

SUPRA 2JZ-GTE Factory Turbo 6 Cylinder - TWIN CAM (93-98)

Note: These cams use .006" intake (cold), .008" exhaust valve lash (cold).



New Improved Cam Core Technology

Description	Part Number	Advertised Duration		Duration @ .010"		Duration @ .050"		Gross Lift		Rec Kit
		Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
FACTORY OEM SPECS (2JZGTE)	Stock	248°	248°	276°	204°	200°	204°	.338" inches 8.58 mm	.346" inches 8.79 mm	Stock
	264	264°	264°	281°	281°	222°	222°	.364" inches 9.24 mm	.364" inches 9.24 mm	Stock
	272	272°	272°	287°	318°	229°	231°	.374" inches 9.50 mm	.380" inches 9.65 mm	84168
STAGE 1 - Daily Driver Street use and more aggressive turbo and nitrous. Slight lobe at idle. RPM Range: Idle to 7500+	61401-2	264°	264°	289°	289°	218°	218°	.375" inches 9.52 mm	.375" inches 9.52 mm	84168
STAGE 2 - 3/4 Race Street/Strip package. Lobe at idle, extended rpms. Kit #84168 required. RPM Range: 1000 to 8500+.	61402-2	272°	272°	276°	278°	230°	232°	.406" inches 10.31 mm	.415" inches 10.54 mm	84168
STAGE 2 - 3/4 Race Hot street, similar to HKS 272 specs. Kit #84168 required. RPM Range: 1000 to 8500+	61402A-2	272°	272°	310°	310°	228°	230°	.372" inches 9.45 mm	.372" inches 9.45 mm	84168
STAGE 3 - Full Drag Race Limited street with rough idle. Shim under bucket may be required. RPM Range: 1250 to 9000+	61403-2	280°	280°	278°	280°	232°	234°	.415" inches 10.54 mm	.425" inches 10.80 mm	84168
CUSTOM GROUND 2JZGTE CAMS - Special order custom ground profiles available for an additional charge. Proprietary and confidential profiles also available. See specs listed below.	00072-2	<i>Refer to page 7 for camshaft recommendation form</i>								

Note: The above cores will not fit the non-turbo 2JZ cylinder head. No cores available at time of publication.

Note: 1JZ Cams available, call Crower.

ENGINEERED COMPONENT KITS

Part No.	Springs	Retainers	Remarks
84168	68195-24	87085-24	Fits 2JZ cylinder heads
84168S	68195-24	87085-24	Fits 2JZ cylinder heads

Spring pressure:

68195-24 Seat: 1.325" @ 82 lbs / Nose: 0.980" @ 166 lbs / Coil bind: 0.860"
(No machine work required).

BILLET STROKER KITS

Crower offers stroker kits for the 2JZGTE that feature a 4340 steel billet crankshaft, 4340 steel billet rods and custom pistons, pins, rings and locks.
94mm stroke x 87mm bore = 3.4L...big horsepower!

REMEMBER!

When installing new camshaft please remember that the contact surface of the follower must be free of wear/smooth surface.

H-BEAM RODS

Crower also has H-Beam design rods.

ACCESSORIES

Part No.	Description
86054T	Adjustable Cam Sprocket (1 only). All black. 2 required
97440I-12	Stainless steel valves - 33.6 mm head dia (12 only int)
97440E-12	Stainless steel valves - 29 mm head dia (12 only exh)
97441I-12	Stainless steel valves - 34.6 mm head dia (12 only int)
97441E-12	Stainless steel valves - 30 mm head dia (12 only exh)

Note: When ordering valves, be sure to specify one set int and one set exh.

ADJUSTABLE SPROCKETS

Crower's new cam sprockets are made from premium 6061-T6 billet aluminum and incorporate a four bolt ARP® fastening system to prevent the slippage found in other brands. For the ultimate tuner, Crower sprockets feature 5/16" diameter, 12 point ARP® fasteners with a hardened washer to prevent galling and stripping. The lightweight design reduces unwanted harmonics which could cause valve train failure.
Specify #86054T (sold separately).



1ZZ - Twin Cam

Note: These cams use .006" intake (cold), .008" exhaust valve lash (cold).

