

Engine & Cooling

Fuel

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Automotive Technical
DATA BOOK

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HELP

Engine and cooling systemBallade EX1986 to 1989

Type	EW 2 SOHC 12V	
Capacity (cm³) / number of cylinders	1488 / 4	
Compression ratio / pressure	bar	8.7 / ≥9.8
Oil pressure	bar	[3.3 to 4.1]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.17 to 0.22
Valve clearance - exhaust	mm	0.22 to 0.27
Firing order	1-3-4-2	
No 1 cylinder position	TBE	
Thermostat opening temperature	°C	76 to 78
Radiator cap pressure	bar	0.76 to 1.04

Fuel systemBallade EX1986 to 1989

Idle speed - manual [auto]	rpm	700 to 800 [650 to 750]
Fast idle speed - manual [auto]	rpm	1500 to 2500
CO @ idle speed [3000 rpm] - see page VI	%	0.5 to 2.0
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	Keihin	
Type / ref	2V downdraught	
Main jet / needle	120	
Injection pressure	bar	—
Pump pressure	bar	0.18 to 0.27
Octane rating	RON	91[E 91 RON]

Ignition systemBallade EX1986 to 1989

Type	Electronic	
Ignition coil	—	
Primary resistance	ohms	1.22 to 1.49
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor	Hitachi	
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation	—	
Ignition timing - basic [static	° Crankshaft @ rpm	14±2 BTDC @ idle
V = Vacuum NV = No Vacuum	—	
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 800 to 1200
	° Crankshaft @ rpm	16 to 21 @ 3000
	° Crankshaft @ rpm	28 to 32 @ 5500
Vacuum range check	mbar	73 to 373
Maximum vacuum advance	° Crankshaft	9 to 11
Spark plugs	NGK/Champion	
Type	BPR6EY-11 / RN9YC	
Electrode gap	mm	1.00 to 1.10

Electrical systemBallade EX1986 to 1989

Battery	V / CC / RC	12 / 45Ah
Alternator voltage / full load current / engine rpm	14.0 / _ / 3000	
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gearBallade EX1986 to 1989

Brakes -		
Front (min. friction material thickness)	mm	3.0
Rear (min. friction material thickness)	mm	2.0

Tyres		
Saloon	Size	165x13
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	1.9 / 1.9
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0±3.0
Camber	-10'±1°	
Castor	+2°50'±1°	
King pin inclination	+12°55'±30'	

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+2.0±2.0
Camber	-45'±15'	

Torque wrench settingsBallade EX1986 to 1989

Cylinder head - stage 1	Nm	30 oiled
- stage 2	Nm	60
Cylinder head - stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	28
Main bearings	Nm	50 oiled
Clutch cover	Nm	26
Flywheel [driveplate]	Nm	105
Front hubs	Nm	185
Rear hubs	Nm	—
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	18

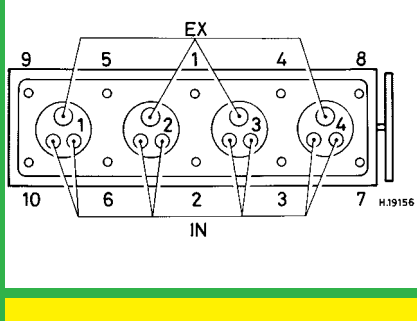
CapacitiesBallade EX1986 to 1989

Engine oil & filter	litres	3.5
Gearbox - 4-speed [5-speed]	litres	2.3
Automatic transmission - refill	litres	2.4
Final drive	litres	WT
Cooling system	litres	5.2
Fuel tank	litres	46

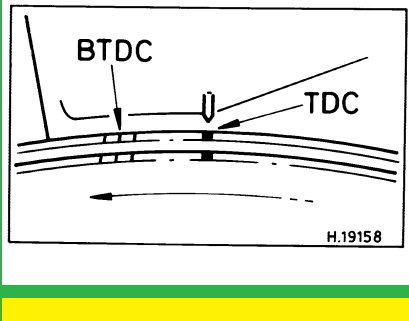
Notes and Illustrations



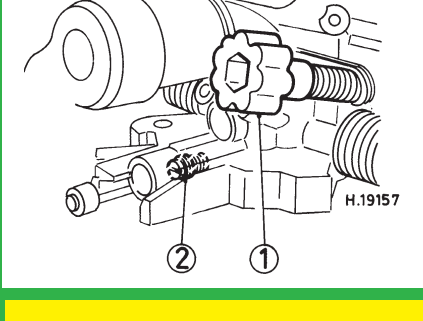
1: Idle speed 2: CO / Mixture



1488 cm³



1488 cm³



Keihin 2V