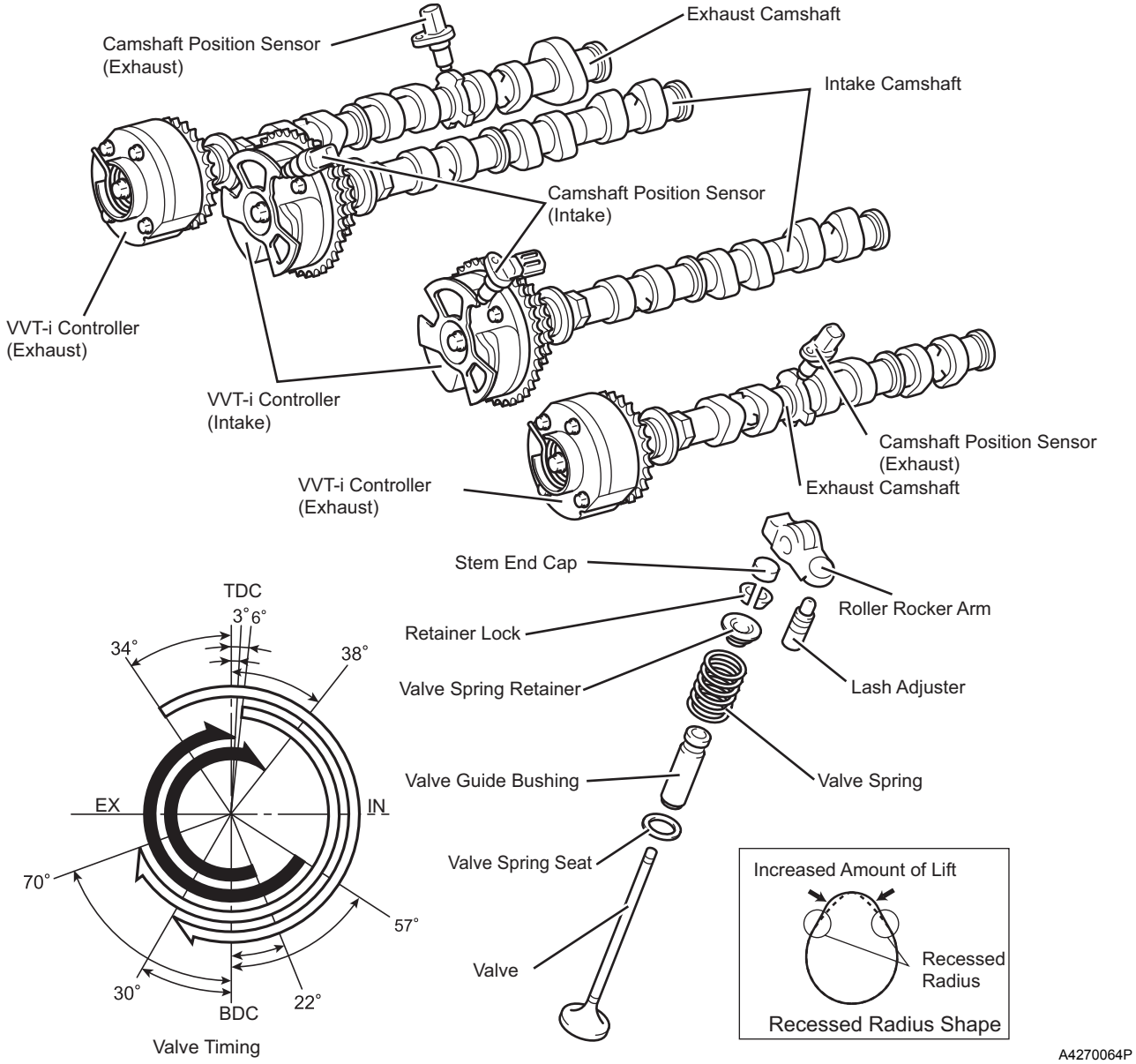
EG

Valve Mechanism

- A Dual VVT-i (Dual Variable Valve Timing-intelligent : continuously variable intake and exhaust valve timing mechanism) system is used to control the intake camshaft and the exhaust camshaft to an optimal valve timing in accordance with the driving conditions.
- The camshafts are made of alloyed cast iron. Their cams are induction hardened and their surfaces are finished with a higher precision to improve wear resistance and reduce friction.
- Roller rocker arms are used in the valve train in order to dramatically reduce friction between the cams and the sliding surfaces to improve fuel economy. In addition, hydraulic lash adjusters are used, making valve clearance adjustments unnecessary and facilitating service.
- Along with the use of the roller rocker arms, the cam profile has been shaped with recessed radii. This increases the amount of valve lift near the beginning of the opening of the valve and near the end of the closing of the valve, in order to further increase power output.



Camshaft

	Intake	Exhaust
Cam Lift Amount [mm (in.)]	5.99 (0.236)	6.14 (0.242)
Cam Lobe Width [mm (in.)]	15.35 (0.604)	14.1 (0.555)

Valve

	Intake	Exhaust
Overall Length [mm (in.)]	105.65 (4.159)	111.5 (4.390)
Face Diameter [mm (in.)]	34.5 (1.358)	29.0 (1.142)
Stem Diameter [mm (in.)]	5.5 (0.216)	←

Valve Spring

Wire Diameter [mm (in.)]	3.3 (0.130)
Coil Inner Diamet [mm (in.)]	18.0±0.2 (0.709±0.08)
Free Length [mm (in.)]	46.51 (1.831)

Roller Rocker Arm

- The rocker arm is made compact and lightweight with a stamped steel arm with built-in needle bearings. The roller is supported by needle roller bearings that dramatically reduce friction at the sliding area, which contributes to fuel economy.
- An oil delivery pipe system is used for supplying oil to the roller rocker arms. This system positively supplies oil from above the camshaft to the lubrication area to ensure reliability.