Haynes Renault Clio (June 2001 - 2005)

Renault Clio Service and Repair Manual

Models Covered: June 2001 to 2005 (Y to 55 reg) Petrol & Diesel

Published by Haynes

Introduction to Your Manual

This Haynes Service and Repair Manual provides comprehensive instructions and detailed illustrations to assist owners in maintaining and repairing their Renault Clio vehicles. The manual covers models manufactured between June 2001 and 2005, including both petrol and diesel engine variants. It is designed to help you keep your vehicle in optimal running condition and perform various tasks, from routine maintenance to more complex repairs.

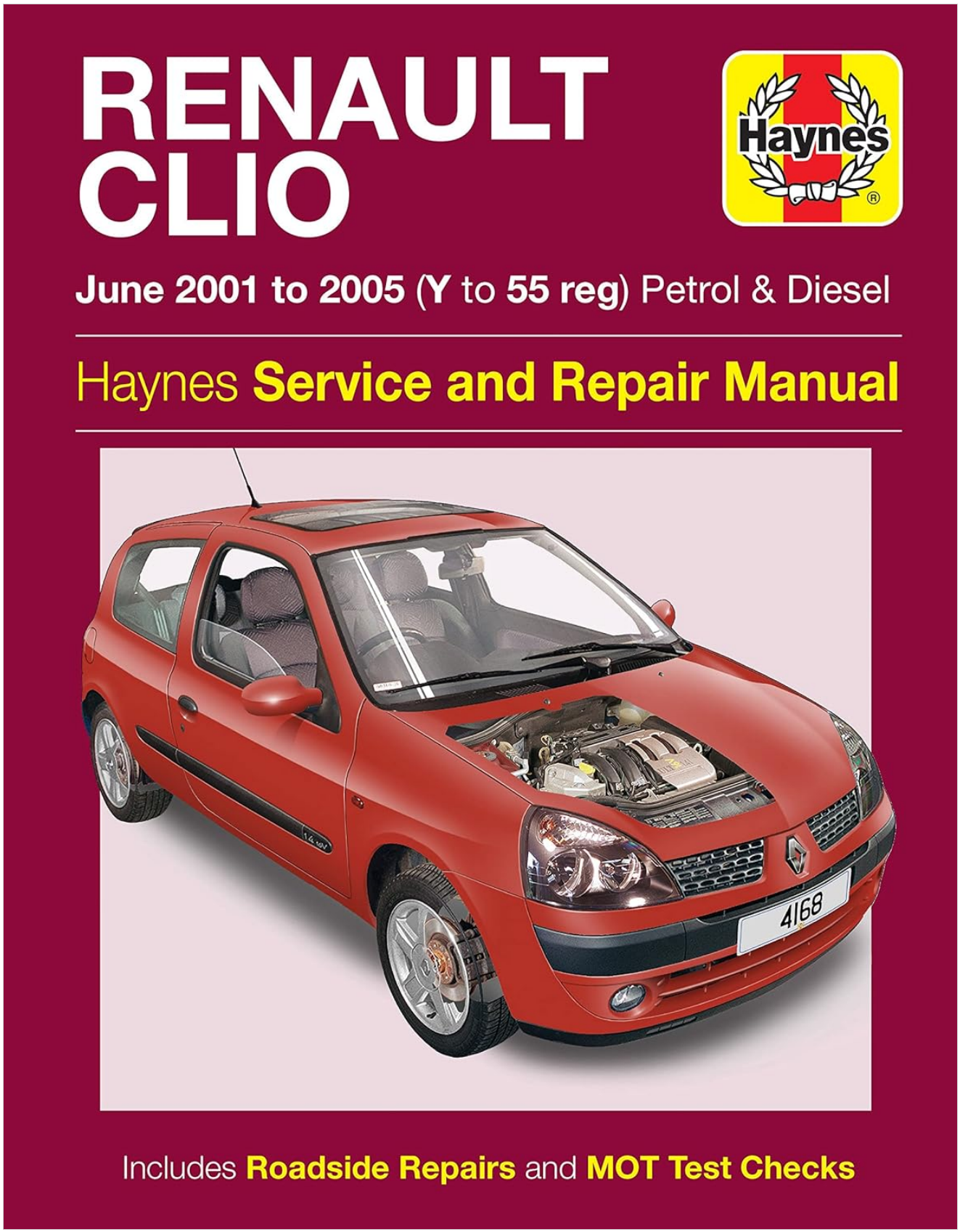


Image: Front cover of the Haynes Renault Clio Service and Repair Manual, featuring a red Renault Clio car.

