

## Haynes Granada

# Haynes Repair Manual for Ford Granada Petrol (Sept 1977 - Feb 1985)

Official Service and Repair Instructions

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## 1. INTRODUCTION TO YOUR HAYNES MANUAL

This Haynes Service and Repair Manual provides comprehensive instructions for the Ford Granada Saloon and Estate models, specifically those manufactured between September 1977 and February 1985, covering vehicles up to 'B' registration. It details procedures for petrol engines, including the 2.0 litre (1993cc) 4-cylinder, and the 2.3 litre (2293cc) and 2.8 litre (2792cc) V6 engines.

The manual is designed to assist both the novice and experienced mechanic in performing maintenance, service, and repair tasks. All instructions are based on a complete stripdown and rebuild of the vehicle, ensuring accuracy and practicality for DIY enthusiasts.

# FORD GRANADA



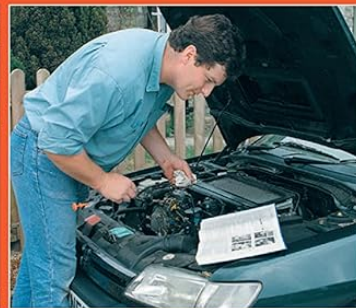
Sept 1977 to Feb 1985 (up to B registration) Petrol

## Haynes **Service and Repair Manual**



Includes **Fault Finding** and **MOT Test Check** Sections

**Figure 1.1:** Front cover of the Haynes Repair Manual for Ford Granada Petrol models. This image displays a red Ford Granada car with a cutaway view revealing its engine and chassis components, indicating the detailed nature of the manual's content. The cover also specifies the covered years (Sept 1977 to Feb 1985) and engine types (Petrol).



Keep your Ford Granada in perfect running order and maintain its value. Haynes shows you how and saves you money.

**Step-by-step instructions** clearly linked to hundreds of photos and illustrations show you how to do each job.

**Spanner ratings** grade all tasks by difficulty and experience level.

From easy servicing jobs for the novice...



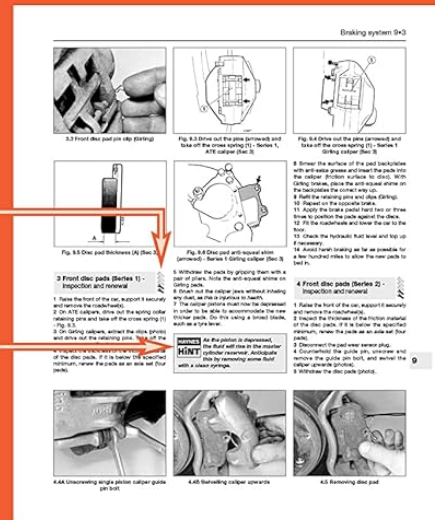
...to difficult tasks for the expert.



**Haynes Hints** give valuable tips and short-cuts that help make the job easier.

**Tool Tips** contain useful information such as ways of removing parts without using special tools.

**This Haynes Manual** was written from hands-on experience, based on the stripdown and rebuild of a Ford Granada using commonly-available tools.



## Inside this Manual

- **Service your car** – complete step-by-step guide
- **Fault finding** – pinpoint specific problems easily
- **Pass the MOT** – step-by-step test checks
- **Filters and fluids** – checking and renewal
- **Braking system** – safety checks and repairs

- **Fuel and ignition systems** – explained
- **Electrical system** – fault finding and repairs
- **Engine** – tune-up, minor and major repairs
- **Wiring diagrams** – easy-to-follow layout
- **Fully indexed** – find information quickly

ISBN 1 85960 084 0



9 781859 600849

## Models covered by this Manual

Ford Granada 2.0, 2.3 & 2.8 Saloon & Estate models with petrol engines, including special/limited editions 2.0 litre (1993cc), 2.3 litre (2293cc) & 2.8 litre (2792cc) petrol

For information on Diesel engines, see book no. 1606

Haynes Publishing, Sparkford, Yeovil, Somerset BA22 7JJ England

www.haynes.co.uk

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**Figure 1.2:** Back cover of the Haynes Repair Manual. This image illustrates the key features of the manual, including step-by-step instructions, a 'spanner rating' system for task difficulty, helpful 'Haynes Hints', and 'Tool Tips'. It also lists the main sections covered, such as Service, Fault Finding, MOT Test Checks, Filters and Fluids, Braking System, Fuel and Ignition Systems, Electrical System, Engine, Wiring Diagrams, and a Fully Indexed section.



