

Valve Clearance Adjustment

Special Tool(s) / General Equipment

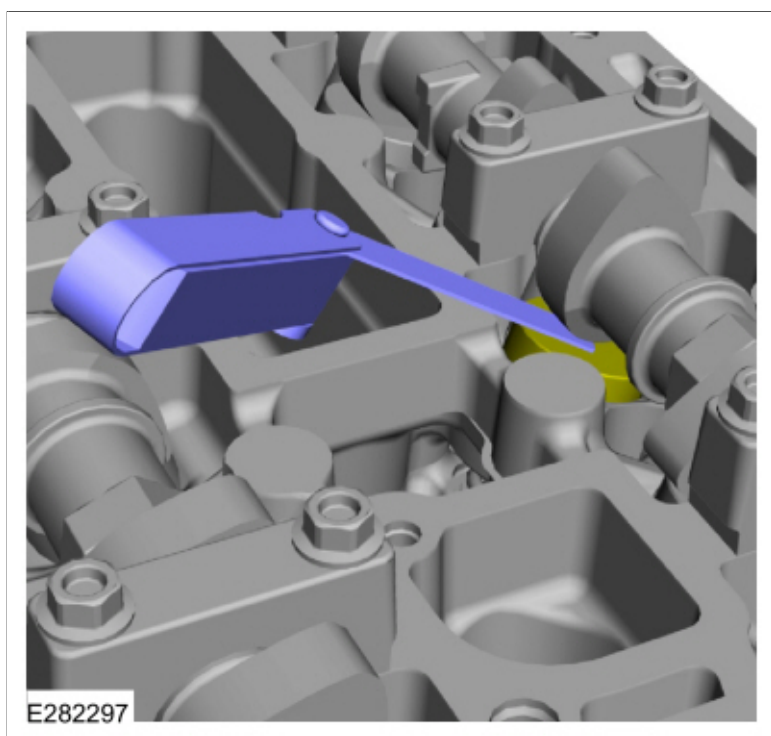
Feeler Gauge

Check

1. Remove the valve cover.
Refer to: [Valve Cover](#) (303-01 Engine - 2.3L EcoBoost (201kW/273PS), Removal and Installation).
2. **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.

Use a feeler gauge to measure the clearance of each valve and record its location.
Use the General Equipment: Feeler Gauge



3. Valve tappet assembly grade chart
 1. Grade
 2. Id Mark
 3. Thickness (mm)

①	②	③		①	②	③
1	N000	3.000		21	N422	3.422
2	N025	3.025		22	N442	3.442
3	N050	3.050		23	N462	3.462
4	N075	3.075		24	N482	3.482
5	N100	3.100		25	N502	3.502
6	N122	3.122		26	N522	3.522
7	N142	3.142		27	N542	3.542
8	N162	3.162		28	N562	3.562
9	N182	3.182		29	N582	3.582
10	N202	3.202		30	N602	3.602
11	N222	3.222		31	N625	3.625
12	N242	3.242		32	N650	3.650
13	N262	3.262		33	N675	3.675
14	N282	3.282		34	N700	3.700
15	N302	3.302		35	N725	3.725
16	N322	3.322				
17	N342	3.342				
18	N362	3.362				
19	N382	3.382				
20	N402	3.402				

E289130

4. **NOTE:** There are two numbers on the valve tappet, one is date code and the other is valve tappet thickness.

NOTE: The date code "R0605" represents the year made (R), the month (06) and the day (05).

NOTE: A tappet with the number N650 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 (0.0075-0.0122 in).
- exhaust: 0.30-0.42 mm (0.0118-0.0165 in).

Select the closest tappet size to the ideal tappet thickness available and mark the installation location.

5. If any tappets do not measure within specifications, install new tappets in these locations.

Adjustment

1. **NOTE:** *The following step is only necessary if adjustment is required.*

Remove the camshafts.

Refer to: [Camshafts](#) (303-01 Engine - 2.3L EcoBoost (201kW/273PS), Removal and Installation).

Copyright © 2019 Ford Motor Company
