





Chapter 4 Part A:

Fuel and exhaust systems - carburettor

Contents

Air cleaner element - renewal	2	Carburettor (Weber 2V TLD type) - removal and refitting	22
Air cleaner inlet air temperature control - testing	4	Exhaust manifold - removal and refitting	26
Air cleaner - removal and refitting	3	Exhaust system - inspection, removal and refitting	27
Carburettors (all types) - dismantling and reassembly	13	Fuel level sender unit - removal and refitting	10
Carburettor (Ford VV type) - idle speed and mixture adjustment	15	Fuel pressure regulator (models up to 1985) - removal and refitting	5
Carburettor (Ford VV type) - removal and refitting	14	Fuel pump - removal and refitting	8
Carburettor (Pierburg 2V type) - fast idle speed adjustment	21	Fuel pump - testing	7
Carburettor (Pierburg 2V type) - idle speed and mixture adjustment	20	Fuel tank - removal and refitting	9
Carburettor (Pierburg 2V type) - removal and refitting	19	Fuel vapour separator (models from 1985) - removal and refitting	6
Carburettor (Weber 2V type) - fast idle speed adjustment	18	General information and precautions	1
Carburettor (Weber 2V type) - idle speed and mixture adjustment	17	Inlet manifold - removal and refitting	25
Carburettor (Weber 2V type) - removal and refitting	16	Throttle cable - removal, refitting and adjustment	12
Carburettor (Weber 2V TLD type) - fast idle speed adjustment	24	Throttle pedal - removal and refitting	11
Carburettor (Weber 2V TLD type) - idle speed and mixture adjustment	23	Vacuum valves, ported vacuum switches and fuel traps - removal and refitting	28

Degrees of difficulty

Easy , suitable for novice with little experience 	Fairly easy , suitable for beginner with some experience 	Fairly difficult , suitable for competent DIY mechanic 	Difficult , suitable for experienced DIY mechanic 	Very difficult , suitable for expert DIY or professional 
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Specifications

General

Fuel tank capacity:	
All models except P100	60.0 litres (13.2 gals)
P100 models	66.0 litres (14.5 gals)
Fuel octane rating:	
Leaded	97 RON (4-star)
Unleaded	95 RON (Premium)

Air filter element

1.3 litre and 1.6 litre (Ford carburettor)	Champion W110
1.6 litre (Weber carburettor) and 1.8 litre (SOHC engine)	Champion W118
1.6 litre (1984-on) and 2.0 litre (SOHC engine)	Champion W152
1.8 litre CVH engine	Champion W219
2.0 litre DOHC engine	Champion W152

Carburettor type:

1.3 litre models	Ford VV
1.6 litre models (engine codes LCS and LCT)	Ford VV
1.6 litre models (engine codes LSD and LSE)	Weber 2V (28/30 DFTH)
1.8 litre models	Pierburg 2V (2E3)
2.0 litre SOHC models up to 1985	Weber 2V (32/36 DGAV)
2.0 litre SOHC models from 1985 (except P100)	Weber 2V (30/34 DFTH)
P100 models	Ford VV
2.0 litre DOHC models	Weber 2V(TLD)

Ford VV carburettor

Idle speed:	
1.3 and 1.6 litre models	800 ± 25 rpm
P100 models	800 ± 50 rpm
Idle mixture (CO content):	
1.3 and 1.6 litre models	1.5 ± 0.5%
P100 models	1.0 ± 0.5%

4A•2 Fuel and exhaust systems - carburettor

Weber 2V (28/30 DFTH) carburettor

Idle speed	775 to 825 rpm	
Idle mixture (CO content)	0.75 to 1.25%	
Fast idle speed	1600 to 1800 rpm	
Float level (with gasket)	5.5 to 6.5 mm (0.22 to 0.26 in)	
Automatic choke vacuum pull-down	6.0 to 6.5 mm (0.24 to 0.26 in)	
	Primary	Secondary
Throttle barrel diameter	28.0 mm	30.0 mm
Venturi diameter	21.0 mm	23.0 mm
Idle jet	50	40 (70*)
Main jet	97 (95*)	110 (115*)
Air correction jet	185 (195*)	190 (170*)
Emulsion tube	F59	F22