WE'VE BEEN HELPING VEHICLE OWNERS TO **DO IT YOURSELF** FOR OVER 60 YEARS

Never used a Haynes manual? This is what we do...



*Every manual is based upon a stripdown and rebuild*

- See your vehicle as never before, and learn from 700+ pictures and diagrams
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*We only show DIY friendly techniques*

- Instructions everybody can follow (novices welcome!)
- Using tools and equipment you have at home



*We save you time working out what is wrong!*

- Every Haynes manual includes a Fault Finder with 400+ issues covered
- Avoid “dead-ends” when you follow our step-by-step guidance

**Figure 1.3:** An informational graphic detailing the benefits of using a Haynes manual. It emphasizes that each manual is based on a complete vehicle stripdown and rebuild, provides DIY-friendly techniques suitable for all skill levels, and includes a Fault Finder section to help diagnose issues efficiently.

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Refer to	Page	IND•1
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**Figure 1.4:** The Contents page of the Haynes Repair Manual. This image provides an overview of the manual's structure, listing main sections such as 'Living with your Ford Granada', 'MOT Test Checks', 'Routine Maintenance', 'Repairs & Overhaul' (covering Engine, Transmission, Brakes, Electrical, Suspension, Body Equipment), 'Additional Information', 'Wiring Diagrams', and 'Reference'.

## 2. SAFETY PRECAUTIONS

Always prioritize safety when working on your vehicle. Before beginning any procedure, ensure the vehicle is securely supported on level ground. Disconnect the battery's negative terminal to prevent accidental electrical discharge, especially when working on electrical systems.

- Wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and sturdy footwear.
- Ensure adequate ventilation when working with chemicals, fuels, or exhaust fumes.
- Allow hot engine components to cool before handling.
- Use the correct tools for each task to prevent damage to components or injury.
- Refer to the manual's specific warnings and cautions throughout each section.

## 3. ROUTINE MAINTENANCE

Regular maintenance is crucial for the longevity and reliable operation of your Ford Granada. This section outlines essential routine checks and service procedures.

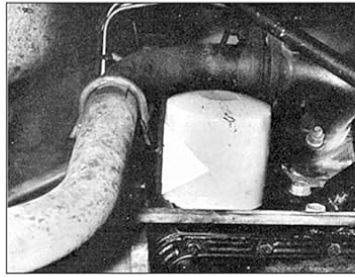
### 3.1. Engine Oil and Filter Change

Regularly changing the engine oil and filter is vital for engine health. Refer to the recommended service intervals in your vehicle's owner's handbook or the manual's maintenance schedule.

