



M-6049-SD73A and M-6050-SD73A
7.3L Engine Family
Cylinder Head

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PRIOR TO INSTALLATION READ THESE INSTRUCTION COMPETELY
For questions, Call the FORD PERFORMANCE Techline 1-800-367-3788

Please visit <https://www.performanceparts.ford.com> for warranty information

OVERVIEW:

This instruction sheet contains important information regarding the specifications for FPP part M-6049-SD73A and M-6050-SD73A.

CONTENTS/BILL OF MATERIALS:

Service Part Number	Description	Qty
M-6049-SD73A	Right Cylinder Head Assembly	1
	Or	
M-6050-SD73A	Left Cylinder Head Assembly	1

SPECIFICATIONS

Item	Specification
Head gasket surface flatness	0.025 mm (0.001 in) in any 25 mm (1 in) x 25 mm (1 in) area; 0.05 mm (0.002 in) in any 150 mm (6 in) x 150 mm (6 in) area; 0.1 mm (0.004 in) overall
Combustion chamber volume	3.8718 in ³ (63.447 cm ³)
Rocker arm ratio	1.8:1
Valve arrangement (front to rear) — LH	I-E-I-E-I-E-I-E
Valve arrangement (front to rear) — RH	E-I-E-I-E-I-E-I
Valve face runout — intake	0.002 in (.05 mm)
Valve face runout — exhaust	0.002 in (.05 mm)
Valve face angle — intake	45.5 –46 °
Valve face angle — exhaust	50.5 –51 °
Valve guide bore diameter	0.314 –0.315 in (7.975 –8.005 mm)
Valve head diameter — intake	2.160 –2.170 in (54.87 –55.13 mm)
Valve head diameter — exhaust	1.664 –1.674 in (42.27 –42.53 mm)
Valve seat width — intake	0.067 –0.079 in (1.7 –2 mm)
Valve seat width — exhaust	0.051 –0.063 in (1.3 –1.6 mm)
Valve seat angle — intake	44.5 –45.5 °
Valve seat angle — exhaust	49.5 –50.5 °
Valve stem diameter — intake	0.3123 –0.3131 in (7.933 –7.953 mm)
Valve stem diameter — exhaust	0.3119 –0.3126 in (7.921 –7.941 mm)
Valve stem-to-guide clearance — intake	0.0009 –0.0028 in (.022 –.072 mm)

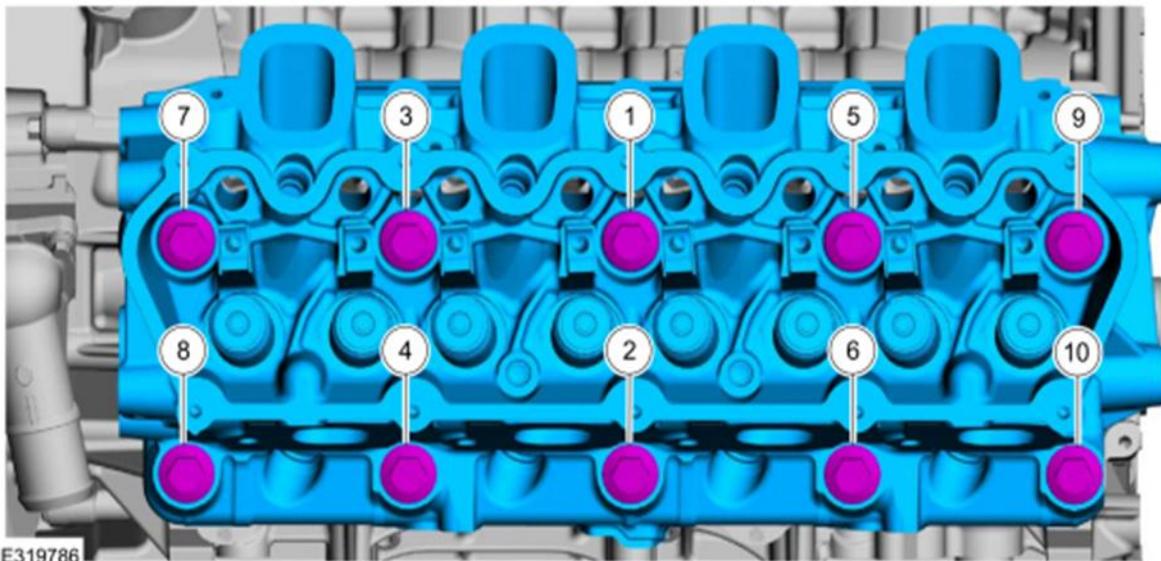
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Item	Specification
Valve stem-to-guide clearance — exhaust	0.0013 –0.0033 in (.034 –.084 mm)
Valve spring free length — intake	2.6791 in (68.05 mm)
Valve spring free length — exhaust	2.8209 in (71.65 mm)
Valve spring installed height	2.3622 in (60 mm)
Valve spring installed pressure — intake	78.46 –86.55 lb (349 –385 N)
Valve spring installed pressure — exhaust	98.02 –107.01 lb (436 –476 N)
Valve spring compression pressure — intake	274.27 –299.90 lb (1,220 –1,334 N) @ 1.819 in
Valve spring compression pressure — exhaust	265.72 –289.10 lb (1,182 –1,286 N) @1.756 in