The manual is structured to guide you through each procedure with clear, step-by-step instructions. Tasks are graded by difficulty using a 'spanner rating' system, indicating whether a job is suitable for a novice or requires expert experience. Practical tips and shortcuts, known as 'Haynes Hints' and 'Tool Tips', are included to simplify tasks and suggest alternative methods for parts removal without specialized tools.

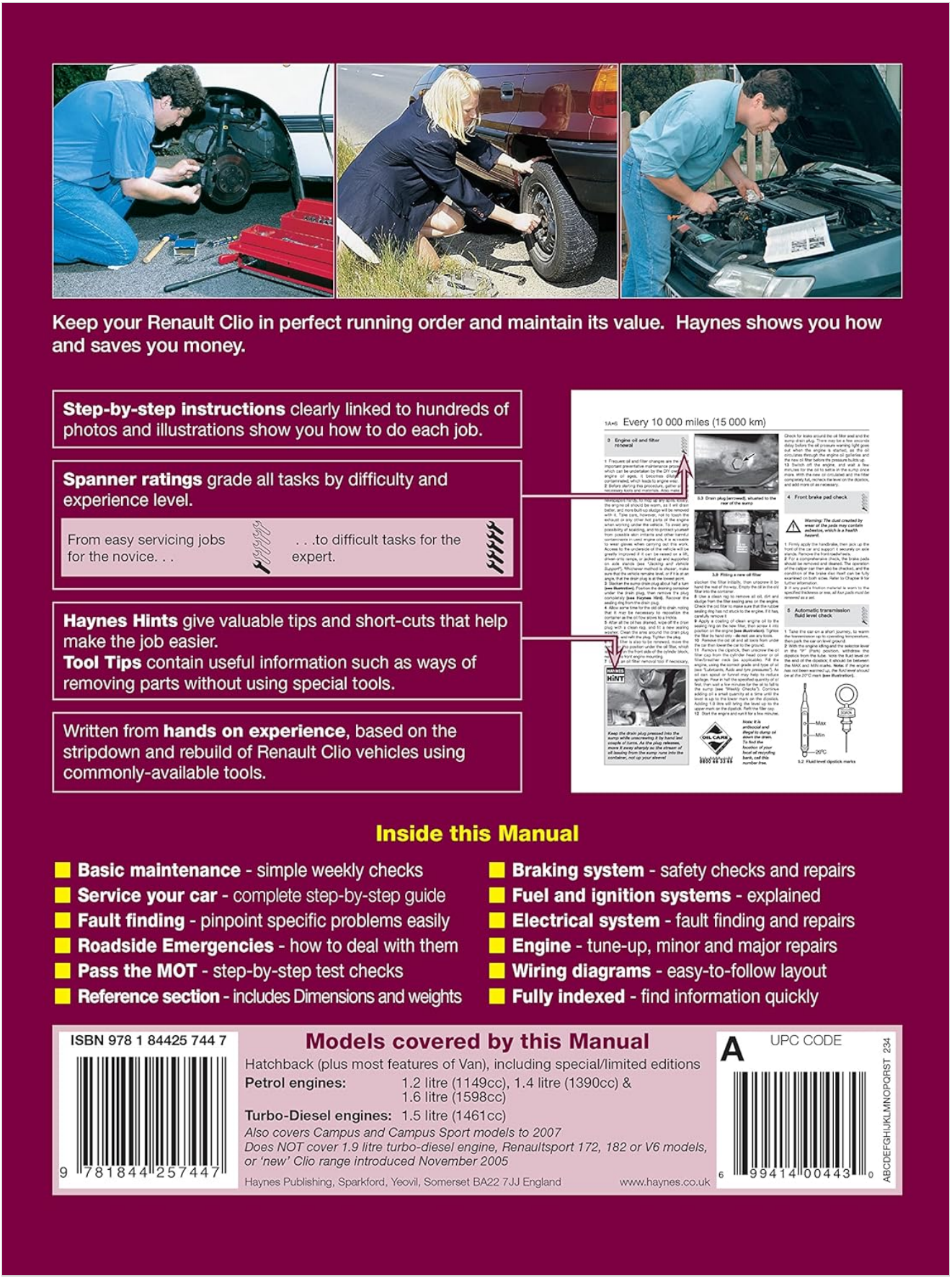


Image: An internal page from the manual highlighting features like step-by-step instructions, spanner ratings, Haynes Hints, and Tool Tips, alongside images of mechanics working on a car.

Using Your Manual

This manual is based on a complete stripdown and rebuild of the Renault Clio, ensuring that all instructions are derived from practical experience. It emphasizes DIY-friendly techniques, making it accessible for owners with

varying levels of mechanical expertise. The content is supported by over 700 pictures and diagrams to visually aid in understanding each procedure.

Image: A page detailing Haynes' methodology, including basing manuals on stripdowns and rebuilds, using DIY-friendly techniques, and saving time on fault diagnosis.

To effectively use this manual, locate the relevant section for your task. Each section begins with an overview, followed by detailed steps. Pay close attention to safety warnings and notes provided throughout the text. The manual also includes a 'Fault Finder' section to assist in diagnosing common issues, helping to avoid unnecessary time spent on troubleshooting.

Maintenance Procedures