# Routine Maintenance



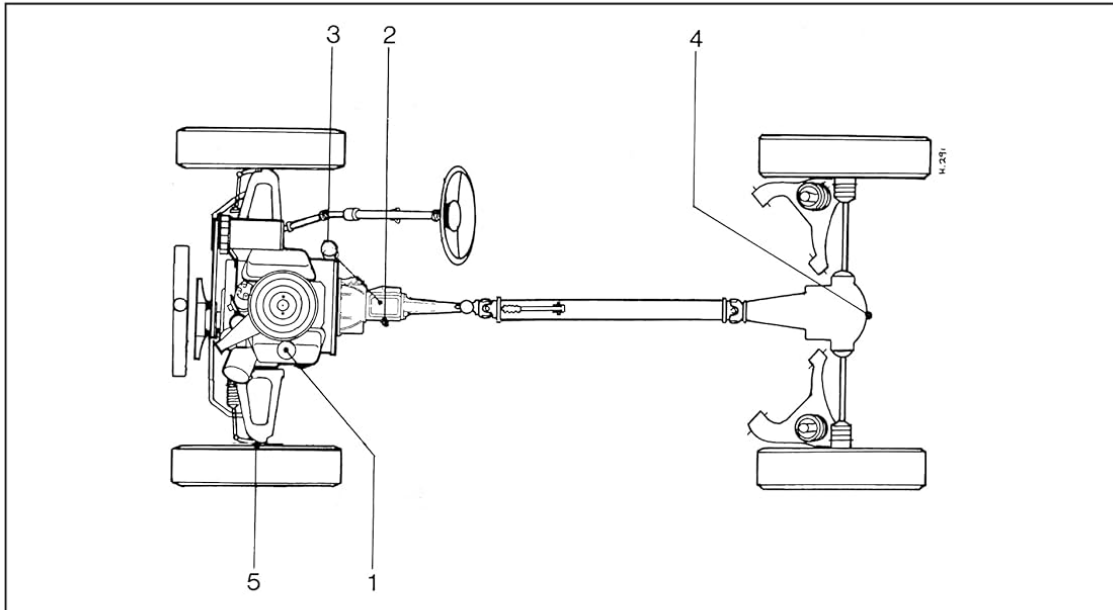
Engine sump drain plug



Change the oil filter



Check fan belt tension



## Recommended lubricants and fluids

### Component or system

- 1 Engine
  - 2 Manual gearbox\*
  - 3 Automatic transmission  
Early models (black dipstick)  
Later models (red dipstick)
  - 4 Rear axle
  - 5 Front wheel hub bearings
- Brake fluid reservoir
- Power steering  
Up to 1981  
1982 on
- Cooling system

### Lubricant type/specification

- Multigrade engine oil, viscosity range SAE 10W/30 to 10W/50, to API SF/CC or SF/CD
- Gear oil, viscosity SAE 80EP, to Ford spec SQM-2C-9008-A
- ATF to Ford spec SQM-2C-9007-AA  
ATF to Ford spec SQM-2C-9010-A
- Gear oil, viscosity SAE 90EP, to API GL5
- Multi-purpose lithium based grease to NLGI-2
- Hydraulic fluid to Ford spec SAM-6C9103-A
- ATF to Ford spec SQM-2C-9007-AA  
ATF to Ford spec SQM-2C-9010-A
- Antifreeze to Ford spec SSM-97B9103-A

\*Note: See Supplement for alternative lubricant for N type transmission

**Figure 3.1:** Examples of routine maintenance tasks. This image displays visual guides for draining the engine sump plug, changing the oil filter, and checking the fan belt tension. It also includes a diagram illustrating the vehicle's drivetrain components and a table listing recommended lubricants and fluids for various systems.

## 3.2. Recommended Lubricants and Fluids

Using the correct type and grade of lubricants and fluids is essential for optimal performance and to prevent damage. Consult the table below for specific recommendations.

**Table 3.1: Recommended Lubricants and Fluids**

Component or System	Lubricant/Specification
---------------------	-------------------------

Component or System	Lubricant/Specification
Engine	Multigrade engine oil, viscosity range SAE 10W/30 to 10W/50, to API SF/CC or SF/CD
Manual gearbox*	Gear oil, viscosity SAE 80EP, to Ford spec SQM-2C-9008-A
Automatic transmission	ATF to Ford spec SQM-2C-9007-AA (Early models, red dipstick)
Automatic transmission	ATF to Ford spec SQM-2C-9010-A (Later models, black dipstick)
Rear axle	Gear oil, viscosity SAE 90EP, to API GL5
Front wheel hub bearings	Multi-purpose lithium based grease to NLGI-2
Brake fluid reservoir	Hydraulic fluid to Ford spec SAM-6C9103-A
Power steering (Up to 1981)	ATF to Ford spec SQM-2C-9007-AA
Power steering (1982 onwards)	ATF to Ford spec SQM-2C-9010-A
Cooling system	Antifreeze to Ford spec SSM-97B9103-A

*\*Note: See Supplement for alternative lubricant for N type transmission.*

## 4. ENGINE AND ASSOCIATED SYSTEMS

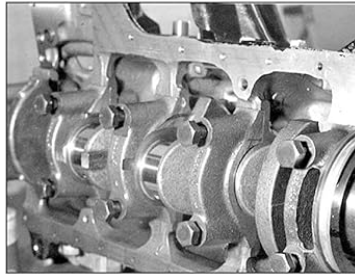
This section covers detailed procedures for the engine, including removal, overhaul, and reinstallation. It provides step-by-step guidance for various engine components.

