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St Georges Avenue , South Shields , NE34 6ET

Technical specifications

Ford Ka

169A4.000 (FP4) / ABAA/1.2 ('09)

Vehicle identification

No. of cylinders	Type	4/OHC
Capacity (Fiscal)	cc	1242
Compression ratio	:1	11,1
Suitable for unleaded petrol		Yes
Minimum octane rating	RON	95
Ignition system	Make	Magneti Marelli
Ignition system	Type	IAW 5SF8
Ignition system	Description	Map-DI
Trigger location		Cam/Crankshaft
Fuel system	Make	Magneti Marelli
Fuel system	Type	IAW 5SF8
Fuel system	Description	MFI-s
Air metering	Type	MAP
Combined ignition and fuel ECM		Yes
Diagnostic socket		Yes

Ignition system

Ignition system

Ignition coil	Make	Marelli
Ignition coil supply voltage	+ with ballast V	12,0
Primary resistance	Ohm	0,45-0,55
Secondary resistance	Ohm	5400-6600
Firing order		1-3-4-2

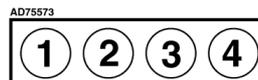


Fig75573

Tuning and emissions

Tuning and emissions

Ignition timing - basic BTDC	°Engine/rpm	Not adjustable
Ignition advance checks	°Engine/rpm	ECM Controlled
Idle speed	rpm	750±50 Not adjustable
Oil temperature for CO test	°C	80
CO level at idle speed - tailpipe	Vol. % CO	0,2 Max Not adjustable
HC level at idle speed	ppm	100
CO2 level at idle speed	Vol. % CO2	14,5-16
O2 level at idle speed	Vol. % O2	0,1-0,5
Increased idle speed for CO test	rpm	2500-3000
CO content at increased idle speed	Vol. %	0,2
Lambda at increased idle	λ	0,97-1,03

Spark plugs

Spark plugs

Spark plugs	Original equipment	NGK
Spark plug	Type	DCPR7E-N-10
Spark plugs	Make	Bosch
Spark plug	Type	YR7DE
Spark plugs	Make	NGK
Spark plug	Type	DCPR7E-N-10

Fuel system

Fuel system

System pressure	bar	3,4-3,6
Engine coolant temperature (ECT) sensor	Ohm/°C	309/80
Crankshaft position (CKP) sensor/engine speed (RPM) sensor	Ohm	1134-1386

Service checks and adjustments

Service checks and adjustments

Valve clearance -INLET	mm	0,30 cold
Valve clearance -EXHAUST	mm	0,40 cold
Oil pressure	bar/rpm	0,7/750

Thermostat opens

°C 86-90

Lubricants and capacities

Engine oil options

Ambient temperature range	All temperatures
Engine oil grade	SAE 5W-40 Synthetic
Engine oil classification	OEM WSS-M2C917-A
Engine oil classification	API/ACEA /C3
Engine with filter(s)	litres 2,8

Other lubricants and capacities

Manual transmission oil grade	SAE 75W-85 Synthetic
Manual transmission oil classification	GL-4+
Manual transmission	litres 1,7
Coolant	Type WSS-M97B44-D
Coolant	Colour Orange
Cooling system - total capacity	litres 4,8
Brake fluid	Type DOT 4
Brake fluid classification	WSS-M6C57-A2
Brake fluid	litres 0,5
Clutch fluid	Type DOT 4
Clutch fluid classification	WSS-M6C57-A2

Tightening torques

Tightening torques

Cylinder head instructions

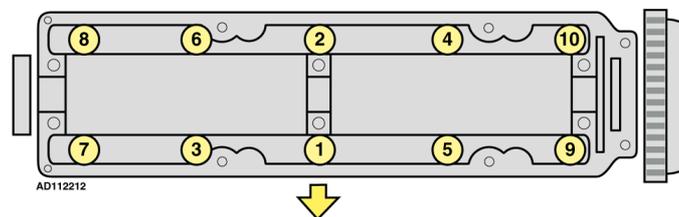


Fig112212

Cylinder head

Renew bolts Yes

Tighten 20 Nm

Tighten 30 Nm

Tighten 90°

Tighten 90°

Other engine tightening torques

Main bearings	Renew Yes bolts/nuts
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Main bearings	Stage 1 20 Nm
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Main bearings	Stage 2 90°
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Big end bearings	Renew Yes bolts/nuts
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Big end bearings	Stage 1 20 Nm
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Big end bearings	Stage 2 40°
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Sump drain bolt	20 Nm
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Flywheel/driveplate	15 Nm+40°/-
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- Use new bolts.

Clutch pressure plate	16±3 Nm
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Crankshaft pulley/damper centre bolt	20 Nm+90°
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Crankshaft pulley/damper bolts	28±5 Nm
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Camshaft sprocket/gear	79±14 Nm
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Camshaft carrier/cap	
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Camshaft carrier cap

- M6 = 10±2 Nm
- M8 = 23±5 Nm

Camshaft/rocker cover	10±2 Nm
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Inlet manifold to cylinder head	28±5 Nm
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Exhaust manifold to cylinder head	10 Nm+60°
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- Use new nuts/bolts.

Water pump	10±2 Nm
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Spark plugs	30±5 Nm
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Crankshaft position (CKP) sensor/engine speed (RPM) sensor	9 Nm
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Lambda sensor (Oxygen)	48±10 Nm
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Engine oil pressure switch	35±6 Nm
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Chassis tightening torques

Front hub	
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Front hub

Use new nut.

1. 70 Nm + 55±2°
2. 275±75 Nm

Rear hub	312±52 Nm
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- Use new nuts/bolts.

Steering wheel	53±13 Nm
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Steering rack/box mounting	68±13 Nm
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Steering track rod end	41±9 Nm
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Brake disc to hub	Front 13±3 Nm
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Brake caliper/carrier to hub	Front 62±11 Nm
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Back plate to hub	Rear 25±2 Nm
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ABS sensor	Front 8±4 Nm
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ABS sensor	Rear 8±4 Nm
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Road wheels	
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Road wheels

- Steel wheels = 88±18 Nm
- Alloy wheels = 114±26 Nm

Starting and charging

Starting and charging

Battery	V/RC(Ah) 12
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Brake disc and drum dimensions

Brake disc and drum dimensions

Minimum disc thickness for replacement - solid	Front 9,2 mm
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Minimum disc thickness after refacing - solid	Front 9,55 mm
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Maximum drum diameter for replacement	Rear 181,4 mm
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Minimum pad thickness	Front 1,6 mm
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Air conditioning

Air conditioning

No. of AC service connectors	2
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Air conditioning restrictor type	Expansion valve
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Compressor clutch/magnetic coupling	Yes
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Compressor variable displacement solenoid	No
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Air conditioning refrigerant	Type R134a
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Air conditioning refrigerant quantity	grams 500±40
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Air conditioning oil group	PAG
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Air conditioning oil	Type Dens Oil 8
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Air conditioning oil quantity	cm ³ 95
Air conditioning oil viscosity	ISO 46

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