RECOMMENDED TORQUE VALUES

- Left Cylinder Head Installation:
 Lightly oil head bolt threads. Install the LH cylinder head and hand start the new bolts.
Torque:
 Stage 1: 22 lb.ft (30 Nm)
 Stage 2: 44 lb.ft (60 Nm)
 Stage 3: 74 lb.ft (100 Nm)
 Stage 4: Tighten an additional : 90°
 Stage 5: Tighten an additional : 90°



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2. Right Cylinder Head Installation:

Lightly oil head bolt threads. Install the RH cylinder head and hand start the new bolts.

Torque:

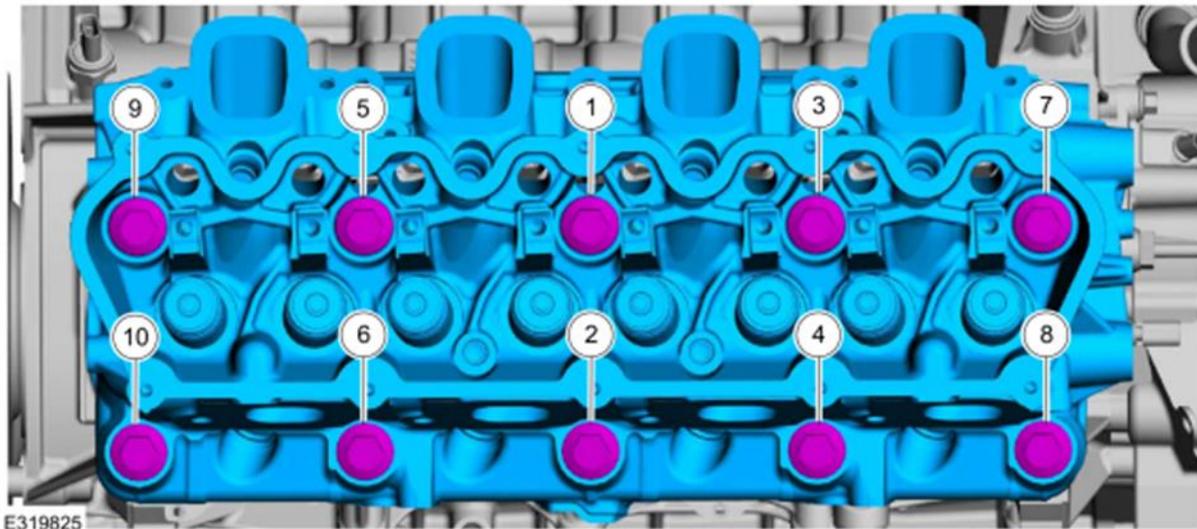
Stage 1: 22 lb.ft (30 Nm)

Stage 2: 44 lb.ft (60 Nm)

Stage 3: 74 lb.ft (100 Nm)

Stage 4: Tighten an additional : 90°

Stage 5: Tighten an additional : 90°



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