### 4.1. Engine Assembly and Component Checks

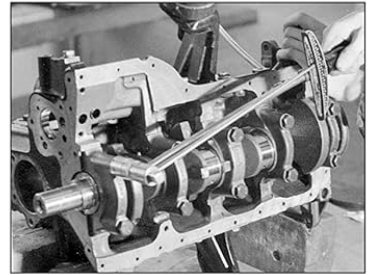
Accurate assembly and checking of engine components are critical for proper engine function. This includes fitting washers, positioning main bearing caps, checking crankshaft endfloat, and piston ring installation.



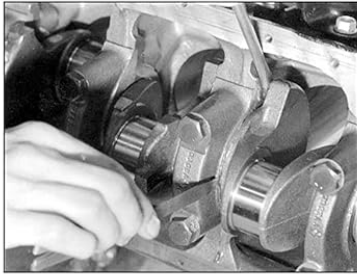
39.15 Fitting thrust washers to centre main bearing cap



39.16 All main bearing caps in position



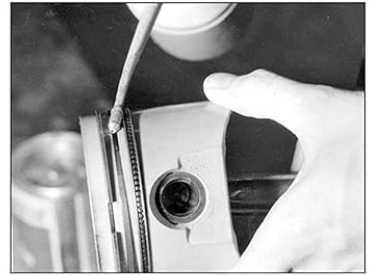
39.17 Tightening main bearing cap securing bolts



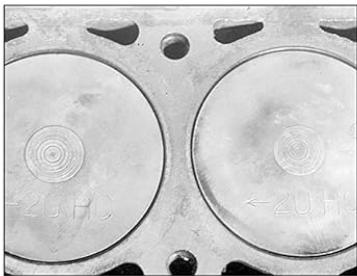
39.18 Using feeler gauges to check crankshaft endfloat



42.3 Positioning ring gaps



42.4 Lubricating pistons prior to fitting



42.5 Piston identification marks

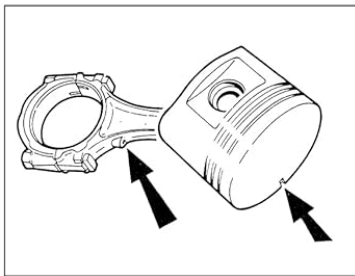
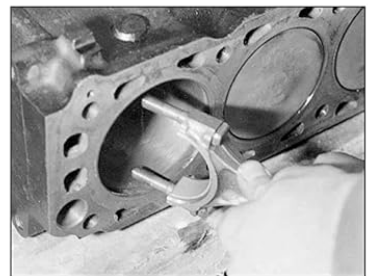
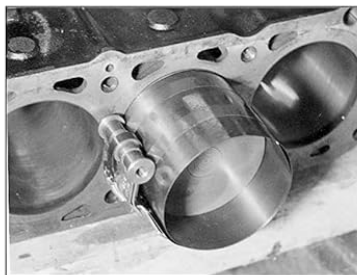


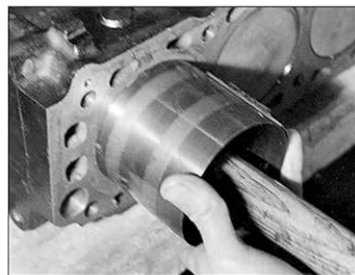
Fig. 1.10 Piston identification mark relative to connecting rod oil jet hole (Sec 42)



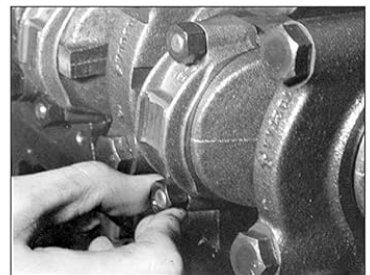
42.6a Inserting connecting rod into cylinder bore



42.6b Piston ring compressor correctly positioned



42.7 Pushing piston down bore



43.6 Refitting big-end cap securing nuts

**Figure 4.1:** Detailed views of engine assembly procedures. This image shows various steps such as fitting thrust washers to the main bearing cap, positioning main bearing caps, tightening securing bolts, using feeler gauges to check crankshaft endfloat, positioning piston rings, lubricating pistons, and identifying piston marks.