New Improved Cam Core Technology

Description	Part Number	Lobe Center	Advertised Duration		Duration @ .050"		Gross Lift		Rec. Kit
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
TOYOTA COROLLA (2000)	Stock	114°	256°	256°	204°	195°	.379"	.346"	Stock
STAGE 1 Street use with emphasis on bottom end and mid range power. Works with stock springs up to factory rev limiter. RPM Range: Idle to 7000+	61451-2	114°	264°	264°	214°	202°	.379"	.367"	Stock
STAGE 2 - Forced Induction Designed specifically for turbo or supercharger applications. Low duration, high lift profile. Requires Crower spring kit #84199. RPM Range: Idle to 8000+	61451T-2	114°	272°	272°	215°	212°	.396"	.379"	84199
STAGE 2 - 3/4 Race Designed for street/strip applications in normally aspirated engines. Requires spring/retainer kit #84199 and ECU mods. RPM Range: 1000 to 7800+	61452-2	112°	272°	272°	222°	219°	.396"	.396"	84199
STAGE 3 - Full Race Drag Race and radical Street/Strip. Requires #84199 spring kit and compatible ECU upgrade for optimum results. Rough idle. RPM Range: 1100 to 8000+	61453-2	112°	280°	280°	228°	219°	.415"	.396"	84199
CUSTOM GRIND - Crower can custom grind cams to your desired specs, also proprietary profiles available upon request.	00085-2		<i>Refer to page 7 for camshaft recommendation form</i>						

Duration figures are taken at the lobe.

ENGINEERED COMPONENT KITS

Part No.	Springs	Retainers	Remarks
84199	68160-16	87086-16	Titanium retainer intended for race and limited street

Spring pressure:

68160-16 Seat: 1.310" @ 39 lbs / Nose: 0.880" @ 97 lbs / Coil bind: 0.810" (No machine work required).

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MAXI-LITE BILLET RODS

Crower's new Maxi-Lite billet is approximately 100 grams lighter than Crower's standard billet.

STEEL BILLET RODS

100% made in the USA from premium steel billet material, Crower offers two styles of rods for the Toyota 1zz engine. Crower's premium standard steel billet rod (#B93751B-4) is designed for boosted applications in excess of 12 psi or over 100 HP shot of nitrous. Also available in a Maxi-Lite all motor design (ML93751B-4) for added weight reduction and quicker throttle response.

2T / 2TC / 3TC 4 Cylinder

Note: These cams use .014" intake (cold), .016" exhaust valve lash (cold).



New Improved Cam Core Technology

Description	Part Number	Lobe Center	Advertised Duration		Duration @ .050"		Lobe Lift		Gross Lift 1.4 / 1.4		Rec. Kit
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
STAGE 1 Stock replacement. RPM Range: Idle to 5500+	61850*	110°	256°	256°	194°	194°	.254"	.254"	.355"	.355"	Stock
STAGE 1 Mild street, similar to stock idle. Good for bottom end performance. Works well with automatic transmission. RPM Range: Idle to 6000+	61851*	108°	260°	266°	206°	214°	.250"	.260"	.350"	.364"	Stock
STAGE 2 Excellent normally aspirated street. Emphasis on mid-range power. Tight center for torque and lope at idle. RPM Range: 1000 to 7000+	61852*	108°	274°	280°	220°	230°	.253"	.268"	.354"	.375"	TRD
STAGE 2 - 3/4 Race Excellent for turbo and nitrous for street/strip applications. Wide center for top end performance. RPM Range: 2600 to 7200+	61853*	114°	286°	280°	240°	230°	.263"	.268"	.368"	.375"	TRD
STAGE 4 - Full Race Race turbo (30+ lbs boost minimum). Also works well with NOS. RPM Range: 2600 to 7200+	61854*	112°	290°	296°	258°	268°	.360"	.370"	.504"	.518"	TRD
STAGE 5 - Full Race Performance built, race oriented application. Not for the inexperienced tuner. Top end insanity. RPM Range: 3000 to 8000+	61855*	114°	300°	300°	268°	268°	.370"	.370"	.518"	.518"	TRD
CUSTOM GROUND SOLID - Special order solid lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00000		<i>Refer to page 7 for camshaft recommendation form</i>								

* Indicates spec change from previous listings. Contact TRD regarding spring and retainer availability.

