

05-220 Removal and installation of camshaft

Timing at 2 mm valve lift

Engine	Camshaft code number ¹⁾	Intake valve		Exhaust valve	
		opens after TDC	closes after BDC	opens before BDC	closes before TDC
617.950 ²⁾	00 08 ⁴⁾	with new timing chain			
		11.5°	13.5°	21°	19°
		with used timing chain (from approx. 20 000 km)			
		13.5°	15.5°	19°	17°
617.950 ³⁾ 617.951 617.952	05 ⁴⁾	with new timing chain			
		9°	15°	27°	16°
		with used timing chain (from approx. 20 000 km)			
		11°	17°	25°	14°

1) Camshaft code number is punched into rear end of camshaft.

2) ^(USA) up to model year 1979.

3) model year 1980.

4) Camshaft made of chilled cast iron.

Valve clearance	with engine cold (approx. 20 °C)	with engine warm (60 °C ± 15 °C)
Intake	0.10 ¹⁾	0.15 ¹⁾
Exhaust	0.35	0.40

1) 0.05 mm higher during lasting outside temperatures below -20 °C.

Data

	Camshaft code number	00	05, 08
Permissible runout of center bearing journal and camshaft sprocket seat when mounting camshaft in outer bearing journals	Camshaft sprocket seat 2nd bearing point 3rd bearing point	0.020 0.030 0.025	0.025 0.030 0.030
Scleroscope hardness of cams		70-82	64-75

Tightening torques

	Nm
Nuts for cylinder head cover	15
Camshaft bearing bolts (hex. socket cylinder head bolts)	100
Camshaft bearing bolts (double hex. socket cylinder head bolts)	1st stage 40 2nd stage 70 3rd stage 90° 4th stage 90°