Regular maintenance is crucial for the longevity and performance of your Renault Clio. This manual covers a wide range of maintenance tasks, from simple weekly checks to more involved servicing procedures for both petrol and diesel engines.

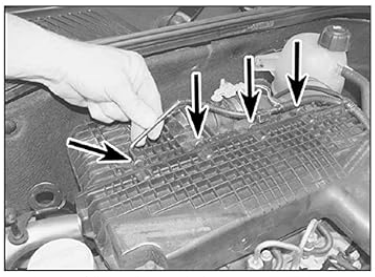
Weekly Checks

- Engine oil level
- Coolant level
- Brake fluid level
- Screen washer fluid level
- Tyre condition and pressure
- Wiper blades
- Battery
- Electrical systems

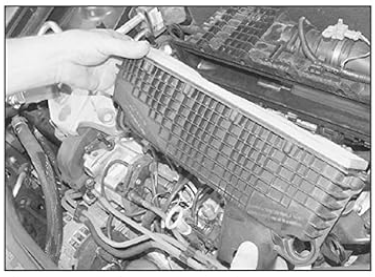
Routine Servicing (Diesel Models Example)

For diesel models, specific maintenance procedures are outlined, such as air filter and fuel filter renewal.

17.1 Disconnecting the air intake pipe



17.2a Undo the retaining screws . . .



17.2b . . . release the air filter housing . . .

Every 36 000 miles (60 000 km) or 4 years

17 Air filter element renewal

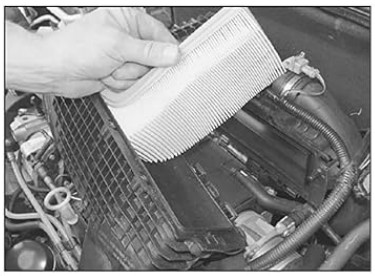
1 Unclip the cover from the top of the engine and disconnect the air intake hose from the front of the air filter housing **(see illustration)**.
2 Undo the four retaining screws from the top of the housing and withdraw it from the top of the engine **(see illustration).**
3 Lift the element from the air filter housing, noting its fitted position **(see illustration)**.
4 Clean the inside of the main body and cover, then insert the new filter element.
5 Make sure the housing is located correctly – the bottom supports must locate securely, and the top must engage correctly to make a good seal.
6 Tighten the retaining screws across the top of the housing and refit the air intake hose and engine cover.

