Telephone:
Fax:
VAT Registration No.:

Notes			Specified value	Measured value
Vehicle identification				
	No. of cylinders	Type	**4/OHC**	
	Capacity (Fiscal)	cc	**1781 (1769)**	
	Compression ratio	:1	**9,0**	
	Suitable for unleaded petrol		**Yes**	
	Minimum octane rating	RON	**91**	
	Ignition system	Type	**TSZ-i**	
	Ignition system	Description	**Trans-i**	
	Trigger location		**Distributor**	
	Fuel system	Make	**Hitachi**	
	Fuel system	Type	**DCX 328**	
	Fuel system	Description	**Carb-2V**	
	Diagnostic socket		**No**	
Ignition system				
	Ignition coil	Make	**Diamond**	
	Ignition coil	Type	**E019-01-R**	
	Ignition coil supply voltage	+ with ballast V	**11,0**	
	Primary resistance	Ohm	**1,03-1,27**	
	Secondary resistance	Ohm	**7100-9600**	
	Firing order		**1-3-2-4**	
	Distributor (ECM)	Make	**Hitachi**	
	Distributor (ECM)	No.	**D4R84-53**	
Tuning and emissions				
11	Tuning conditions			
	Ignition timing	o = without + = with vacuum	**o**	
	Ignition timing - basic BTDC	°Engine/rpm	**8/800**	
	Ignition advance		**Without vacuum and basic timing**	
	Ignition advance checks	°Engine/rpm	**0-2/1000**	
	Ignition advance checks	°Engine/rpm	**14-18/3200**	
	Ignition advance checks	°Engine/rpm	**23-27/5000**	
	Vacuum check	+ = advance o = retard	**+**	
	Vacuum range	°Engine	**10-12**	
	Vacuum starts	mbar	**133**	
	Vacuum ends	mbar	**533**	
	Idle speed	rpm	**800±50**	
	Oil temperature for CO test	°C	**60**	
	CO level at idle speed - tailpipe	Vol. % CO	**1,0±0,5**	
	CO level at idle speed - tailpipe (Cat)	Vol. % CO	**0,5 Max**	
	HC level at idle speed	ppm	**300**	
	HC level at idle - alternative	ppm	**Cat=100**	
	CO2 level at idle speed	Vol. % CO2	**13-16**	
	O2 level at idle speed	Vol. % O2	**0,5-2,0**	
Spark plugs				

	Spark plugs	Original equipment	**NGK**	
	Spark plug	Type	**BPR6ES**	
	Electrode gap	mm	**0,8**	
	Spark plugs	Make	**Bosch**	
	Spark plug	Type	**WR7DC**	
	Electrode gap	mm	**0,8**	
	Spark plugs	Make	**Champion**	
	Spark plug	Type	**RN9YCC**	
	Electrode gap	mm	**0,8**	
	Spark plugs	Make	**NGK**	
	Spark plug	Type	**BPR6ES**	
	Electrode gap	mm	**0,8**	
Fuel system				
	Fuel pump delivery pressure	bar	**0,23**	
Service checks and adjustments				
	Valve clearance -INLET	mm	**Hydraulic**	
	Valve clearance -EXHAUST	mm	**Hydraulic**	
	Compression pressure	bar	**11,0**	
	Oil pressure	bar/rpm	**3/5000**	
	Radiator cap	bar	**0,8-1,0**	
	Thermostat opens	°C	**84**	
	Drive belt size - alternator	mm	**9,5x925**	
	Drive belt tension - alternator/PAS/AC	mm	**10-12/7-9/7-9**	
Lubricants and capacities				
Engine oil options				
	Ambient temperature range		**Cold climate**	
	Engine oil grade	SAE	**5W/30**	
	Engine oil classification	API/ACEA	**SJ/A2-96**	
	Ambient temperature range		**Moderate climate**	
	Engine oil grade	SAE	**10W/40**	
	Engine oil classification	API/ACEA	**SJ/A2-96**	
	Ambient temperature range		**Moderate climate alternative**	
	Engine oil grade	SAE	**10W/30**	
	Engine oil classification	API/ACEA	**SJ/A2-96**	
	Ambient temperature range		**Hot climate**	
	Engine oil grade	SAE	**20W/50**	
	Engine oil classification	API/ACEA	**SJ/A2-96**	
	Engine with filter(s)	litres	**4,0**	
Other lubricants and capacities				
	Manual gearbox oil grade	SAE	**80W/90**	
	Manual gearbox	litres	**2,6 4x4=3,3**	
	Automatic transmission fluid	Type	**Dexron II**	
	Differential front/AT	litres	**1,2 (AT)**	
	Differential oil grade - rear	SAE	**80W/90**	
	Differential rear	litres	**0,8**	
	Cooling system	litres	**5,5**	
	Brake fluid	Type	**DOT 3**	
Tightening torques				
	Cylinder head instructions			
Cylinder head				
		Renew bolts	**No**	
	Stage 1	Tighten	**29 Nm**	
	Stage 2	Tighten	**59 Nm**	
	Stage 3	Tighten	**64 Nm**	
Other engine tightening torques				

