

Valve Clearance Adjustment

Special Tool(s) / General Equipment

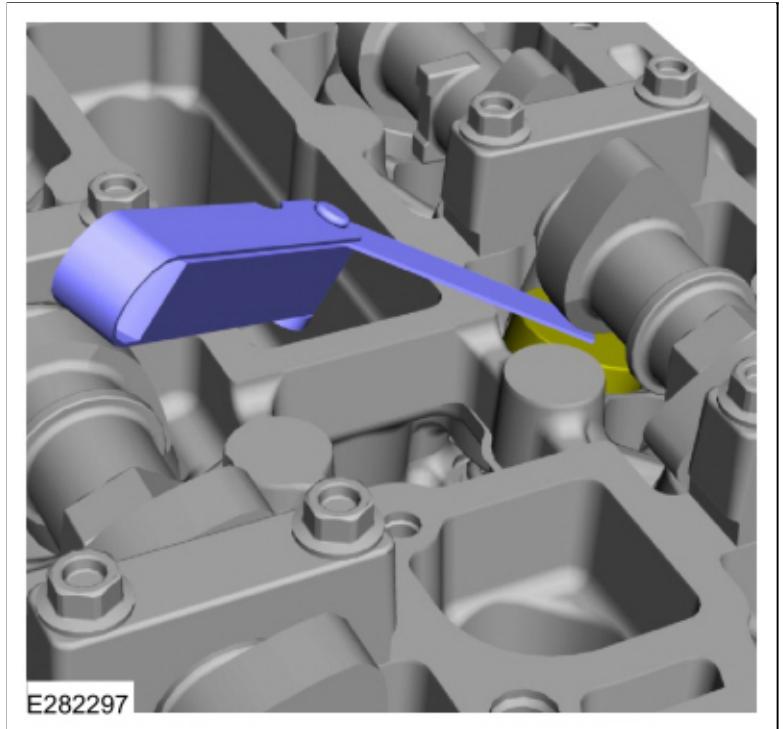
Feeler Gauge

Check

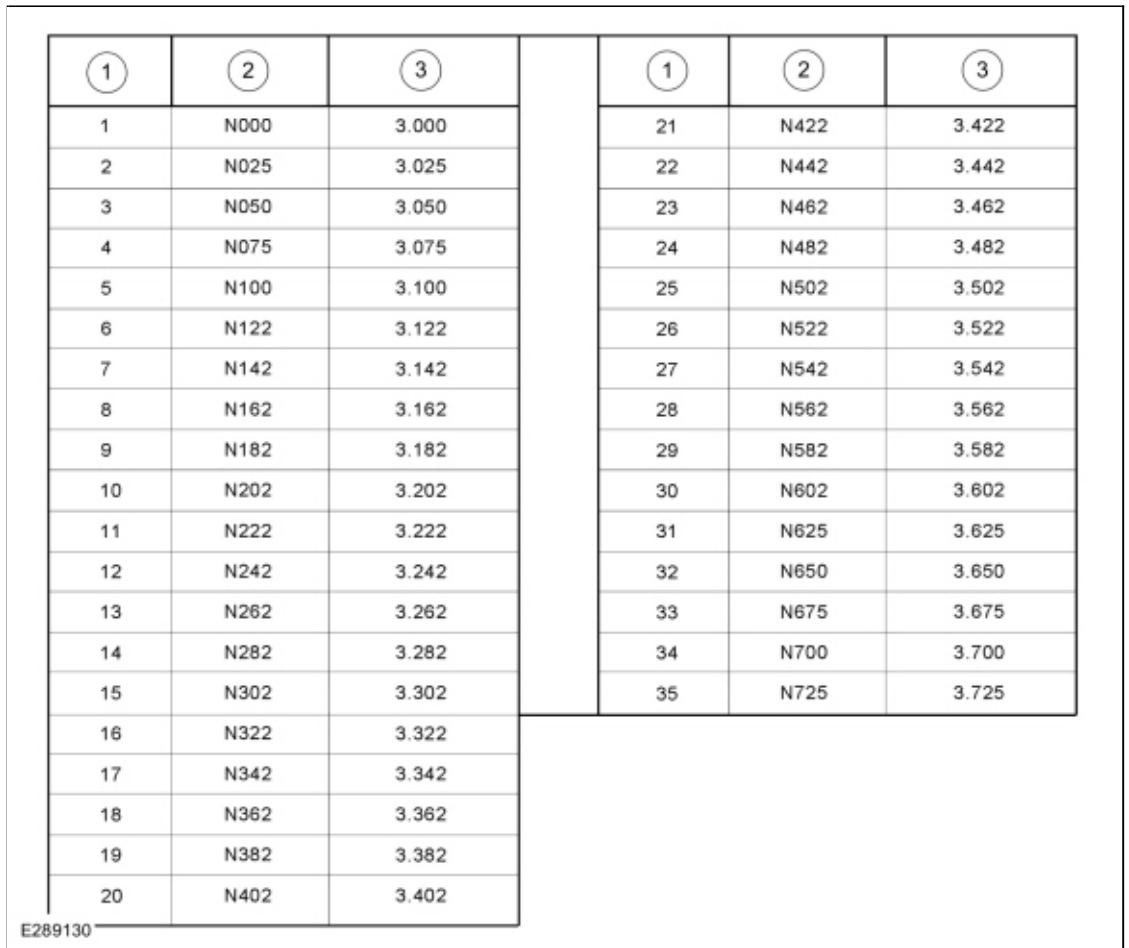
1. Remove the valve cover.
Refer to: [Valve Cover](#) (303-01 Engine - 2.3L EcoBoost (201kW/273PS), Removal and Installation).
2. **NOTE:** Turn the engine clockwise only, and only use the crankshaft bolt.

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	N000	3.000					
2	N025	3.025					
3	N050	3.050					
4	N075	3.075					
5	N100	3.100					
6	N122	3.122					
7	N142	3.142					
8	N162	3.162					
9	N182	3.182					
10	N202	3.202					
11	N222	3.222					
12	N242	3.242					
13	N262	3.262					
14	N282	3.282					
15	N302	3.302					
16	N322	3.322					
17	N342	3.342					
18	N362	3.362					
19	N382	3.382					
20	N402	3.402					

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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: tappet thickness = measured clearance + the existing tappet thickness - 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).

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