Print Exit

6AR-FSE ENGINE MECHANICAL ENGINE UNIT DETAILS VALVE MECHANISM

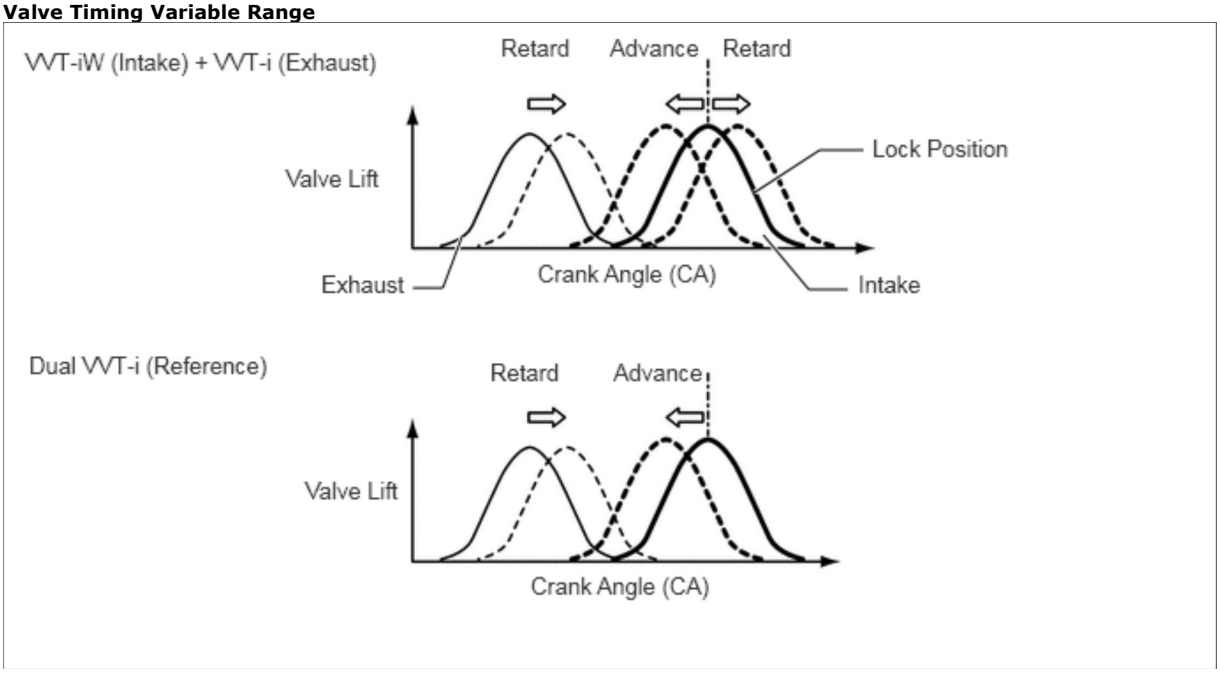
CONSTRUCTION

a. A high-expansion cycle (Atkinson cycle) is used to improve heat efficiency.

b. On the intake side, Variable Valve Timing-intelligent Wide (VVT-iW), which is provided with an intermediate lock mechanism that optimally controls the intake camshaft (camshaft) to the valve timings according to driving conditions, is used.

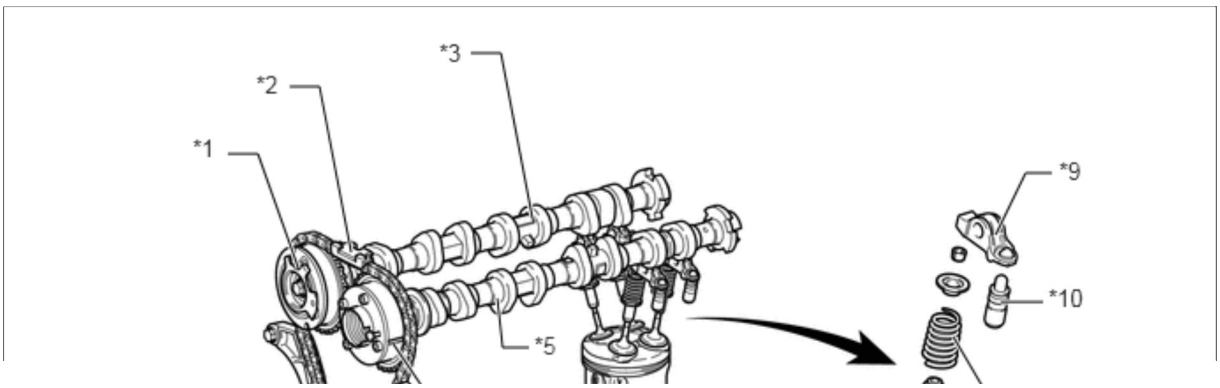
c. On the exhaust side, Variable Valve Timing-intelligent (VVT-i), which optimally controls the exhaust camshaft (No. 2 camshaft) to the valve timings according to driving conditions, is used.