	Main bearings	Renew bolts/nuts	**No**	
	Main bearings	Stage 1	**18-24 Nm**	
	Main bearings	Stage 2	**39-47 Nm**	
	Big end bearings	Renew bolts/nuts	**No**	
	Big end bearings	Stage 1	**18-24 Nm**	
	Big end bearings	Stage 2	**39-42 Nm**	
	Sump bolts		**39-49 Nm**	
	Sump drain bolt		**39-44 Nm**	
	Flywheel/driveplate		**69-75 Nm**	
	Clutch pressure plate		**14-17 Nm**	
	Crankshaft pulley/damper centre bolt		**100 Nm**	
	Camshaft sprocket/gear		**9-10 Nm**	
	Camshaft carrier/cap		**17-20 Nm**	
	Camshaft/rocker cover		**4-5 Nm**	
	Spark plugs		**18-24 Nm**	
Chassis tightening torques				
	Front hub		**196 Nm+30°**	
	Rear hub		**196 Nm+30°**	
	Steering track rod end		**29-39 Nm**	
	Brake caliper to carrier	Front	**50 Nm**	
	Brake caliper carrier to hub	Front	**59 Nm**	
	Road wheels		**78-98 Nm**	
Starting and charging				
	Battery	V/RC(Ah)	**12/90 (50)**	
	Starter motor	Make	**Nippon Denso**	
	Starter motor	Type	**128000/1220**	
	Minimum starting voltage	V	**11**	
	Maximum cranking amps	A	**135-165**	
	Alternator/Regulator	Make	**Hitachi**	
	Alternator/Regulator	Type	**LT150-199O**	
	Alternator output at engine speed	A/V/rpm	**53/14/2500**	
	Voltage regulator	Type	**TR1Z56**	
	Regulated voltage	V	**14,2-14,8**	
Brake disc and drum dimensions				
	Disc runout	Front	**0,10 mm**	
	Disc runout	Rear	**0,10 mm**	
	Maximum drum diameter	Rear	**182 mm**	
	Minimum pad thickness	Front	**7,5 mm**	
28	Minimum pad thickness	Rear	**6,5 mm**	
	Minimum shoe thickness	Rear	**1,5 mm**	
	Parking brake travel	No. of notches	**3-4**	

Autodata Note 11

CO level

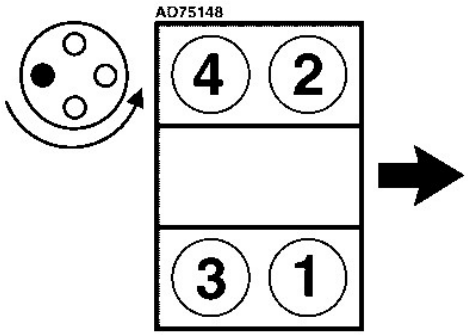
(S/CH) = 1,5 Vol.%.

