

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Automotive Technical DATA BOOK

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Engine and cooling system 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

Type		3VZ-E SOHC 12V 105kW
Capacity (cm ³) / number of cylinders		2959 / 6
Compression ratio / pressure	bar	9.0 / ≥9.8
Oil pressure	bar	[3.0 to 5.4]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.13 to 0.23
- exhaust	mm	0.27 to 0.37
Firing order		1-2-3-4-5-6
No 1 cylinder position		FR
Thermostat opening temperature	°C	80 to 84
Radiator cap pressure	bar	0.70 to 1.00

Fuel system 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

Idle speed - manual [auto]	rpm	700±50 N/A
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	0 to 0.5 N/A
HC @ idle speed [3000 rpm] - see page VI	ppm	≤300
CO ₂ @ idle speed [3000 rpm] - see page VI	%	—
O ₂ @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		Toyota
Type / ref		MPI (L-Jetronic) TCCS
Main jet / needle		—
Injection pressure	bar	—
Pump pressure	bar	2.6 to 3.0
Octane rating	RON	95[U]

Ignition system 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

Type		TCCS - IIA
Ignition coil		—
Primary resistance	ohms	0.2 to 0.3
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Toyo Denso
Points gap (air gap)	mm	[0.20 to 0.40]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	—
V = Vacuum NV = No Vacuum		—
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	TCCS - ESA
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	TCCS - ESA
Maximum vacuum advance	° Crankshaft	—
Spark plugs		NGK
Type		BCPREP-11
Electrode gap	mm	1.10

Electrical system 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

Battery	V / CC / RC	12 / 60Ah
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	90 / 11.5 (no load)
- locked	A / V	—

Running gear 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

Brakes -		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	1.0

Tyres		
Saloon	Size	—
Estate / Van	Size	265/75x15
Pressure - front / rear - Saloon	bar	—
- Estate / Van	bar	1.9 / 1.9

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	+2.2±2.0 ¹
Camber		+42'±45'
Castor		+1°42'±45' ²
King pin inclination		+11°53'±45'

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	—
Camber		—

Torque wrench settings 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

Cylinder head - stage 1	Nm	34
- stage 2	Nm	+ 90°
- stage 3	Nm	+ 90°
- stage 4	Nm	—
Big-end bearings	Nm	25 + 90°
Main bearings	Nm	61 + 90°
Clutch cover	Nm	19
Flywheel [driveplate]	Nm	83 N
Front hubs	Nm	WSM
Rear hubs	Nm	—
Wheel nuts / bolts	Nm	103
Spark plugs	Nm	18

Capacities 4Runner V6 4x4 CAT (VZN130) 1991 to 1995

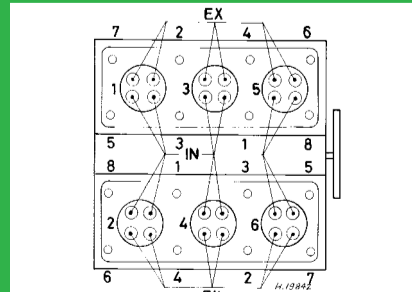
Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	—
Automatic transmission - refill	litres	—
Final drive	litres	Front: 1.9 ³
Cooling system	litres	7.4
Fuel tank	litres	65

Notes and Illustrations

¹LHD: 2.3±2.0

²LHD: +1°49'±45'

³Rear: 2.2. Leaf spring: 2.3



2959 cm³