*Re-jetting sizes for improved economy

Weber 2V (32/36 DGAV) carburettor

Idle speed	800 ± 25 rpm	
Idle mixture (CO content)	1.5 ± 0.2%	
Fast idle speed	2900 ± 100 rpm	
Float level (without gasket):		
Brass float	41.0 mm (1.61 in)	
Plastic float	35.3 mm (1.39 in)	
Automatic choke vacuum pull-down	6.5 ± 0.25 mm (0.26 ± 0.01 in)	
Automatic choke phasing dimension	1.5 ± 0.25 mm (0.06 ± 0.01 in)	
	Primary	Secondary
Throttle barrel diameter	32.0 mm	36.0 mm
Venturi diameter	26.0 mm	27.0 mm
Idle jet	45	45
Main jet:		
Manual gearbox	130	130
Automatic transmission	130	132
Air correction jet:		
Manual gearbox	165	120
Automatic transmission	170	120
Emulsion tube:		
Manual gearbox	F66	F66
Automatic transmission	F50	F66

Weber 2V (30/34 DFTH) carburettor (Part Nos 85HF 9510 CA and DA)

Idle speed	800 rpm (electronically controlled)	
Idle mixture (CO content)	0.75 to 1.25%	
Float level (with gasket)	7.5 to 8.5 mm (0.30 to 0.33 in)	
Automatic choke vacuum pull-down:		
Manual gearbox	9.0 mm (0.35 in)	
Automatic transmission	8.0 mm (0.32 in)	
Throttle barrel diameter	30.0 mm	34.0 mm
Venturi diameter	25.0 mm	27.0 mm
Idle jet	45	45
Main jet:		
Manual gearbox	112	135
Automatic transmission	110	135
Air correction jet:		
Manual gearbox	165	150
Automatic transmission	160	150
Emulsion tube	F22	F22

Weber 2V (30/34 DFTH) carburettor (Part Nos 85HF 9510 CB and DB)

Idle speed	875 rpm (electronically controlled)	
Idle mixture (CO content)	1.0 ± 0.25%	
Float level (with gasket)	8.0 ± 0.5 mm (0.32 ± 0.02 in)	
Automatic choke vacuum pull-down	6.0 mm (0.24 in)	
	Primary	Secondary
Throttle barrel diameter	30.0 mm	34.0 mm
Venturi diameter	25.0 mm	27.0 mm
Idle jet	42	45
Main jet	110	130
Air correction jet:		
Manual gearbox	160	160
Automatic transmission	170	160
Emulsion tube	F22	F22

Pierburg 2V (2E3) carburettor - SOHC models (Part No 85HF 9510 AB)

Idle speed	800 ± 20 rpm	
Idle mixture (CO content)	1.3%	
Fast idle speed	830 ± 30 rpm	
Automatic choke vacuum pull-down	3.0 mm (0.12 in)	
Idle fuel jet	45	
Idle air bleed	115	
	Primary	Secondary
Venturi diameter	23.0 mm	26.0 mm
Main jet	107.5	130

Pierburg 2V (2E3) carburettor - SOHC models (Part Nos 85HF 9510 JB and KC)

Idle speed:		
Manual gearbox	850 to 900 rpm	
Automatic transmission	775 to 825 rpm	
Idle mixture (CO content)	1.0 to 1.5%	
Fast idle speed	1850 to 1950 rpm	
Automatic choke vacuum pull-down:		
Manual gearbox	4.0 mm (0.16 in)	
Automatic transmission	3.7 mm (0.15 in)	
Idle fuel jet	45	
Idle air bleed:		
Manual gearbox	120	
Automatic transmission	115	
	Primary	Secondary
Venturi diameter	23.0 mm	26.0 mm
Main jet	102.5	130

