

TORQUE SPECIFICATIONS—EXCEPT ROTARY ENGINES

All readings in ft. lbs.

Year	Engine	Cylinder	Main	Rod	Crankshaft	Flywheel	Manifold		Spark	Lug							
	Displacement						Engine	Head			Bearing	Bearing	Damper	Intake	Exhaust	Plugs	Nut
	Liters (cc)						ID/VIN	Bolts			Bolts	Bolts	Bolts	Bolts	Bolts		
1997	1.5 (1489)	Z5	⑬	40-43	22-25	116-122	71-76	14-18	14-16	11-16	65-87						
	1.8 (1839)	BP	56-60	40-43	35-36	116-122	71-76	14-18	29-34	11-16	65-87						
	2.0 (1991)	FS	⑬	⑭	⑮	116-122	71-76	14-18	④	11-16	65-87						
	2.3 (2255)	KJ	⑰	⑱	⑲	116-122	45-49	14-18	14-18	11-16	65-87						
	2.5 (2496)	KL	⑰	⑲	⑲	116-122	45-49	14-18	14-18	11-16	65-87						
1998	1.5 (1489)	Z5	⑬	40-43	22-25	116-122	71-76	14-18	12-17	11-16	65-87						
	1.8 (1839)	BP	56-60	40-43	35-36	116-122	71-76	14-18	29-34	11-16	65-87						
	2.0 (1991)	FS	⑬	⑭	⑮	116-122	71-76	14-18	15-20	11-16	65-87						
	2.3 (2255)	KJ	⑰	⑱	⑲	116-122	45-49	14-18	14-18	11-16	65-87						
	2.5 (2496)	KL	⑰	⑲	⑲	116-122	45-49	14-18	14-18	11-16	65-87						
1999-00	1.6 (1597)	ZM	⑳	NA	NA	116-122	71-76	14-18	15-20	11-16	65-87						
	1.8 (1839)	BP	56-60	40-43	35-36	116-122	71-76	14-18	29-34	11-16	65-87						
	1.8 (1839)	FP	⑳	NA	NA	116-122	71-76	14-18	15-20	11-16	65-87						
	2.0 (1991)	FS	⑬	⑭	⑮	116-122	71-76	14-18	15-20	11-16	65-87						
	2.3 (2255)	KJ	⑰	⑱	⑲	116-122	45-49	14-18	14-18	11-16	65-87						
	2.5 (2497)	KL	⑰	⑲	⑲	116-122	45-49	14-18	14-18	11-16	65-87						

NA: Not Available

- ① Tighten in 3 steps:
Step 1: 14 ft. lbs.
Step 2: Turn each bolt 90° in sequence
Step 3: Turn each bolt 90° in sequence
- ② Tighten in 3 steps:
Step 1: 14 ft. lbs.
Step 2: Turn each bolt 90° in sequence
Step 3: Turn each bolt 45° in sequence
- ③ Tighten in 2 steps:
Step 1: 22 ft. lbs.
Step 2: Turn each bolt 90°
- ④ SOHC: engine - 11-17 ft. lbs.
DOHC engine - 10-13 ft. lbs.
- ⑤ 323 - 35-38 ft. lbs.
MX3 - 35-37 ft. lbs.
- ⑥ Tighten in 3 steps:
Step 1: 17-19 ft. lbs.
Step 2: Turn each bolt 90° in sequence
Step 3: Turn each bolt 90° in sequence
- ⑦ Tighten in sequence in 3 steps:
Step 1: Inner bolts-17-18 ft. lbs.
Outer bolts-13-15 ft. lbs.
Step 2: Inner bolts:
Nos. 1 & 2 - Turn each bolt 70°
No. 4 - Turn each bolt 80°
Outer bolts:
Turn each bolt 60°
Step 3: Repeat Step 2.
- ⑧ Tighten in 3 steps:
Step 1: 16-19 ft. lbs.
Step 2: Turn each bolt 90°
Step 3: Turn each bolt 90°
- ⑨ Tighten in 3 steps:
Step 1: 12.7-16.2 ft. lbs.
Step 2: Turn each bolt 90°
Step 3: Turn each bolt 90°
- ⑩ Tighten in 2 steps:
Step 1: 12.7-16.2 ft. lbs.
Step 2: Turn each bolt 90° in sequence
- ⑪ Tighten in 2 steps:
Step 1: 16.3-19.8 ft. lbs.
Step 2: Turn each bolt 90°
- ⑫ Nut - 15-20 ft. lbs.
Bolt-12-16 ft. lbs.
- ⑬ Step 1: 16 ft. lbs.
Step 2: Tighten each bolt 90°
Step 3: Repeat Step 2
- ⑭ Step 1: 16 ft. lbs.
Step 2: Tighten each bolt 90°
- ⑮ Step 1: 19 ft. lbs.
Step 2: Tighten each bolt 90°
- ⑯ Nuts: 15-20 ft. lbs
Bolts: 12-16 ft. lbs.
- ⑰ Step 1: 17-19 ft. lbs.
Step 2: Tighten each bolt 90°
Step 3: Repeat Step 2
- ⑱ Step 1: Inner bolts: 17-19 ft. lbs.;
Step 2: Outer bolts: 13.5-15.5 ft. lbs.
Step 3: Inner bolt Nos. 1-3: Tighten each bolt 70°
Step 4: Inner bolt No. 4: Tighten each bolt 80°
Step 5: Outer bolts: Tighten each bolt 60°
Step 5: Repeat Step 3-5
- ⑲ Step 1: Inner bolts: 17-18 ft. lbs.; Outer bolts: 13-15 ft. lbs.
Step 2: Inner bolt Nos. 1-3: Tighten each bolt 70°
Step 3: Inner bolt No. 4: Tighten each bolt 80°
Step 4: Outer bolts: Tighten each bolt 60°
Step 5: Repeat Step 2
- ⑳ Step 1: Inner bolts: 16 ft. lbs.
Step 2: Tighten each bolt 90°
Step 3: Repeat step 2