Haynes THE BOOK ®

Automotive Technical DATA BOOK

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Engine and cooling system

		190E 1.8 & CAT (201.***) 1990 to 1993
Type		102.*** KE
Capacity (cm³) / number of cylinders		1797 / 4
Compression ratio / pressure	bar	9.0 / ≥8.5
Oil pressure	bar	0.3 [3.0]
Oil temperature	ºC	90
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		F
Thermostat opening temperature	ºC	87±2
Radiator cap pressure	bar	1.2±0.1

Fuel system

		190E 1.8 & CAT (201.***) 1990 to 1993
Idle speed - manual [auto]	rpm	700 to 800
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5. CAT: ≤0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Bosch
Type / ref		CIS-E 3.5 (KE-Jetronic)
Main jet / needle		_
Injection pressure	bar	≥3.2
Pump pressure	bar	5.3 to 5.5
Octane rating	RON	98[E 95 RON][1]

Ignition system

		190E 1.8 & CAT (201.***) 1990 to 1993
Type		EZL
Ignition coil		Bosch
Primary resistance	ohms	0.3 to 0.6
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	Battery
Distributor		Bosch
Points gap (air gap)	mm	_
Dwell angle	º (%)	9 to 49 @ starter speed
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	º Crankshaft @ rpm	_
V = Vacuum NV = No Vacuum		_
Total ignition advance	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	º Crankshaft	_
Spark plugs		Champion
Type		S9YCC
Electrode gap	mm	0.80

Electrical system

		190E 1.8 & CAT (201.***) 1990 to 1993
Battery	V / CC / RC	12 / 190 / 62Ah
Alternator voltage / full load current / engine rpm		13.0 to 14.5 / 55 / 3000
Starter motor current / voltage - cranking	A / V	75 / 11.5 (no load)
- locked	A / V	430 to 550 / 3.2

Running gear

		190E 1.8 & CAT (201.***) 1990 to 1993
Brakes -		
Front (min. friction material thickness)	mm	3.5
Rear (min. friction material thickness)	mm	2.0
Tyres		
Saloon	Size	185/65x15
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.0 / 2.2
- Estate / Van	bar	_
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+20'±10']
Camber		-25'+10'-20'
Castor		+10°25'±30'
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+25'+10'-5']
Camber		-1°30'±30'

Torque wrench settings

		190E 1.8 & CAT (201.***) 1990 to 1993
Cylinder head - stage 1	Nm	55[2]
- stage 2	Nm	+ 90°
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	_
Big-end bearings	Nm	30 + 90 to 100°
Main bearings	Nm	M12: 90[3]
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	30 + 90 to 100°
Front hubs	Nm	WSM
Rear hubs	Nm	200 to 240
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	20

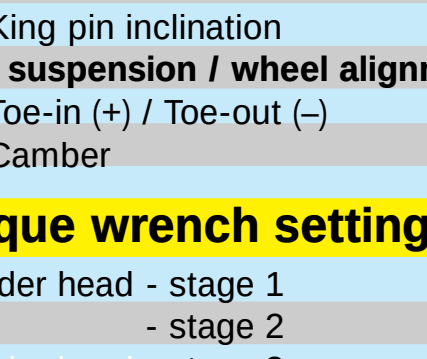
Capacities

		190E 1.8 & CAT (201.***) 1990 to 1993
Engine oil & filter	litres	5.0
Gearbox - 4-speed [5-speed]	litres	1.3 [1.5]
Automatic transmission - refill	litres	5.5
Final drive	litres	0.7
Cooling system	litres	8.5
Fuel tank	litres	55

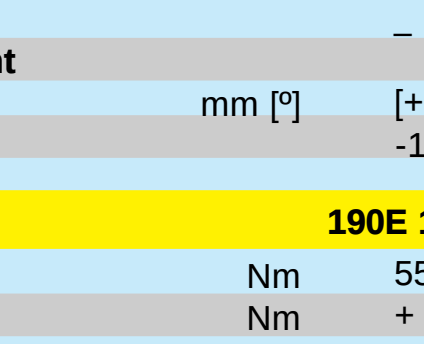
Notes and Illustrations

[1]**CAT: [U]**
[2]**Bolts marked "a" on diagram: 21**
[3]**M11: 55 + 90 to 100°**

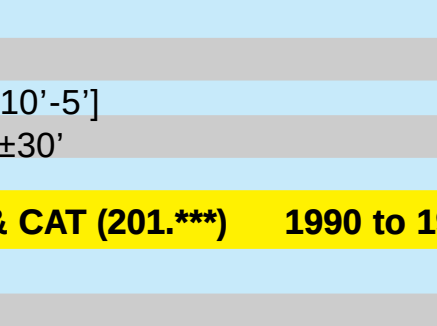
1: Idle speed 2: CO / Mixture



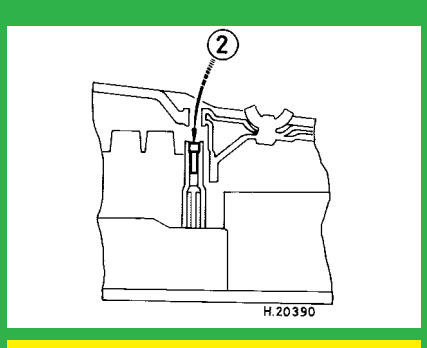
1797 cm³



1797 cm³



KE-Jetronic



KE-Jetronic