## 4.2. Engine Component Specifications

Precise measurements and clearances are essential for engine rebuilds. Refer to the following specifications for camshaft, pistons, gudgeon pins, connecting rods, cylinder head, and valves.

**Camshaft (cont.)**

Journal diameter - in (mm):	
Front .....	1.6531 to 1.6539 (41.99 to 42.01)
Centre .....	1.7562 to 1.7570 (44.61 to 44.63)
Rear .....	1.7712 to 1.7720 (44.99 to 45.01)
Bearing inner diameter - in (mm):	
Front .....	1.6549 to 1.6557 (42.035 to 42.055)
Centre .....	1.7580 to 1.7588 (44.655 to 44.675)
Rear .....	1.7730 to 1.7738 (45.035 to 45.055)
Endfloat - in (mm) .....	0.004 to 0.008 (0.104 to 0.204)
Colour code .....	Yellow

**Auxiliary shaft**

Endfloat - in (mm) .....	0.0021 to 0.0080 (0.054 to 0.204)
--------------------------	-----------------------------------

**Pistons**

Piston diameter:	
Standard grade:	
1 - in (mm) .....	3.5734 to 3.5738 (90.765 to 90.775)
2 - in (mm) .....	3.5738 to 3.5742 (90.775 to 90.785)
3 - in (mm) .....	3.5742 to 3.5746 (90.785 to 90.795)
4 - in (mm) .....	3.5746 to 3.5750 (90.795 to 90.805)
Oversize supplied in service:	
0.5 - in (mm) .....	3.5937 to 3.5947 (91.280 to 91.305)
1.0 - in (mm) .....	3.6134 to 3.6144 (91.780 to 91.805)
Piston clearance in cylinder bore - in (mm) .....	0.001 to 0.0024 (0.025 to 0.060)
Ring gap (in situ):	
Top - in (mm) .....	0.015 to 0.023 (0.38 to 0.58)
Centre - in (mm) .....	0.015 to 0.023 (0.38 to 0.58)
Bottom - in (mm) .....	0.0157 to 0.055 (0.4 to 1.4)

**Gudgeon pins**

Length - in (mm) .....	2.83 to 2.87 (72.0 to 72.8)
Diameter:	
Red - in (mm) .....	0.94465 to 0.94476 (23.994 to 23.997)
Blue - in (mm) .....	0.94476 to 0.94488 (23.997 to 24.000)
Yellow - in (mm) .....	0.94488 to 0.94500 (24.000 to 24.003)
Clearance in piston - in (mm) .....	0.0003 to 0.0006 (0.008 to 0.014)
Interference in connecting rod - in (mm) .....	0.0007 to 0.0015 (0.018 to 0.039)

**Connecting rods**

Bore diameters - in (mm):	
Big-end .....	2.165 to 2.166 (55.00 to 55.02)
Small-end .....	0.9434 to 0.9439 (23.964 to 23.976)
Bearing inside diameter (fitted) - in (mm):	
Standard .....	2.0474 to 2.0489 (52.006 to 52.044)
Undersize:	
0.25 mm .....	2.0376 to 2.0391 (51.756 to 51.794)
0.50 mm .....	2.0277 to 2.0292 (51.506 to 51.544)
0.75 mm .....	2.0179 to 2.0194 (51.256 to 51.294)
1.00 mm .....	2.0081 to 2.0096 (51.006 to 51.044)
Big-end bearing to journal clearance - in (mm) .....	0.0002 to 0.0023 (0.006 to 0.060)

**Cylinder head**

Cast identification number .....	0 (early models), 20 (later models)
Valve seat angle .....	44° 30' to 45°
Valve guide inside diameter, inlet and exhaust:	
Standard - in (mm) .....	0.3174 to 0.3184 (8.063 to 8.088)
Oversize:	
0.2 - in (mm) .....	0.3253 to 0.3263 (8.263 to 8.288)
0.4 - in (mm) .....	0.3332 to 0.3342 (8.463 to 8.488)
Parent bore for camshaft bearing liners:	
Front - in (mm) .....	1.6557 to 1.6549 (42.055 to 42.035)
Centre - in (mm) .....	1.7589 to 1.7580 (44.675 to 44.655)
Rear - in (mm) .....	1.7738 to 1.7730 (45.055 to 45.035)

**Valves**

Valve clearances (cold):	
Inlet - in (mm) .....	0.008 (0.20)
Exhaust - in (mm) .....	0.010 (0.25)
Valve timing:	
Inlet valve opens .....	24° BTDC
Inlet valve closes .....	64° ABDC
Exhaust valve opens .....	70° BBDC
Exhaust valve closes .....	18° ATDC

**Figure 4.2:** A comprehensive table detailing engine component specifications. This includes critical dimensions and clearances for components such as camshaft journals, pistons, gudgeon pins, connecting rods, cylinder head, and valves, providing essential data for engine overhaul and repair.

