)
   (4) Remove the lower cylinder block. (See CYLINDER BLOCK DISASSEMBLY (II).)

(5) Measure the main journal oil clearance.
    - If it exceeds the maximum specification, replace the main bearing, or grind the main journal and use oversized bearings so that the specified oil clearance is obtained.

Standard main journal oil clearance
0.016—0.039 mm {0.0007—0.0015 in}

Maximum main journal oil clearance
0.084 mm {0.0033 in}

Main bearing size
STD: 2.500—2.521 mm {0.09843—0.09925 in}
OS 0.25: 2.625—2.628 mm {0.10335—0.10346 in}
OS 0.50: 2.750—2.753 mm {0.10827—0.10838 in}



bes2ze00000031