

TM2361 - 450DLC Excavator Operation and Tests Engine Valve Lash (Clearance) Check and Adjust

Engine Valve Lash (Clearance) Check and Adjust



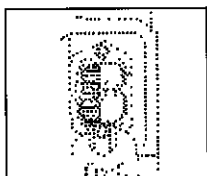
CAUTION:

To prevent accidental starting of engine while performing valve adjustments always disconnect negative (-) battery terminal.

1. Disconnect negative (-) battery cable.
2. Remove lower valve cover from engine. See Lower Valve Cover Remove And Install . (Group 0400.)

NOTE:

Glow plugs may be removed to ease crankshaft rotation.



3. TX1002653-UN: Timing Mark

Rotate crankshaft until T/C mark on flywheel is aligned with top mark on flywheel housing.

4. Check for clearance in cylinder No. 1 or cylinder No. 6 rocker arms. The cylinder with clearance in both rocker arms is at TDC (top dead center).



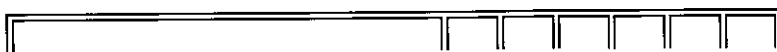
5. TX1011102-UN: Valve Clearance

LEGEND:

- 1 - Rocker Arm
- 2 - Camshaft

Measure valve lash (clearance) at camshaft lobe and rocker arm with a feeler gauge as shown in table.

-: Valve Clearance



Cylinder No.	1	2	3	4	5	6
Valve	I	E	I	E	I	E
Intake (I)						
Exhaust (E)						
Cylinder No. 1 at TDC (top dead center)	X	X	X		X	X
Cylinder No. 6 at TDC (top dead center)			X	X		X

Item	Measurement	Specification
Intake and Exhaust Valve (Cold)	Clearance	0.40 mm 0.017 in.



6. TX1011103-UN: Valve Clearance Adjusting Screw

LEGEND:

- 1 - Rocker Arm
- 3 - Bridge
- 4 - Rocker Arm Adjusting Screw Nut
- 5 - Rocker Arm Adjusting Screw
- 6 - Bridge Adjusting Screw
- 8 - Bridge Adjusting Screw Nut

If valve lash (clearance) needs to be adjusted, Loosen nuts (4, 8) on rocker arm and bridge adjusting screws. Loosen bridge adjusting screw (6).



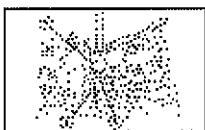
7. TX1011102-UN: Valve Clearance

LEGEND:

- 1 - Rocker Arm
- 2 - Camshaft

Using a feeler gauge, set valve lash (clearance) by turning the rocker arm adjusting screw.

Item	Measurement	Specification
Intake and Exhaust Valve (Cold)	Clearance	0.40 mm 0.017 in.



8. TX1011106-UN: Rocker Arm Adjusting Screw

LEGEND:

- 1 - Rocker Arm
- 3 - Bridge
- 5 - Rocker Arm Adjusting Screw

Hold rocker arm adjusting screw (5) and tighten rocker arm adjusting nut.

Item	Measurement	Specification
Rocker Arm Adjusting Screw Nut	Torque	78 N·m 58 lb-ft



9. TX1011104-UN: Bridge Adjusting Screw

LEGEND:

- 1 - Rocker Arm
- 3 - Bridge
- 7 - Valve Stem

Using a feeler gauge, adjust valve lash (clearance) by turning bridge adjusting screw. At this point the opposite end of the bridge should be raised.

10. Hold bridge adjusting screw and tighten bridge adjusting nut.

Item	Measurement	Specification
Intake and Exhaust Valve (Cold)	Clearance	0.40 mm 0.017 in.
Bridge Adjusting Screw Nut	Torque	78 N·m 58 lb-ft

11. Rotate crankshaft 360° until T/C mark on flywheel is aligned with top mark on flywheel housing. Adjust remaining valves as shown on chart.
12. Install lower valve cover from engine. See Lower Valve Cover Remove And Install . (Group 0400.)
13. Connect negative (-) battery cable.

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