

# TOMEI Camshaft Spec Card

PART NAME		PROCAM		ENGINE		4G63 EVO 9 SOLID	
PART NUMBER		SET		IN	146A290115	EX	146B290115
GRIND	IN	290° / 11.50mm	-	FACE CIRCLE(Φ)	IN	Φ30.0	ROCKER ARM RATIO*
	EX	290° / 11.50mm	-		EX	Φ30.0	
				VALVE CLEARANCE WHEN COLD		IN	0.12
						EX	0.14
LIFT	IN	@CAM 6.75mm	@VALVE 11.50mm	LOBE CENTER(°)	IN	130.0	
	EX	@CAM 6.75mm	@VALVE 11.50mm		EX	110.0	

\* ALL LIFTS ARE BASED ON ZERO LASH AND THEORETICAL ROCKER ARM RATIOS

CAM TIMING		OPENS(°)		CLOSES(°)		Actual Duration @ Opening(°)
Actual Duration	IN	BTDC	10.0	ABDC	100.0	
Valve Lift	EX	BBDC	80.0	ATDC	30.0	290.0

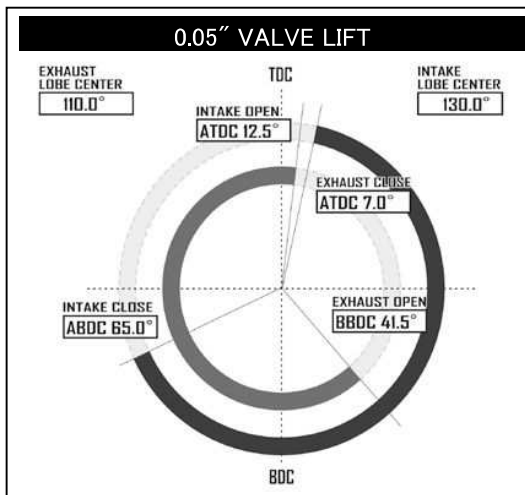
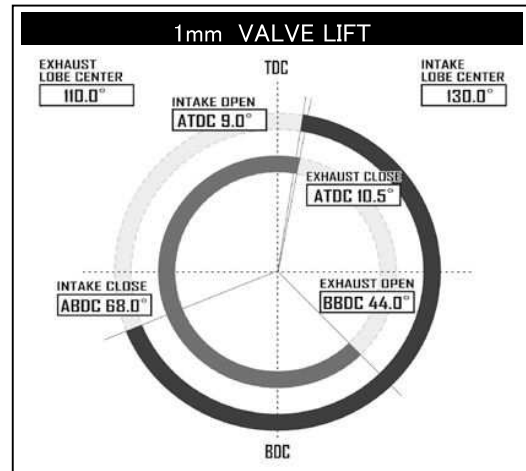
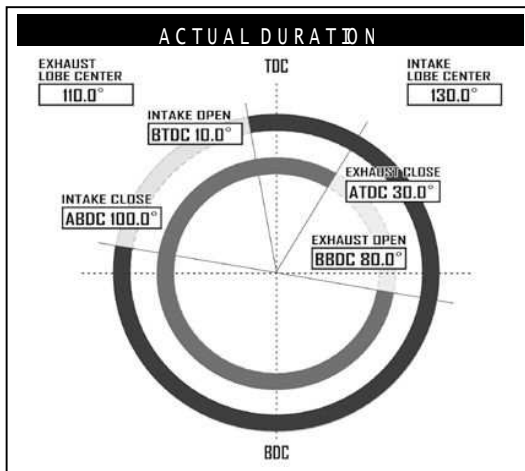
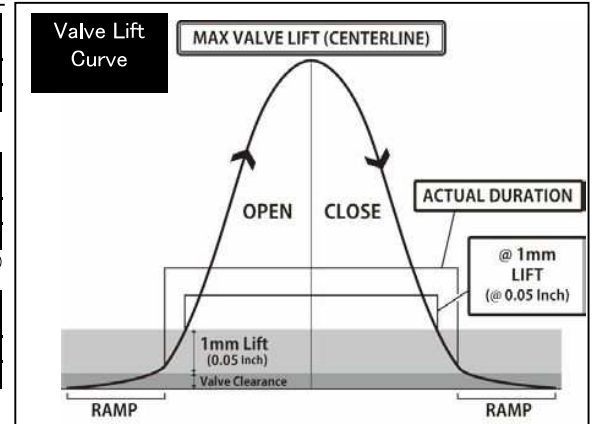
Values shown are, from start to the end of actual duration. (Excluding the ramp values)

CAM TIMING		OPENS(°)		CLOSES(°)		TOTAL DURATION(°)
at 1mm Valve Lift	IN	ATDC	9.0	ABDC	68.0	
	EX	BBDC	44.0	ATDC	10.5	234.5

Values are of actual duration from start to end of 1mm valve points. (Excluding ramp values)

CAM TIMING		OPENS(°)		CLOSES(°)		TOTAL DURATION(°)
at 0.05" Valve Lift	IN	ATDC	12.5	ABDC	65.0	
	EX	BBDC	41.5	ATDC	7.0	228.5

Values are of actual duration from start to end of 0.05" valve points. (Excluding ramp values)



REQUIRED VALVE SPRING SPEC	
NOMAL HEIGHT	50.8mm
SET LENGTH	39.6mm
LIFT LENGTH	28.1mm
COMPRESSED HEIGHT	27.1mm
SET LOAD	33.6kgf ± 5%
LIFT LOAD	81.7kgf ± 6%
TOMEI PART NUMBER	163034

REQUIRED PARTS	
PRODUCT NAME	TOMEI PART NUMBER
SOLID PIVOT	163039

**TOMEI**  
The Engine Specialist