

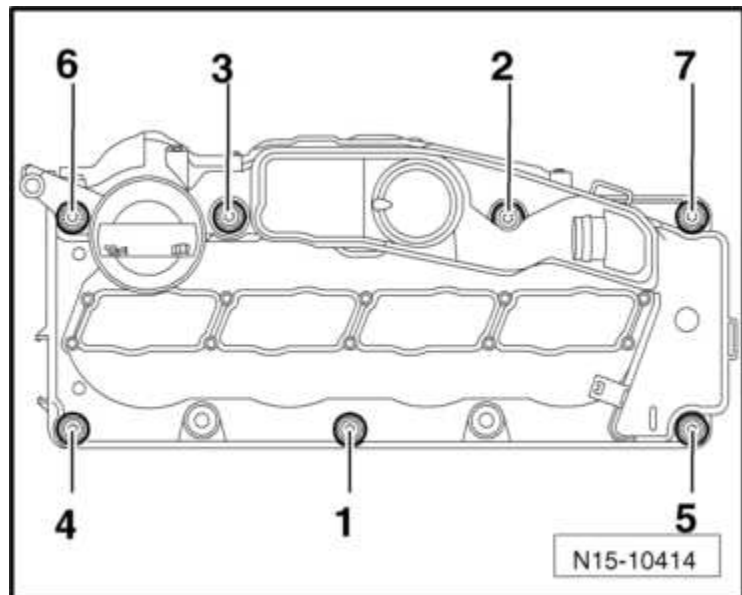
## Fastener Tightening Specifications

Component	Fastener Size	Nm
Adapter to Cylinder Head Bolt	-	10
Camshaft Position Sensor to Cylinder Head Bolt	-	10
Camshaft Gear to Camshaft Bolt	-	20 + 45°
Center Toothed Belt Guard to Lower Toothed Belt Guard Bolt <sup>1</sup>	-	10
Coolant Pump to Cylinder Block Bolt	-	15
Crankshaft Toothed Belt Gear to Crankshaft Bolt <sup>1</sup>	-	120 + 90°
Engine Mount Bracket to Cylinder Block Bolt <sup>1</sup>	-	40 + 180°
Fuel Rail to Cylinder Head Cover Bolt	-	22
Heat Shield to Cylinder Head Cover Bolt	-	5
High Pressure Pump Toothed Belt Gear to Hub Bolt <sup>1</sup>	-	20 + 90°
Hub to Camshaft Bolt	-	100
Lifting Eye to Cylinder Head Bolt/Stud Bolt	-	25
Protective Plate to Rear Toothed Belt Guard Bolt	-	5
Rear Toothed Belt Guard to Cylinder Block Bolt <sup>2</sup>		
	-	10 <sup>1</sup>
	-	20
Sealing Cap to Cylinder Head Cover Bolt	-	5
Tensioning Plate to Cylinder Head Cover Nut	-	10
Toothed Belt Idler Pulley to Cylinder Block Bolt <sup>1</sup>	-	50 + 90°
Toothed Belt Idler Roller to Cylinder Block Bolt/Nut	-	20
Toothed Belt Tensioner to Cylinder Block Nut	-	20 + 45°
Vacuum Pump to Cylinder Head Bolt	-	10
Vibration Damper to Crankshaft Bolt <sup>1</sup>	-	10 + 90°

- <sup>1</sup> Always replace.
- <sup>2</sup> For bolt clarification, refer to -items 14 and 15- in the → [Chapter „Toothed Belt Overview“](#).

### Cylinder Head Cover Bolt Tightening Sequence and Specification

- Tighten the bolts in sequence -1 through 7-hand tight.
- Tighten the bolts in sequence -1 through 7-to 10 Nm.



### Cylinder Head Bolt Tightening Sequence and Specification

**1 - Tighten the bolts using a torque wrench:**

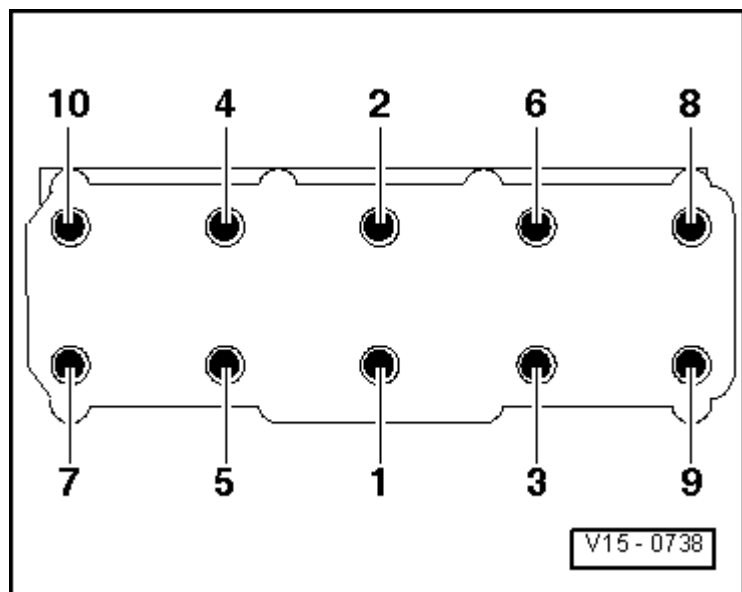
First pass = 30 Nm

Second pass = 50 Nm

**2 - Tighten the bolts further using a ratchet:**

Third pass = an additional 90° (1/4) turn

Final pass = an additional 90° (1/4) turn



### Bearing Frame Bolt Tightening Sequence and Specification

- Tighten the bolts by hand in sequence -1 through 24-
- The bearing frame must be in contact with the entire contact surface of the cylinder head.
- Tighten bearing frame bolts in sequence -1 through 24- until they are seated.  
Tightening specification: 10 Nm