### 4.3. Tightening Sequences and Assembly

Correct tightening sequences and assembly procedures are vital to prevent warping and ensure proper sealing of engine components.

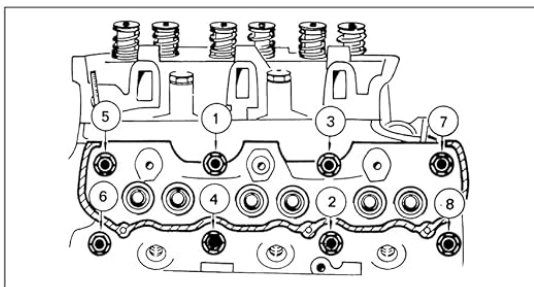


Fig. 1.28 Tightening sequence for cylinder head bolts (Sec 93)

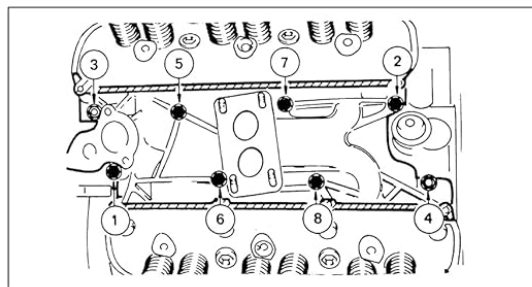


Fig. 1.29 Tightening sequence for inlet manifold bolts (Sec 93)

assemblies. Guide the rocker arm adjusting screws into the pushrod sockets (photos).

**8** Tighten the rocker shaft securing bolts progressively to the specified torque.

**9** Coat the gasket mating face outer edge of the cylinder heads and inlet manifold with sealing compound.

**10** Place a new inlet manifold gasket in position and fit the inlet manifold (photos).

**11** Insert the inlet manifold securing bolts and tighten them in the sequence shown in Fig. 1.29. Tighten them to the specified torque in four stages, refer to Specifications (carburettor engine models).

**12** Adjust the valve clearances as described in Section 94.

#### 94 Valve clearances - checking and adjustment

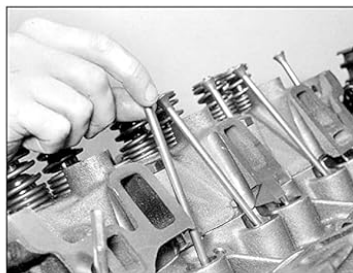
**1** Adjust the inlet and exhaust valve clearances when the engine is cold between 20° and 40°C (68° and 104°F). Clearances are important. If the clearance is too great the valves will not open as fully as they should. They will also open late and close early this will affect the engine performance. If the clearances are too small the valves may not close completely which could result in lack of compression and very soon, burnt out valves and valve seats.

**2** When turning the engine during valve clearance adjustments always turn the engine in the direction of normal rotation by means of a wrench on the pulley nut.

**3** Turn the engine and align the crankshaft pulley mark with the O-mark on the timing cover.

**4** If the crankshaft pulley is rotated backwards and forwards slightly, the valves of No. 1 or 5 cylinder will be seen to be rocking (the two rocker arms moving in opposite directions). If the valves of No. 1 cylinder are rocking, rotate the crankshaft through 360° so that those on No. 5 cylinder are rocking.

**5** When the valves of No. 5 cylinder are in this position, check the valve clearances of No. 1 cylinder by inserting a feeler gauge of the specified thickness between the rocker arm and the valve stem. Adjust the clearance, if necessary, by turning the rocker arm adjusting



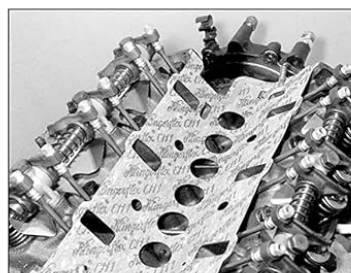
93.6 Insert the pushrods in the cylinder block



93.7a Fit the oil splash shields in position . .