18 Fuel filter renewal

Note: *The fuel lines on the top of the fuel filter are all colour-coded on the securing clips, make a note of the position of the fuel lines before removal.*
1 The fuel filter is located in the left-hand side front of the engine compartment, next to the battery. A water drain screw is provided on the base of the filter unit **(see illustration)**.
2 Place a suitable container beneath the drain screw. To make draining easier, a suitable length of tubing can be attached to the outlet on the screw to direct the fuel flow.
3 Release the securing clip and disconnect one of the fuel lines **(see illustration)**, then open the drain screw by turning it anti-clockwise.
4 Allow the entire contents of the filter to drain into the container, then tighten the drain screw.
5 Holding the new filter next to the old filter, disconnect each fuel line in turn off the old filter and connect them onto the new filter.
6 Unclip the old filter from its mounting bracket on the battery tray and clip the new filter in its place **(see illustration)**. Dispose of the old filter using the correct method.
7 Open the drain plug on the new filter and squeeze the hand pump **(see illustration)** until the fuel flows through the filter, then securely tighten the drain plug. For further information, see Chapter 4B to prime and bleed the fuel system.

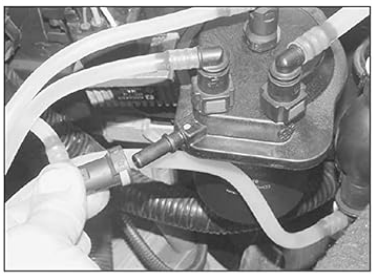
19 Rear brake shoe and drum check

1 Remove the rear brake drums, and check the brake shoes for signs of wear or contamination. At the same time, also inspect the wheel cylinders for signs of leakage, and

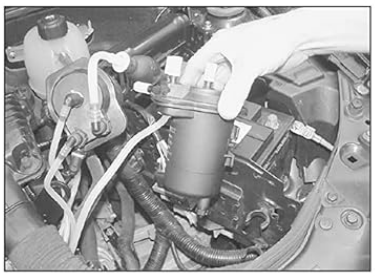


17.3 . . . and lift out the air filter element

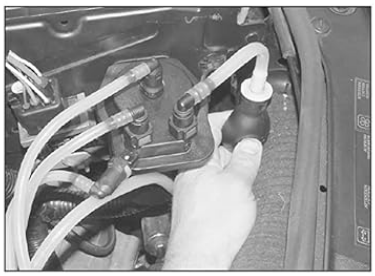
18.1 Fuel filter drain screw (arrowed)



18.3 Disconnecting one of the fuel lines



18.6 Dispose of the old filter and fit new filter into mounting bracket



18.7 Squeeze the hand pump to fill filter with fuel

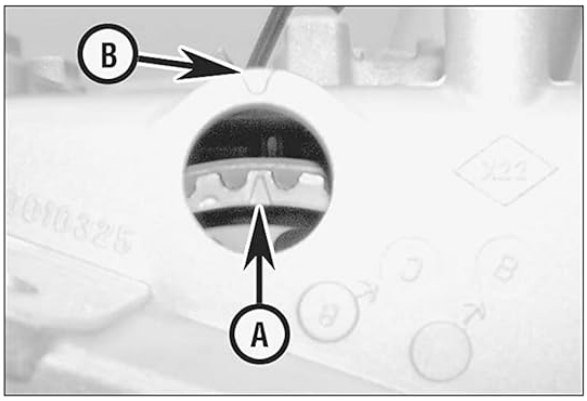
Image: A page illustrating maintenance procedures for diesel models, specifically air filter element renewal and fuel filter renewal, with accompanying photographs.

Air Filter Element Renewal: This procedure should be performed every 36,000 km or every 4 years. It involves disconnecting the air intake pipe, undoing retaining screws, removing the air filter housing cover, and replacing the element. Detailed steps with illustrations guide the user through this process.

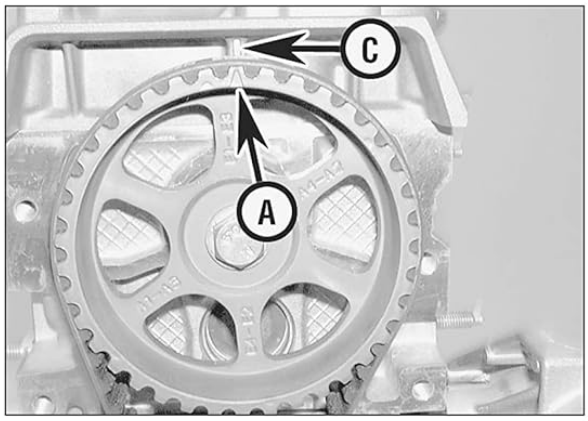
Fuel Filter Renewal: This involves disconnecting fuel lines, draining the filter, and replacing it. Specific instructions are provided for different engine types and configurations.

