

ENGINE

Identification	1KZ-TE
No of cylinder/kind of engine	4/IL
Bore x stroke (mm)	96.0x103.0
Piston displacement (cc)	2982
Maximum power (kW) @ (rpm)	85@3600
Torque (Nm) at (rpm)	295@2400
Compression ratio.. :1	21.2
Compression pressure (kPa) @ rpm	1960-3040
Valve clearance- IN (mm); k=cold, w=hot	0.20-0.30 K
Valve clearance- EX (mm); k=cold, w=hot	0.25-0.35 K
Valve arrangement	SOHC
Oil pressure (kPa)	29(min.)@IDLE
Radiator pressure (kPa)	74-103
Thermostat opens (°C)	80-84

WHEEL ALIGNMENT

Caster - Front (deg)	0.78±0.75
Camber - Front (deg)	0.30±0.75
Toe-in - Front (mm)	2.9±2
Steering axis inclination (kPi) deg	12.27±0.75
Camber - Rear (deg)	DNA
Toe-in - Rear (mm)	DNA
Wheel/Tyre size - standard	6Jx16/205 R16R/F 6PR
Front tyre pressure (kPa)	170
Rear tyre pressure (kPa)	240

BRAKES

Brake bleeding sequence	LR, RR, LF, RF
Front pad thickness- min.(mm)	1.0
Rear lining/pad thickness-min. (mm)	1.0
-	-

INJECTION

Idle speed (rpm)	650-750
Max. governed speed (rpm)	4500-4700
Firing order	1342
Injection timing - Static (°)	NAM
Plunger stroke (mm)	NAM
Nozzle opening pressure (kPa) [new]	14,808-15,593

ELECTRICAL SYSTEM

Battery voltage (V/Ah)	12 / 64
Alternator output (A)	55
Alternator output (rpm)	5000
Alternator output (V)	14.0
Regulator voltage (V)	13.2-14.8

FILLING CAPACITIES

Crankcase with filter-capacity (L)	7.0
Manual transmission oil (L)	3.9
Front / Rear axle/differential oil (L)	#158 / 2.4
Transfer case (L)	1.1
Fuel tank (L)	77
Cooling system with heater (L)	10.5

TIGHTENING TORQUES

Cylinder head (Nm)	1st step	39
Cylinder head (Nm)	2nd step	+90°
Cylinder head (Nm)	3rd step	+90°
Connecting rod (Nm)	1st step	29
Connecting rod (Nm)	2nd step	+90°
Connecting rod (Nm)	3rd step	DNA
Crankshaft main bearing (Nm)	1st step	49
Crankshaft main bearing (Nm)	2nd step	+90°
Crankshaft main bearing (Nm)	3rd step	DNA

SERVICE SCHEDULE

MONTHS	6	12	18	24	30	36	42	48	54	60	LUBRICANT	FOOTNOTES
KM x 1,000	10	20	30	40	50	60	70	80	90	100		
Engine Oil	R	R	R	R	R	R	R	R	R	R	CE-15W40	#108
Oil Filter	R	R	R	R	R	R	R	R	R	R		
Cooling System & Hoses												
Engine Coolant	C	C	C	C	C	C	C	C	C	C	C1	#216
Ball Joints & Dust Covers		C				C		C		C		
Front Suspension		C				C		C		C		
Rear Suspension		C				C		C		C		
Steering Gear & Linkage		C				C		C		C		
Front Wheel Bearings		P				P		P		P		
Rear Wheel Bearings		P				P		P		P		
Tyres Condition	C	C	C	C	C	C	C	C	C	C		
Brake Fluid	C	C	C	C	C	C	C	C	C	C	B03	#216
Brake Line/Hose/Connections		C				C		C		C		
Brakes - Drum Linings								C				#266
Brakes - Disc Pads	C	C	C	C	C	C	C	C	C	C		#265
Brake Pedal Freeplay		C				C		C		C		
Parking Brake, Cables, Supports		C				C		C		C		
Drive/Propeller Shaft & Dust boots	L	L	L	L	L	L	L	L	L	L		#257
Clutch Fluid	C	C	C	C	C	C	C	C	C	C		
Transmission - Auto Fluid		C				C		C		C	AT2	
Transmission - Manual Fluid								C			G04-75W90	
Axle / Differential Fluid (Front)		C				C		C		C	G05-90	
Axle / Differential Fluid (Rear)		C				C		C		C	G10-90	
Transfer Case Fluid						C		C			G04-75W90	
Exhaust System		C				C		C		C		
Fuel Lines, Hoses & Connections						C		C		C		
Fuel Filter		R				R		R		R		
Fuel Filter Sedimentor Chamber	C	C	C	C	C	C	C	C	C	C		
Valve Clearances						C		C		C		
Idle R.P.M.		C				C		C		C		
Power Steering Fluid	C	C	C	C	C	C	C	C	C	C	AT2	
Steering Gear Oil		C				C		C		C	G04-90	
Air Cleaner Element	C	C	C	C	C	C	C	C	C	C		
Battery	C	C	C	C	C	C	C	C	C	C		
Drive Belts	C	C	C	C	C	C	C	C	C	C		#165
Air Conditioning		C				C		C		C		
Bolts, Nuts on Chassis and Body								C		T		

FOOTNOTES:

- #108 Change every 5,000 km or 3 months.
 #158 1.86 / 1.6L (With / Without Auto Disengaging Differential).
 #164 With Automatic Cold Start Device (ACSD) 0.44-0.56 mm. Without ACSD 0.64-0.76 mm.
 #165 Also replace timing belt every 150,000 km.
 #216 Replace every 24 months regardless of distance travelled.
 #257 Also inspect tightness of bolts.
 #265 Including disc.
 #266 Including parking brake linings and drums.
 #T20 Single Cab: 0.85°±0.75°. Double Cab: 1.03°±0.75°. Xtra Cab: 1.28°±0.75°.
 #T21 Single Cab: 0.30°±0.75°. Double Cab: 0.30°±0.75°. Xtra Cab: 0.27°±0.75°.
 #T22 Single Cab: 2.9±2 mm. Double Cab: 2.1±2 mm. Xtra Cab: 1.9±2 mm.
 #T23 Single Cab: 12.23°±0.75°. Double Cab: 12.25°±0.75°. Xtra Cab: 12.27°±0.75°.
 #T24 Single Cab and Xtra Cab 77L. Double Cab 66L.

SURF- OIL FILTER 2334

94- FUEL FILTER 2252

FRONT OF
VEHICLE

1 2 3 4

FIRING ORDER:
1 3 4 2

Refer to page 5 for lubricant codes

- R - Replace part, change fluid
 L - Lubricate
 C - Check, adjust, clean, replace or lubricate as required
 P - Repack
 T - Retorque