93.7b . . . and then fit the rocker shaft assemblies



93.10a Place a new inlet manifold gasket in position . .

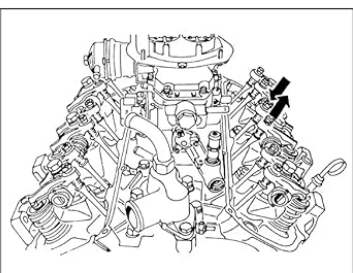
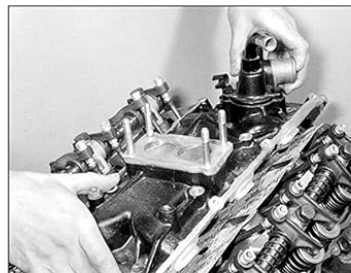


Fig. 1.30 No 5 cylinder valves rocking (Sec 94)



93.10b . . . and then fit the inlet manifold

**Figure 4.3:** Illustrations of engine assembly procedures. This image includes diagrams for the correct tightening sequences of cylinder head bolts and inlet manifold bolts. It also shows steps for inserting pushrods into the cylinder block, fitting oil splash shields, placing new inlet manifold gaskets, and assembling rocker shaft components.

## 5. VEHICLE SYSTEMS OVERVIEW

This manual provides detailed information on various vehicle systems, enabling comprehensive repair and maintenance.

### 5.1. Transmission

Covers both manual and automatic transmission systems, including removal, inspection, repair, and reinstallation procedures. This section also addresses propeller shaft and rear axle maintenance.

## 5.2. Brakes

Detailed instructions for the braking system, including component inspection, replacement of pads and shoes, fluid bleeding, and overall system maintenance to ensure safe operation.

## 5.3. Electrical System

Provides guidance on diagnosing and repairing electrical faults, including wiring diagrams, component testing, and general electrical system maintenance.

## 5.4. Suspension and Steering

Covers the front and rear suspension components, steering gear, and associated linkages. Includes procedures for inspection, repair, and adjustment to maintain vehicle handling and ride quality.

## 5.5. Body Equipment

Addresses the maintenance and repair of bodywork and fittings, including interior and exterior components, to preserve the vehicle's structural integrity and appearance.

# 6. FAULT FINDING AND TROUBLESHOOTING

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This manual includes a dedicated fault-finding section to help diagnose common problems. It provides systematic approaches to identify the root cause of issues, saving time and effort.

## 6.1. MOT Test Checks

A specific section is included to guide users through checks required for the Ministry of Transport (MOT) test, helping to ensure the vehicle meets legal safety and environmental standards.

- Checks carried out from the driver's seat.
- Checks carried out with the vehicle on the ground.
- Checks carried out with the vehicle raised.
- Checks carried out on your vehicle's exhaust emission system.

# 7. PRODUCT SPECIFICATIONS

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This section provides general information and specifications related to the Haynes Repair Manual itself.

**Publisher:** J H Haynes & Co Ltd

**Publication Date:** December 8, 2013

**Language:** English

**ISBN-10:** [0857337033](#)

**ISBN-13:** [978-0857337030](#)

**Item Weight:** 1.36 pounds

**Dimensions:** 8.27 x 0.59 x 10.63 inches

The manual covers Ford Granada models with petrol engines, including special/limited editions, 2.0 litre (1993cc), 2.3 litre (2293cc), and 2.8 litre (2792cc) V6 engines. For information on Diesel engines, refer to book no. 1606.

## 8. SUPPORT AND ADDITIONAL RESOURCES

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For further assistance or inquiries regarding this manual, please contact the publisher, Haynes. Additional resources, including supplements for later models and wiring diagrams, are also available.

**Publisher:** J H Haynes & Co Ltd

**Website:** [haynes.com](https://www.haynes.com) (Example link, actual link not provided in data)

Always refer to the latest edition of the manual and any official service bulletins for the most up-to-date information.