Pierburg 2V (2E3) carburettor- CVH models

Idle speed:		
Manual gearbox	850 to 900 rpm	
Automatic transmission	775 to 825 rpm	
Idle mixture (CO content)	0.75 to 1.25%	
Fast idle speed	2000 rpm	
Automatic choke vacuum pull-down:		
Manual gearbox	2.3 mm (0.09 in)	
Automatic transmission	2.5 mm (0.10 in)	
Idle fuel jet	47.5	
Idle air bleed	135	
	Primary	Secondary
Venturi diameter	22.0 mm	23.0 mm
Main jet:		
Manual gearbox	100	105
Automatic transmission	97.5	105

Weber 2V (TLD) carburettor

Idle speed	850 ± 25 rpm	
Idle mixture (CO content)	1.0 ± 0.25%	
Fast idle speed	1800 ± 50 rpm	
Float level (with gasket)	29.0 ± 0.5 mm	
Automatic choke vacuum pull-down	5.0 ± 0.5 mm	
Throttle kicker speed (see text)	2000 ± 50 rpm	
	Primary	Secondary
Venturi diameter	23.0 mm	25.0 mm
Main jet	115	157
Air correction jet	175	145
Emulsion tube	F114	F3

Torque wrench settings

	Nm	lbf ft
All models except 2.0 litre DOHC		
Fuel pump bolts (mechanical pump)	14 to 18	10 to 13
Inlet manifold	16 to 20	12 to 15
Exhaust manifold	35 to 40	26 to 30
Exhaust manifold-to-downpipe nuts	35 to 40	26 to 30
Exhaust downpipe-to-main system nuts	35 to 40	26 to 30
Exhaust U-bolt clamp nuts	38 to 45	28 to 33

2.0 litre DOHC models

Inlet manifold nuts and bolts	20 to 24	15 to 18
Exhaust manifold nuts	21 to 25	15 to 18
Carburettor bolts	8 to 10	6 to 7

1 General information and precautions

General information

The fuel system on carburettor models may comprise a fuel tank, a fuel pump, a fuel pressure regulator and/or vapour separator, a downdraught carburettor and a thermostatically-controlled air cleaner.

On Saloon, Hatchback and Estate models, the fuel tank is mounted under the rear of the vehicle, on the right-hand side. On P100 models, the fuel tank is mounted behind the cab, between the chassis frame and the load area. The tank is ventilated, and has a simple filler pipe and a fuel gauge sender unit.

The mechanical fuel pump is a diaphragm type, actuated by a pushrod bearing on an eccentric cam on the auxiliary shaft on SOHC models, or on the camshaft on CVH models. DOHC models and models with air conditioning have an electric fuel pump mounted under the rear of the vehicle, next to the fuel tank. DOHC models have a combined pump and fuel level sender unit.

The fuel pressure regulator and/or vapour separator is used to stabilise the fuel supply to the carburettor. The pressure regulator provides a constant fuel pressure, and hence maintains a constant float level in the carburettor which reduces exhaust emission levels. The vapour separator purges vapour from the carburettor fuel supply, thus improving hot starting qualities. All models up to 1985 are fitted with a fuel pressure regulator. All models from 1985 except 2.0 litre SOHC models and CVH models are fitted with a combined fuel pressure regulator/vapour separator. 2.0 litre models from 1985 and CVH models are fitted with a vapour separator only. DOHC models have no pressure regulator or vapour separator fitted.

The carburettor may be either a Ford variable venturi (VV) type, a Weber twin venturi (2V or 2V TLD) type, or a Pierburg twin venturi (2V) type, depending on model. Each type of

carburettor is available in several versions to suit particular engine and equipment combinations.

The air cleaner has a vacuum or waxstat controlled air inlet supplying a blend of hot and cold air to suit the prevailing engine operating conditions.

Precautions



Warning - Fuel - Many of the procedures given in this Chapter involve the disconnection of fuel pipes and system components which may result in some fuel spillage. Before carrying out any operation on the fuel system, refer to the precautions given in the "Safety first" Section at the beginning of this manual and follow them implicitly. Petrol is a highly dangerous and volatile substance, and the precautions necessary when handling it cannot be over stressed.

Tamperproof adjustment screws - caution

Certain adjustment points in the fuel system (and elsewhere) are protected by "tamperproof" caps, plugs or seals. The purpose of such tamperproofing is to discourage, and to detent, adjustment by unqualified operators.