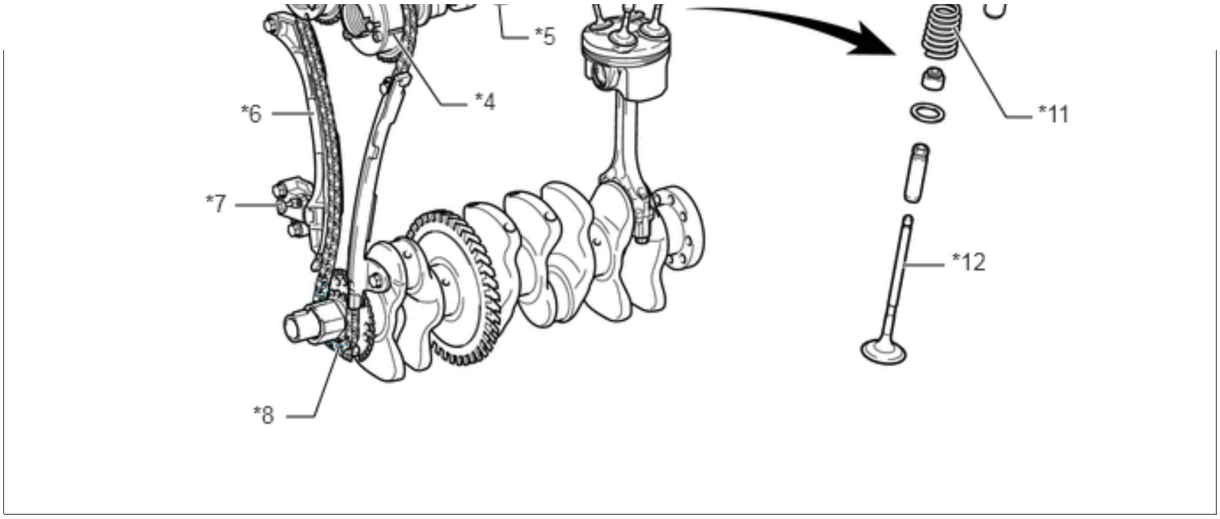
Valve Timing Variable Range



d. The No. 1 valve rocker arm sub-assembly is used as a valve mechanism and by achieving size reduction while drastically reducing the amount of friction that occurs between the sliding parts and cams, low fuel consumption is achieved. Also, an oil pressure type valve lash adjuster assembly is used to make valve clearance adjustment unnecessary in consideration of serviceability.

e. A valve spring (inner compression spring), whose upper portion is shaped like a beehive, is used to reduce inertial mass. As a result, the load on the valve spring (inner compression spring) and friction are reduced.





*1	Camshaft Timing Gear Assembly	*2	Timing Chain Guide
*3	Intake Camshaft (Camshaft)	*4	Camshaft Timing Exhaust Gear Assembly
*5	Exhaust Camshaft (No. 2 Camshaft)	*6	Chain Tensioner Slipper
*7	No. 1 Chain Tensioner Assembly	*8	Chain Sub-assembly
*9	No. 1 Valve Rocker Arm Sub-assembly	*10	Valve Lash Adjuster Assembly
*11	Valve Spring (Inner Compression Spring)	*12	Valve

Valve Timing