Engine In-Car Repairs (Petrol Models Example)

The manual provides detailed guidance for in-car engine repairs, such as adjusting valve clearances or checking timing marks.



3.6b The TDC timing mark (A) on the camshaft sprocket should align with the reference mark (B) on the top of the lower engine mounting bracket/upper timing belt cover . . .



3.6c . . . or the reference mark (C) at the top of the valve cover

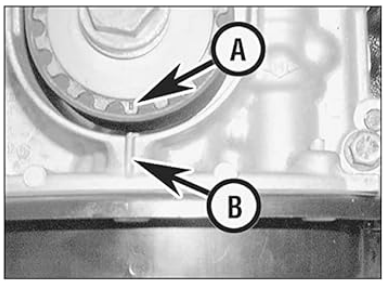
7 If the crankshaft pulley is now removed (see Section 5), the timing mark on the crankshaft sprocket should be aligned with the TDC mark at the bottom of the oil pump flange **(see illustration)**. If necessary, the flywheel may be locked to the cylinder block by inserting a suitable bolt through the special hole in the left-hand front of the block and locating it in the hole in the flywheel. Renault technicians use a special tool for this, and it is worth displaying a warning on the steering wheel as a precaution against someone attempting to start the engine with the tool in position.

4 Valve clearances – adjustment

Note: *This operation is not part of the maintenance schedule. It should be undertaken if noise from the valve gear becomes evident, or if loss of performance gives cause to suspect that the clearances may be incorrect. A new valve cover gasket will be required.*

1 Remove the inlet manifold, as described in Chapter 4A.

2 Unscrew the bolts, and remove the valve cover and gasket. Discard the gasket, a new one must be used on refitting.



3.7 The timing mark (A) on the crankshaft sprocket should be aligned with the timing mark (B) on the oil pump flange

3 Remove the spark plugs, with reference to Chapter 1A, in order to make turning the engine easier. This however is not essential.

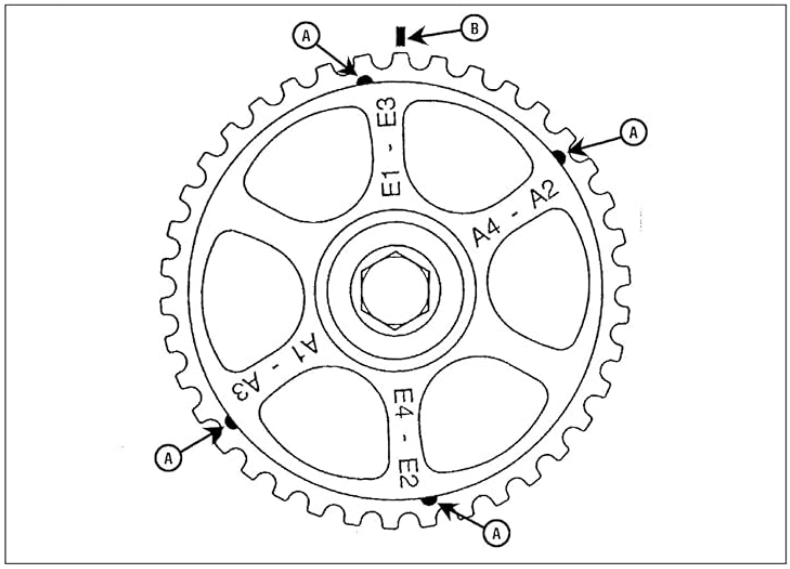
4 Draw the valve positions on a piece of paper, numbering them according to their cylinders, from the flywheel end of the engine (ie, 1E, 1I, 2E, 2I and so on). The inlet valves are on the inlet manifold side of the cylinder head, and the exhaust valves are on the exhaust manifold side. As the valve clearances are adjusted, cross them off.