In some EEC countries (though not yet in the UK) it is an offence to drive a vehicle with missing or broken tamperproof seals. Before disturbing a tamperproof seal, satisfy yourself that you will not be breaking local or national anti-pollution regulations by doing so. Fit a new seal when adjustment is complete when this is required by law.

Do not break tamperproof seals on a vehicle which is still under warranty.

Work procedures

When working on fuel system components, scrupulous cleanliness must be observed, and care must be taken not to introduce any foreign matter into fuel lines or components. Carburettors in particular are delicate

instruments, and care should be taken not to disturb any components unnecessarily. Before attempting work on a carburettor, ensure that the relevant spares are available. Full overhaul procedures for carburettors have not been given in this Chapter, as complete strip-down of a carburettor is unlikely to cure a fault which is not immediately obvious, without introducing new problems. If persistent problems are encountered, it is recommended that the advice of a Ford dealer or carburettor specialist is sought. Most dealers will be able to provide carburettor re-jetting and servicing facilities, and if necessary it should be possible to purchase a reconditioned carburettor of the relevant type.

2 Air cleaner element - renewal

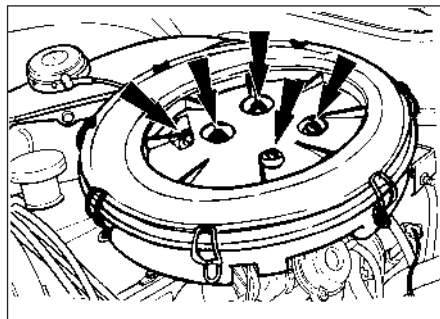
Refer to Chapter 1, Section 38.

3 Air cleaner - removal and refitting



Removal

- 1 On CVH models, disconnect the battery negative lead.
- 2 Remove the screws from the top of the air cleaner cover (**see illustration**).
- 3 Disconnect the cold air inlet hose from the air cleaner spout or the inlet on the front body panel. The hose is secured by toggle clips (**see illustration**).
- 4 Disconnect the hot air inlet hose from the air cleaner spout or the hot air shroud on the exhaust manifold (**see illustration**).
- 5 Disconnect the vacuum hose from the inlet manifold (**see illustration**).
- 6 On DOHC models, disconnect the camshaft cover breather hose
- 7 Where applicable, on OHC models remove the screw securing the air cleaner body to the camshaft cover.
- 8 Withdraw the air cleaner, and on CVH models, disconnect the wiring plug from the



3.2 Air cleaner securing screws (arrowed)



3.3 Disconnecting the cold air intake hose from the air cleaner spout



3.4 Hot air intake hose on hot air shroud

air charge temperature sensor mounted in the base of the air cleaner body, and disconnect the breather hose from the camshaft cover.

Refitting

9 Refitting is a reversal of removal, ensuring that the disturbed hoses are securely connected.

4 Air cleaner inlet air temperature control - testing

Refer to Chapter 1, Section 36.

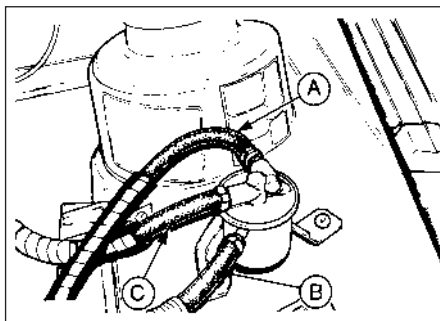
5 Fuel pressure regulator (models up to 1985) - removal and refitting



Caution: Refer to the precautions in Section 1 before proceeding.