Autodata Note 28

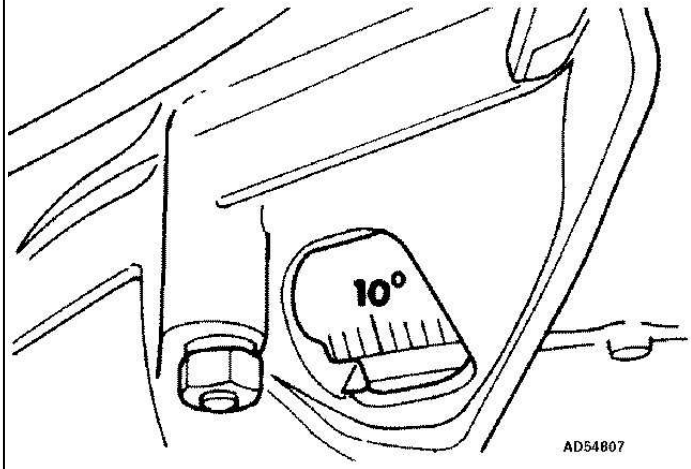
Minimum pad/shoe thickness

Measurement includes lining and pad/shoe backing plate.

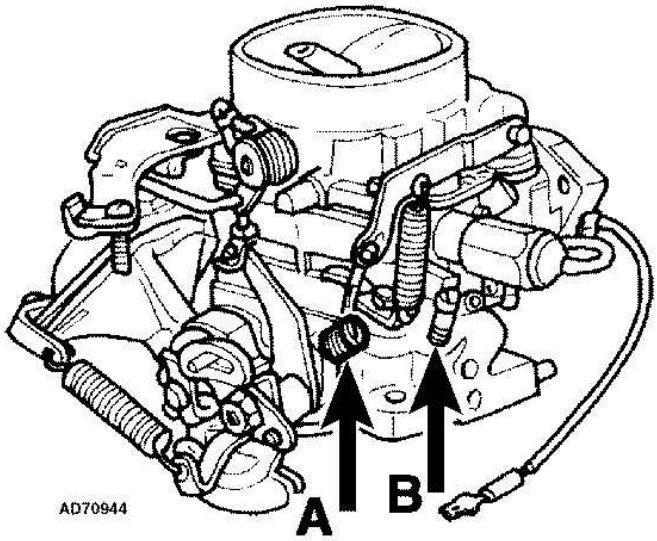
Cylinder layout



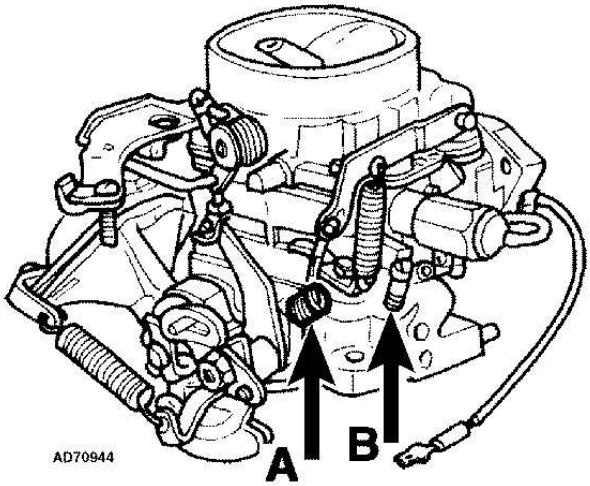
Timing mark



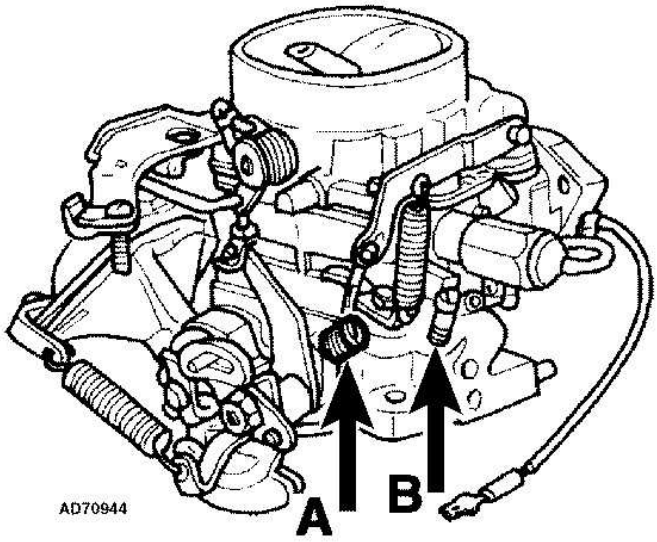
Idle speed adjustment (A)



CO level adjustment (B)



CO level adjustment (B)



Tightening sequence