5 There are two methods of adjusting the valve clearances; the 'camshaft mark' method and the 'exhaust valve open' method. The 'camshaft mark' method can only be used on the D7F engine, however, the 'exhaust valve open' method can be used on both engines.

Camshaft mark method

D7F engine

6 Turn the crankshaft to bring No 1 piston to TDC on compression, as described in Section 3. Do not lock the crankshaft in position. Continue to turn the crankshaft until the first of the valve clearance adjustment marks (semi-circular marks) on the camshaft sprocket is aligned with the reference mark on the engine mounting bracket/upper timing belt cover, or the valve cover, as applicable (if necessary, temporarily refit the valve cover to check this) **(see illustration)**.



4.6 On the D7F engine, the first of the valve clearance adjustment marks (A), marked E1-E3 on the camshaft sprocket spoke, should be aligned with the reference mark (B) on the valve cover

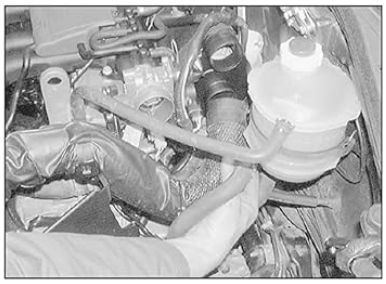
Image: A page detailing 1.2 litre petrol engine in-car repair procedures, including aligning TDC timing marks on the camshaft sprocket and valve clearance adjustments.

TDC Timing Mark Alignment: Instructions are given for aligning the TDC timing mark on the camshaft sprocket, crucial for engine timing. This involves removing the upper engine mounting bracket/upper timing belt cover and using specific reference marks.

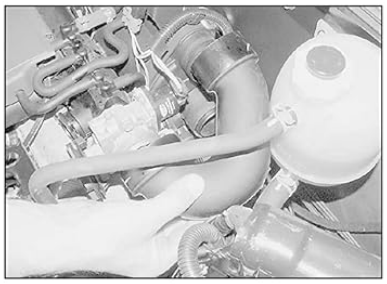
Valve Clearances Adjustment: Procedures for checking and adjusting valve clearances are outlined, with notes on when this adjustment is necessary.

Fuel and Exhaust Systems (Petrol Models Example)

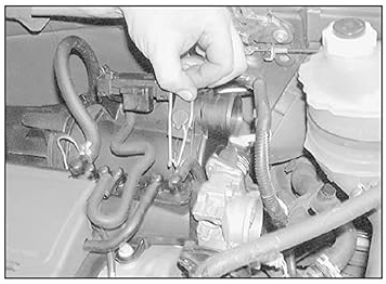
The manual also covers components of the fuel and exhaust systems, detailing removal and installation procedures.



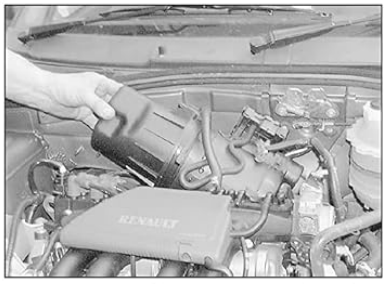
2.4a Removing the inlet air trunking . . .



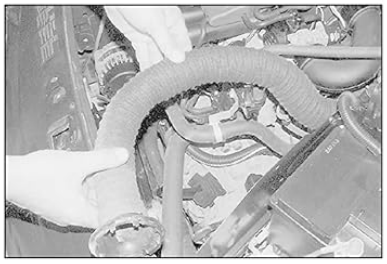
2.4b . . . and the air cleaner-to-inlet manifold trunking – D7F engine



2.5a Release the rubber straps . . .



2.5b . . . then lift the air cleaner from the engine – D7F engine



2.5c Removing the inlet duct from the front of the engine compartment – D7F engine

2.6 Disconnect the coolant hose from the air inlet elbow . . .

intake pipe, then remove the inlet air trunking securing screw, disconnect the breather hoses from the trunking, and remove the trunking. Similarly, remove the air cleaner-to-inlet manifold trunking **(see illustrations)**.

