

Engine & Cooling

Fuel

Ignition

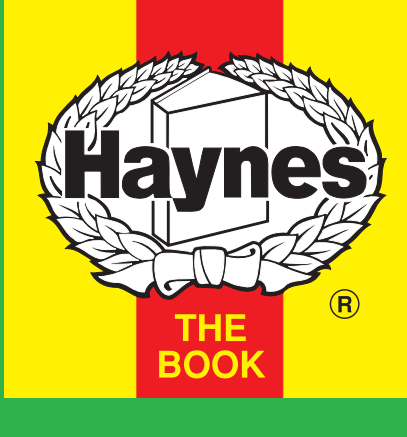
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

Click on one of the buttons above to view data for this car. To return to this screen and make another choice, click anywhere on the data screen.

MENU

HELP

Engine and cooling systemPrimera Estate 1.6 & CAT (W10)1990 to 1994

Type		GA16DS DOHC 16V 67kW
Capacity (cm³) / number of cylinders		1597 / 4
Compression ratio / pressure	bar	9.8 / ≥11.8
Oil pressure	bar	[3.4 to 4.4]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.32 to 0.40 H
Valve clearance - exhaust	mm	0.37 to 0.45 H
Firing order		1-3-4-2
No 1 cylinder position		TCE
Thermostat opening temperature	°C	76.5
Radiator cap pressure	bar	0.78 to 0.98

Fuel systemPrimera Estate 1.6 & CAT (W10)1990 to 1994

Idle speed - manual [auto]	rpm	750±50
Fast idle speed - manual [auto]	rpm	2300±200
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5 N/A
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		Nikki
Type / ref		2V: 21L304-11. CAT: 21L304-19
Main jet / needle		100, 135. CAT: 92, 135
Injection pressure	bar	—
Pump pressure	bar	0.21 to 0.34
Octane rating	RON	95[E 95 RON] ¹

Ignition systemPrimera Estate 1.6 & CAT (W10)1990 to 1994

Type		Computerized
Ignition coil		—
Primary resistance	ohms	1.15. CAT: 0.9
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	12.0
Distributor		Lucas/Hitachi
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	2±2 BTDC @ 750±50 ²
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	10±5 BTDC @ 750±50
	° Crankshaft @ rpm	CAT: 10±2 BTDC @ 750±50
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	non-CAT: 0±2 @ 1200
	° Crankshaft @ rpm	non-CAT: 17+2 @ 2400 to 2800
	° Crankshaft @ rpm	non-CAT: 25±2 @ 4400
Vacuum range check	mbar	non-CAT: 133 to 533
Maximum vacuum advance	° Crankshaft	non-CAT: 20±2
Spark plugs		NGK/Champion
Type		BKR6E / RC9YCC
Electrode gap	mm	0.80 to 0.90

Electrical systemPrimera Estate 1.6 & CAT (W10)1990 to 1994

Battery	V / CC / RC	12 / 50 or 65Ah
Alternator voltage / full load current / engine rpm		13.6 to 14.6 / 70 / 3000
Starter motor current / voltage - cranking	A / V	50 to 90 / 11.0
- locked	A / V	—

Running gearPrimera Estate 1.6 & CAT (W10)1990 to 1994

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	1.5

Tyres		
Saloon	Size	—
Estate / Van	Size	195/65x14
Pressure - front / rear - Saloon	bar	—
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+1.0 to 3.0
Camber		-5' to +1°25'
Castor		+1°15' to 2°45'
King pin inclination		+13°15' to 14°45'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	-1.0 to +3.0
Camber		-2°15' to -45'

Torque wrench settingsPrimera Estate 1.6 & CAT (W10)1990 to 1994

Cylinder head - stage 1	Nm	29
- stage 2	Nm	59, loosen completely
Cylinder head - stage 3	Nm	29
- stage 4	Nm	+ 50 to 55 ^{o3}
Big-end bearings	Nm	14 to 16 ⁴
Main bearings	Nm	46 to 52
Clutch cover	Nm	22 to 29
Flywheel [driveplate]	Nm	83 to 93
Front hubs	Nm	235 to 314
Rear hubs	Nm	186 to 255
Wheel nuts / bolts	Nm	98 to 118
Spark plugs	Nm	20 to 29

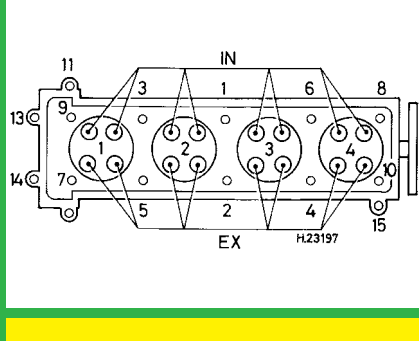
CapacitiesPrimera Estate 1.6 & CAT (W10)1990 to 1994

Engine oil & filter	litres	3.2
Gearbox - 4-speed [5-speed]	litres	2.9
Automatic transmission - refill	litres	—
Final drive	litres	WT
Cooling system	litres	4.7
Fuel tank	litres	60

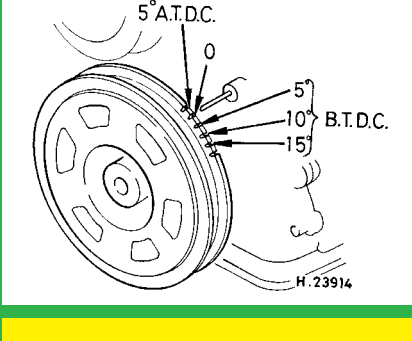
Notes and Illustrations

- ¹CAT: 95 [U]
- ²CAT: 2 BTDC @ 750±50
- ³Tighten bolts 11 to 15 to 6.3 to 8.3
- ⁴+ 35 to 40°

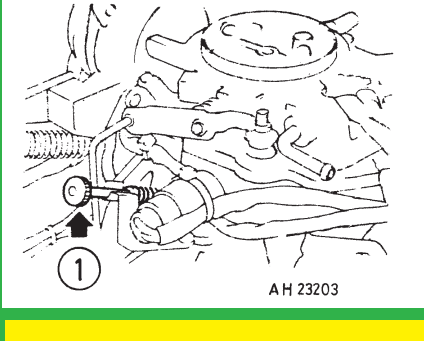
1: Idle speed 2: CO / Mixture



1597 cm³



1597 cm³



Nikki 21L304