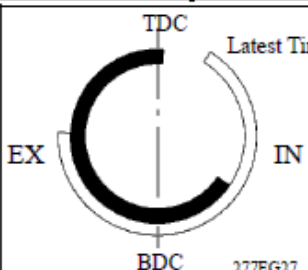
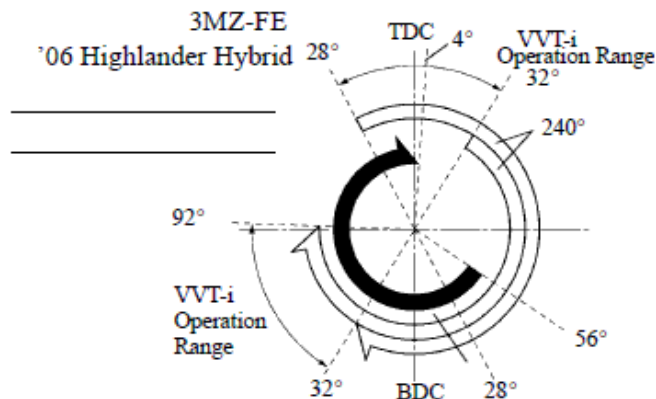
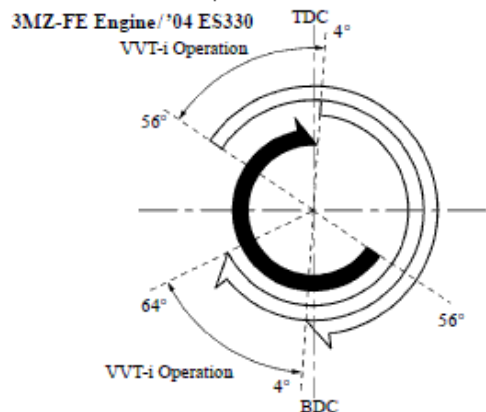


# 2006 MY HIGHLANDER HYBRID 3MZ-FE Valve Timing



Model			'06 Highlander Hybrid	'06 Highlander Gasoline Engine
Engine Type			3MZ-FE	3MZ-FE
Valve Timing	Intake	Open	28° BTDC ~ 32° ATDC	56° BTDC ~ 4° ATDC
		Close	32° ABDC ~ 92° ABDC	4° ABDC ~ 64° ABDC
	Exhaust	Open	56° BBDC	←
		Close	4° ATDC	←

During Idling	 <p>TDC</p> <p>Latest Timing</p> <p>EX</p> <p>IN</p> <p>BDC</p> <p>277EG27</p> <p>Eliminating overlap to reduce blow back to the intake side.</p>	<ul style="list-style-type: none"><li>• Stabilized idling rpm</li><li>• Better fuel economy</li></ul>
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Note.

The '06 Highlander Hybrid model uses the 3MZ-FE engine that has been newly developed for hybrid system application.

It is a V6, 3.3-liter, 24-valve DOHC engine. It is based on the 3MZ-FE engine of the '06 Highlander. Furthermore, the VVT-i system and the ETCS-i have been changed to suit the hybrid system.

