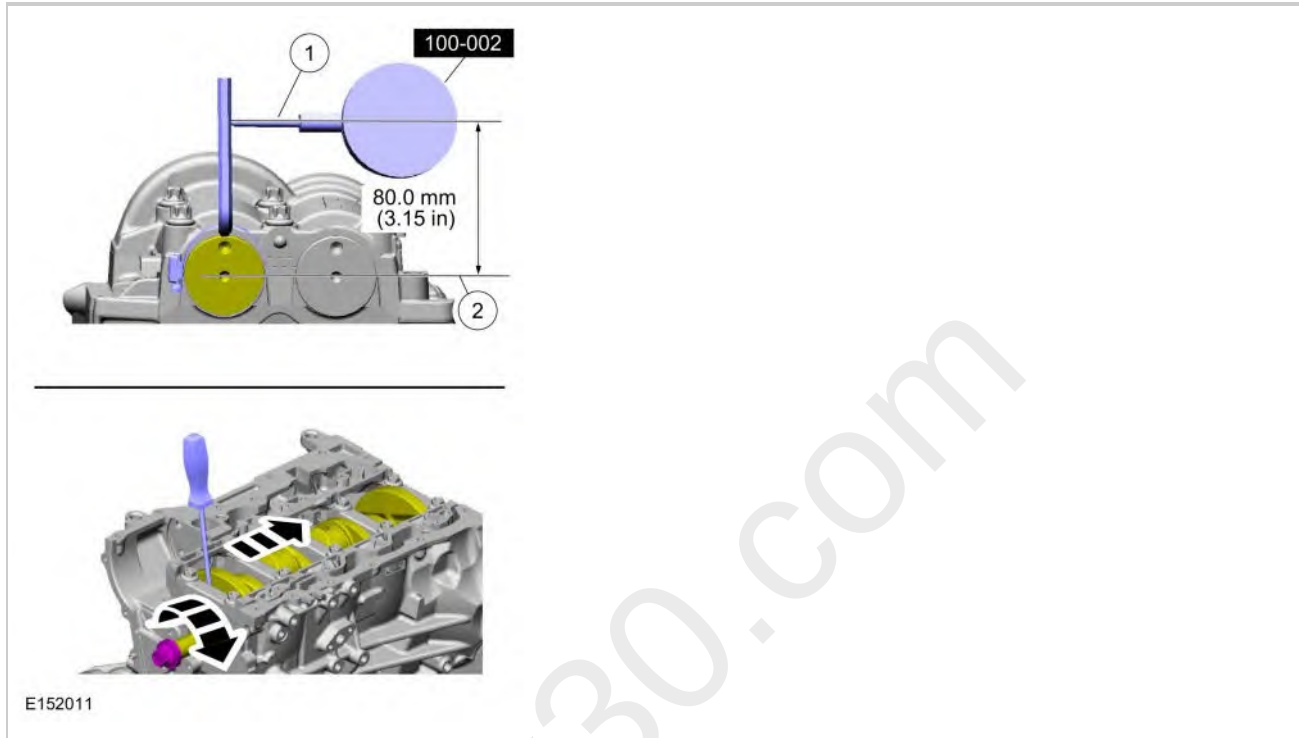


Position the Dial Indicator Gauge with Holding Fixture (1) on the Allen wrench 80 mm (3.149 in) above the driven gear shaft center (2) on the balancer unit.

Rotate the crankshaft clockwise and measure the backlash at all of the following 6 positions: 10 degrees, 30 degrees, 100 degrees, 190 degrees, 210 degrees and 280 degrees.

If the backlash exceeds the specified range of 0.040 to 0.140 mm (0.00157 to 0.0055 in), install a new balancer unit and repeat the procedure.



GENERAL PROCEDURES > VALVE CLEARANCE ADJUSTMENT

Special Tool(s) / General Equipment

Feeler Gauge

Check

1.

Remove the valve cover. Refer to: Valve Cover .

2.

Remove the air cleaner outlet tube. Refer to: AIR CLEANER OUTLET PIPE - 2.3L EcoBoost (231kW/314PS).



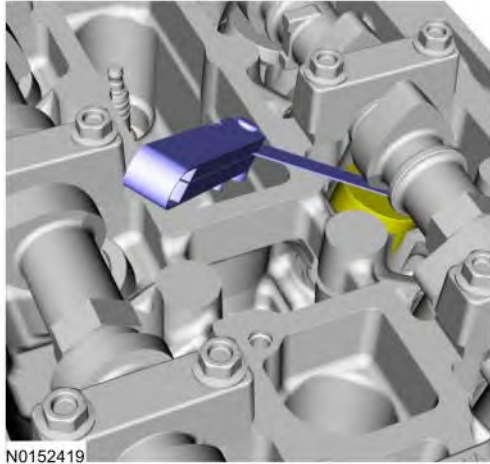
NOTE: Turn the engine clockwise only, and only use the crankshaft bolt.

 **NOTE:** Measure the clearance of each valve at base circle, with the lobe pointed away from the tappet.

3.

Use a feeler gauge to measure the clearance of each valve and record its location.

Use the General Equipment: Feeler Gauge



4.

 **NOTE:** The number on the valve tappet only reflects the digits that follow the decimal. For example, a tappet with the number 0.650 has the thickness of 3.650 mm.

 **NOTE:** Select tappets using this formula: $\text{tappet thickness} = \text{measured clearance} + \text{the existing tappet thickness} - \text{nominal clearance}$.

 **NOTE:** The nominal clearance is:

intake: 0.25 mm (0.0095 in).

exhaust: 0.36 mm (0.0142 in).

 **NOTE:** The acceptable clearances after being fully installed are:

intake: 0.19-0.31 mm (0.007-0.012 in).

exhaust: 0.30-0.42 mm (0.012-0.017 in).