5 Release the two rubber securing straps, then lift the air cleaner assembly from the engine. If necessary, remove the inlet duct from the front of the engine compartment **(see illustrations)**.

D4F engine

6 Disconnect the coolant hose from the air inlet elbow on the front of the air cleaner **(see illustration)**.

7 If required, disconnect the inlet air duct, then unscrew the bolts and unhook the cover. Remove the element **(see illustrations)**.

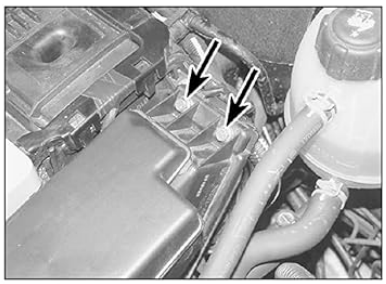
8 Unbolt and remove the base.

K4J and K4M engines

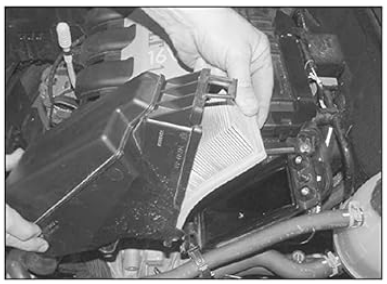
9 Disconnect the rubber strap and release the hose from the side clip, then remove the resonator box and duct from the air cleaner housing on the rear of the cylinder head **(see illustrations)**.

10 Undo the retaining screws then unhook the air cleaner housing and remove it from the inlet manifold **(see illustration)**.

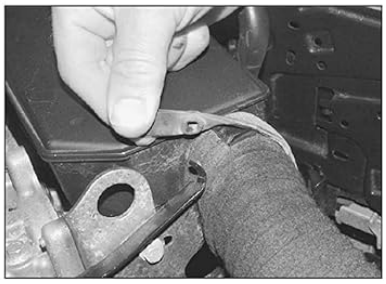
11 Note how the air cleaner element is fitted, then remove it from the housing **(see illustration)**.



2.7a . . . then unscrew the bolts . . .



2.7b . . . unhook the cover and remove the element – D4F engine



2.9a Disconnect the rubber strap . . .

2.9b . . . release the hose . . .

2.9c . . . and remove the resonator box and duct from the air cleaner housing – K4J and K4M engines

Image: A page illustrating various steps for working on the petrol engine fuel and exhaust systems, such as removing air trunking, air cleaner components, and hoses.

Removing Inlet Air Trunking and Air Cleaner: Step-by-step instructions with multiple images show how to remove the inlet air trunking, air cleaner-to-inlet manifold trunking, and the air cleaner assembly from the engine compartment. This often involves releasing rubber straps, unscrewing bolts, and disconnecting hoses.

Troubleshooting

The manual includes a dedicated 'Fault Finder' section designed to help diagnose common vehicle problems. This section provides guidance on identifying symptoms and pinpointing potential causes, which can save time and effort

during repairs. Refer to the 'Fault Finding' index for specific issues.

SPECIFICATIONS

Detailed specifications for various components and fluids are provided to ensure correct maintenance and repair procedures are followed.

Fluid Capacities and Specifications (Petrol Models Example)

1A•2 Servicing specifications – petrol models

Lubricants and fluids

Refer to *Weekly checks* on page 0•18

Capacities

Engine oil	Excluding oil filter	Including oil filter
1.2 litre:		
D7F engine	3.5 litres	4.0 litres
D4F engine	3.5 litres	4.0 litres
1.4 litre K4J engine	4.25 litres	4.9 litres
1.6 litre K4M engine	4.25 litres	4.9 litres
Difference between MAX and MIN dipstick marks	1.5 to 2.0 litres depending on engine	
Cooling system		
1.2 litre:		
D7F engine	4.5 litres	
D4F engine	5.0 litres	
1.4 litre K4J engine	5.7 litres	
1.6 litre K4M engine	5.7 litres	
Manual and sequential transmission	3.4 litres	
Automatic transmission	6.0 litres	
Fuel tank	50 litres	

Cooling system

Antifreeze mixture:	Antifreeze	Water
Protection to –23°C	35%	65%
Protection to –40°C	50%	50%

