

AERA Technical Bulletin

Created By: Maria Beyerstedt
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Valve Lash Adjustment For 2002-2008 Nisan 2.5L QR25DE Engines

The AERA Technical Committee offers the following information regarding valve train adjustment for 2002-2008 Nissan 2.5L QR25DE engines. This information should be considered anytime valve service is performed.

This engine uses a mechanical lash adjuster to allow valve lash adjustment. Although the adjustment may be accomplished by different methods, Nissan Motor Company recommends the following.

ADJUSTMENT

Perform adjustment depending on selected head thickness of valve lifter. The specified valve lifter thickness is the dimension at normal cold temperatures. Ignore dimensional differences caused by temperature. Use the specifications for hot engine condition to adjust.

Unit: mm (in)

	Cold* (reference data)	Hot
Intake	0.24 - 0.32 (0.009 - 0.013)	0.32 - 0.40 (0.013 - 0.016)
Exhaust	0.26 - 0.34 (0.010 - 0.013)	0.33 - 0.41 (0.013 - 0.016)

*: Approximately 20°C (68 °F)

1. Measure and record the current clearance between cam and all lifter locations.
2. Remove camshaft(s).
3. Remove the valve lifters at the locations that are outside the standard.
4. Measure the center thickness of the removed valve lifters with a micrometer.
5. Use the equation below to calculate valve lifter thickness for replacement.

Valve Lifter Thickness Calculation.

$t = t_1 + (C_1 - C_2)$ t = Thickness of replacement valve lifter.

t₁ = Thickness of removed valve lifter.

C₁ = Measured valve clearance.

C₂ = Standard valve clearance.

As an example, Intake: **.36 mm (.0142")**
Exhaust: **.37 mm (.0146")**

Thickness of a new valve lifter can be identified by stamp marks on the reverse side (inside the cylinder). Stamp mark 696 indicates a thickness of **6.96 mm (.2740")**
Available thickness of valve lifter: 26 sizes with a range of **6.96 to 7.46 mm (.2740-.2937")**, in steps of **.02 mm (.0008")**, when assembled at the factory.

6. Install the selected valve lifter.
7. Install camshaft.
8. Manually turn crankshaft pulley a few turns.
9. Check that valve clearances for cold engine are within specifications, by referring to the specified values.

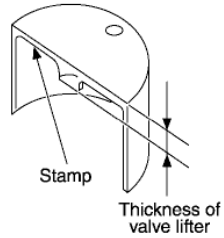
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10. After completing the repair, check valve clearances again with the specifications for warmed engine. Use a feeler gauge to measure the clearance between the valve lifter and camshaft. Make sure the values are within specifications.



KBIA0119E

Thickness mm (In)	Identification mark (Stamp)
6.96 (0.2740)	696
6.98 (0.2748)	698
7.00 (0.2756)	700
7.02 (0.2764)	702
7.04 (0.2772)	704
7.06 (0.2780)	706
7.08 (0.2787)	708
7.10 (0.2795)	710
7.12 (0.2803)	712
7.14 (0.2811)	714
7.16 (0.2819)	716
7.18 (0.2827)	718
7.20 (0.2835)	720
7.22 (0.2843)	722
7.24 (0.2850)	724
7.26 (0.2858)	726
7.28 (0.2866)	728
7.30 (0.2874)	730
7.32 (0.2882)	732
7.34 (0.2890)	734
7.36 (0.2898)	736
7.38 (0.2906)	738
7.40 (0.2913)	740
7.42 (0.2921)	742
7.44 (0.2929)	744
7.46 (0.2937)	746

The AERA Technical Committee

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