Valve timing events are available online at: www.crower.com/valvtime.html

4AGE 4 cylinder

Note: These cams use .006" intake (cold), .008" exhaust valve lash (cold).

Description	Part Number	Advertised Duration (.010")		Duration @ .050"		Lobe lift		Gross Lift		Rec Spring
		Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
FACTORY OEM SPECS (4AGE)	STOCK	255°	258°	204°	204°	.298"	.298"	-	-	STOCK
STAGE 1 Street use. Slight lope at idle. RPM Range: 2000 to 7000+	61821-2	268°	268°	212°	212°	.305"	.305"	-	-	68162-16
STAGE 2 4AGE forced induction applications. Big lift, short duration profile. RPM Range: 2500 to 7500.	61822T-2	270°	270°	218°	218°	.344"	.344"	-	-	68162-16
STAGE 2 Use for street/strip applications with no power adders. Lope at idle.. RPM Range: 2500 to 7500+	61822-2	272°	272°	224°	224°	.321"	.321"	-	-	68162-16
STAGE 3 - 3/4 Race Recommended for mostly strip use. All motor application, rough idle. RPM Range: 3000 to 8500+	61823-2	280°	280°	234°	234°	.333"	.333"	-	-	68162-16
STAGE 3 - Full Race All out, all motor drag profile. not for the inexperienced tuner.. RPM Range: 3500 to 9000+	61824-2	288°	298°	234°	240°	.333"	.344"	-	-	68162-16

68162-16 Seat: 1.300" @ 54 lbs / Nose: 0.950" @ 128 lbs / Coil bind: 0.885" (No Machine work required).

22R (4 Cylinder)

Note: These cams use .006" intake, .008" exhaust valve lash.

New Improved Cam Core Technology

Description	Part Number	Lobe Center	Advertised Duration		Duration @ .050"		Gross Lift 1.5 / 1.5		Rec. Spring	
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust		
CARBURETOR - STAGE 1 10:1 compression, low to mid-range torque. Heavy vehicle. RPM Range: 2200 to 6200+	61800	108°	270°	276°	216°	220°	.430"	.430"	- -	Stock
CARBURETOR - STAGE 1 10:1+ compression, header, intake manifold, carb mods. RPM Range: 3000 to 7000+	61801	108°	286°	290°	226°	236°	.429"	.443"	- -	Stock
CARBURETOR - STAGE 2 11:1+ compression, header, big single, or dual carbs. RPM Range: 3400 to 7200+	61803	108°	290°	298°	236°	240°	.443"	.417"	- -	68218-8
CARBURETOR - STAGE 3 (3/4 Race) 12:1+ compression, header, big single, or dual carbs, porting, etc... RPM Range: 4200 to 8000+	61804*	106°	298°	304°	248°	254°	.489"	.504"	- -	68218-8
CARBURETOR - STAGE 4 (Full Race) Professionally prepared, purpose built, race only engine. RPM Range: 5000 to 8500+	61805	106°	308°	308°	264°	264°	.566"	.566"	- -	68218-8
EFI - STAGE 1 Excellent stock replacement cam. No other modifications required, straight forward remove and replace. RPM Range: 1500 to 5500+	61802	114°	252°	260°	204°	210°	.420"	.438"	- -	Stock
EFI - STAGE 2 Street/Strip profile and all purpose daily driver. Headers, performance exhaust recommended. RPM Range: 2000 to 6000+	61807	114°	270°	276°	216°	220°	.430"	.430"	- -	Stock
EFI - STAGE 3 (3/4 Race) Excellent for turbo and nitrous for street/strip applications. Wide center for top end performance. RPM Range: 2500 to 7000+	61808	114°	280°	280°	226°	226°	.445"	.445"	- -	68218-8
EFI - STAGE 4 (Full Race) Mostly strip, not for daily driver. Very rough idle, aftermarket valve springs, ECU mods required. RPM Range: 3000 to 7500+	61809	114°	290°	298°	236°	240°	.443"	.417"	- -	68218-8

*Indicates design change from previous listings.

Optional spring:

68218-8 Inner spring for rpm over 6000 rpm. Use with stock outer.

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