Fuel system

Specified idle speed (non-adjustable)	750 ± 50 rpm
Idle mixture CO content (non-adjustable)	0.5% maximum (0.3% at 2500 rpm)

Ignition system

Firing order	1-3-4-2	
Location of No 1 cylinder	Flywheel end	
Ignition timing	Controlled by ECU – see Chapter 5B	
Spark plugs:	**Type**	**Electrode gap**
1.2 litre D4F engine	Bosch VR 8 SE	0.9 mm
	Champion REA 8 MCL	0.9 mm
All other engines	Bosch FR 7 DE	0.9 mm
	Eyquem RFC 50 LZ 2E	0.9 mm

Brakes

Front disc brakes:	
Pad thickness (including backing):	
New	18.0 mm
Minimum thickness	6.0 mm
Rear disc brakes:	
Pad thickness (including backing):	
New	15.0 mm
Minimum thickness	6.0 mm
Rear drum brakes:	
Shoe thickness (friction material only):	
New:	
Leading	4.6 mm
Trailing	3.3 mm
Minimum thickness	2.0 mm

Torque wrench settings	Nm	lbf ft
Roadwheel bolts	90	66
Spark plugs	25 to 30	18 to 22

Image: A page displaying servicing specifications for petrol models, including lubricants, fluids, capacities, cooling system, fuel system, ignition system, brakes, and torque wrench settings.

Selected Specifications for Petrol Models

Category	Item	Specification
Engine Oil Capacities	1.2 litre D7F engine	3.5 litres (excluding oil filter) / 4.0 litres (including oil filter)
	1.4 litre K4J engine	4.0 litres (excluding oil filter) / 4.5 litres (including oil filter)
	1.6 litre K4M engine	4.25 litres (excluding oil filter) / 4.9 litres (including oil filter)
	Difference between MAX and MIN dipstick marks	1.5 to 2.0 litres depending on engine
Cooling System Capacities	1.2 litre D7F engine	4.5 litres
	1.4 litre K4J engine	5.0 litres
	1.6 litre K4M engine	5.7 litres
Automatic Transmission	Capacity	6.0 litres
Fuel Tank	Capacity	50 litres
Antifreeze Mixture	Protection to -25°C	35% Antifreeze / 65% Water
	Protection to -40°C	50% Antifreeze / 50% Water
Fuel System	Specified idle speed (non-adjustable)	750 ± 50 rpm
	Idle mixture CO content (non-adjustable)	0.5% maximum (0.3% at 2500 rpm)
Ignition System	Firing order	1-3-4-2
	Location of No.1 cylinder	Flywheel end
	Ignition timing	Controlled by ECU – see Chapter 5B
Spark Plugs	Type	Bosch VR 8 SE, Champion REA 8 MCL, Bosch FR 7 DE, Eyquem RFC 50 LZ 2E
	Electrode gap	0.9 mm
	1.2 litre D4F engine	0.9 mm
	All other engines	0.9 mm
Brakes	Front disc brakes: Pad thickness (including backing)	New: 18.0 mm, Minimum thickness: 6.0 mm
	Rear disc brakes: Pad thickness (including backing)	New: 15.0 mm, Minimum thickness: 6.0 mm
	Rear drum brakes: Shoe thickness (friction material only)	New: 4.6 mm (leading), 3.8 mm (trailing)

Category	Item	Specification
	Minimum thickness	2.0 mm
	Torque wrench settings: Roadwheel nuts	90 Nm / 66 lbf ft
Spark Plugs	Torque	25 to 30 Nm / 18 to 22 lbf ft

General Product Information

- **Publisher:** J H Haynes & Co Ltd
- **Language:** English
- **ISBN-10:** 0857339303
- **ISBN-13:** 978-0857339300
- **Item Weight:** 1.19 pounds
- **Dimensions:** 8.27 x 0.71 x 10.55 inches

Warranty and Support

This manual serves as a comprehensive guide for vehicle maintenance and repair. It does not provide a warranty for the vehicle itself or for any repairs performed using its instructions. For inquiries regarding the content of this manual or for publisher support, please contact J H Haynes & Co Ltd directly.
