



Kiwi Cylinder Heads Ltd

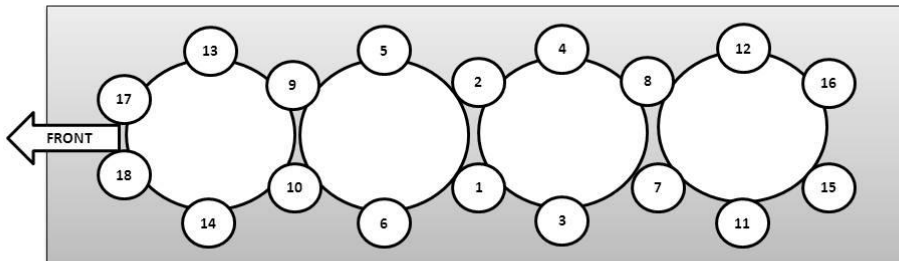
31 Carbine Rd, Mt Wellington, Auckland

TECHNICAL INFORMATION – 1KZT-SV

ENGINE	TOYOTA 1KZT-SV. P/N 10081039		ENGINE	TOYOTA 1KZT-SV. P/N 10081039		
CAPACITY	2982cc		TORQUE SETTINGS	20Nm / 40Nm / +90* / +90*		
TYPE	L4		HEAD BOLTS (TTY)	YES / REPLACE WITH P/N 30086005		
CAMS	SOHC		HEAD GASKET SIZES mm	0.85	0.95	1.10
VALVES	8		PISTON PROTRUSION mm	0.08-0.12	0.13-0.22	0.23-0.33
CAM DRIVE	BELT		ROUGHNESS	0.5 / 1.0 um		
BORE / STROKE	96 x 103mm		FIRING ORDER	1-3-4-2		
TURBO Y/N	YES		IDLE SPEED	650-750 rpm		
FUEL	DIESEL		COMP. RATIO	21.2:1		
YEARS	1993-2000		VALVE LENGTH	103.5mm OVER ALL		
VALVE GAPS mm	INLET 0.20 – 0.30	EXH. 0.25 – 0.35	FUEL DELIVERY	IN-DIRECT INJECTION		

Toyota 1KZT-E 1993-2005 Torque Sequence

- HEAD BOLT P/N 30086005 QUANTITIES: 18 @ 128/60mm M12 x 1.25mm
- HEAD BOLT TIGHTENING SEQUENCE.
- STEP ONE: 20Nm
- STEP TWO: 40Nm
- STEP THREE: +90*
- STEP FOUR: +90*
- IMPORTANT: ALL BOLT THREADS, BOLTHEADS AND WASHERS MUST BE LIGHTLY OILED.
- USING AN OLD HEADBOLT WITH GROOVE CUT DOWN THREAD, CLEAN THE BLOCK HEADBOLT THREADS.



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ASSEMBLY GUIDE

DO THOROUGHLY CLEAN ALL MATING SURFACES.

DO USE NEW HEADBOLTS.

DO SERVICE THE INJECTORS.

DO FLUSH THE ENTIRE COOLING SYSTEM OF REMAINING ANTI-FREEZE.

DO LIGHTLY OIL HEADBOLTS INCL. UNDER THE HEAD & WASHER.

DO NOT CLEAN BLOCK THREADS WITH AN ENG. TAP. USE AN OLD HEADBOLT.

DO NOT ADD ANTI-FREEZE UNTIL VEHICLE HAS TRAVELLED MIN. 600KMS, WATER ONLY.

DO RING US FOR ASSISTANCE

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Toyota 1KZTE Camshaft

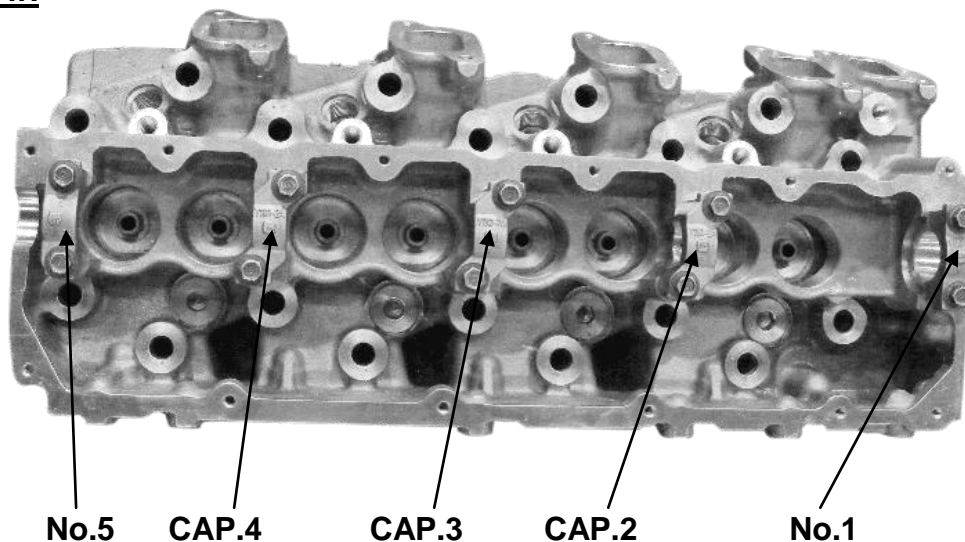
The camshaft bearing caps on this cylinder head are located with a single dowel only which can lead to problems during installation. The bearing caps are able to move on the non dowel side and if tightened on an angle will lock up the camshaft. As the head was line bored in the manufacturing process the issues arise from the alignment of the bearing caps during assembly.

The suggested technique is to use a heavy pre-lube oil on the bearing surfaces and with all the bearing caps pressed firmly into position tighten the bolts finger tight checking the camshaft continues to rotate freely.

1. Starting with the centre cap progressively tighten the bolt on the side without the dowel (exhaust side) checking all the time that the camshaft continues to rotate freely.
2. Tighten the dowel side and check again that the camshaft rotates freely.
3. Repeat steps 1 & 2 starting with the next cap to the rear of the head and then alternate to the front. The final cap to tighten should be the one at the front of the head.

Cam bearing cap numbering: Please note that bearing cap number 5 is marked on the opposite side of the cap than numbers 1- 4 caps. Caps "2-3-4" maybe numbered with an "8".

See picture below.



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