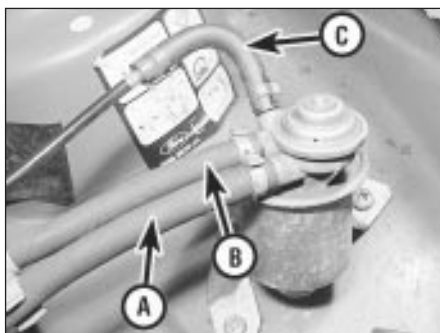
Removal

1 The fuel pressure regulator is located on the left-hand side of the engine compartment (see illustration).



6.1a Fuel vapour separator location - 2.0 litre SOHC models from 1985

- A Fuel return hose
- B Fuel supply hose
- C Carburettor fuel feed hose



6.1b Fuel pressure regulator/vapour separator location - SOHC models from 1985

- A Fuel supply hose
- B Carburettor fuel feed hose
- C Fuel return hose



3.5 Disconnecting the air cleaner vacuum hose from the inlet manifold

- 2 Disconnect the battery negative lead.
- 3 Identify the fuel hose locations, as an aid to refitting. Note that there are three hose connections on models without a fuel flow sensor unit, and two hose connections on models with a fuel flow sensor unit.
- 4 Disconnect and plug the fuel hoses.
- 5 Remove the two securing screws and withdraw the regulator.

Refitting

6 Refitting is a reversal of removal, ensuring that the fuel hoses are correctly connected. If the hoses were originally secured with crimped type clips, discard them and use new worm drive clips.

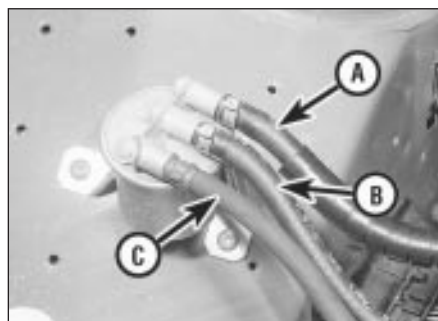
6 Fuel vapour separator (models from 1985) - removal and refitting



Caution: Refer to the precautions in Section 1 before proceeding.

Removal

- 1 On SOHC models, the vapour separator is located on the left-hand side of the engine compartment. On CVH models, the vapour separator is located on the right-hand side of the engine compartment (see illustrations).
- 2 Disconnect the battery negative lead.



6.1c Fuel vapour separator location - CVH models

- A Fuel supply hose
- B Carburettor fuel feed hose
- C Fuel return hose



5.1 Fuel pressure regulator location - models up to 1985

- 3 Identify the fuel hose locations as an aid to refitting, then disconnect and plug the hoses.
- 4 Remove the two securing screws and withdraw the vapour separator.

Refitting

5 Refitting is a reversal of removal, ensuring that the fuel hoses are correctly connected. If the hoses were originally secured with crimped type clips, discard them and use new worm drive clips.

7 Fuel pump - testing



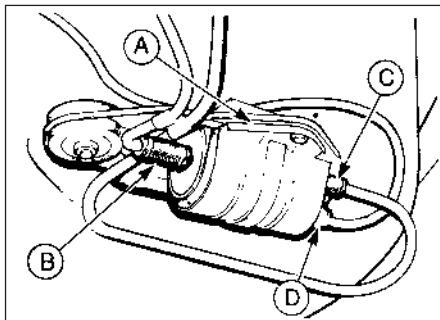
Caution: Refer to the precautions in Section 1 before proceeding.

Mechanical pump

- 1 On SOHC engines, the fuel pump is located on the left-hand side of the cylinder block, next to the oil filter. On CVH engines the fuel pump is located on the rear right-hand corner of the cylinder head.
- 2 To test the pump, disconnect the ignition coil LT "-/1" lead to prevent the engine from firing.
- 3 Disconnect the outlet hose from the pump, and place a wad of rag next to the pump outlet (see illustration). Take appropriate fire precautions.
- 4 Have an assistant crank the engine on the starter motor, and check that well-defined spurts of petrol are ejected from the fuel pump outlet. If not, the pump is faulty. Dispose of the petrol-soaked rag safely.



7.3 Disconnecting outlet hose from fuel pump - SOHC model



7.7 Electric fuel pump - SOHC and CVH models with air conditioning

A Clamping bracket C Fuel outlet
B Fuel inlet D Wiring plug

5 On some early pumps, the top cover can be removed for access to the filter. Removing the pump and cleaning the filter may cure the problem. On models with a sealed pump, or where cleaning the interior of the pump and filter does not solve the problem, the pump should be renewed, as no spares are available. Check that there is petrol in the fuel tank before condemning the pump!

6 On completion of the test, reconnect the outlet hose to the pump. If the hose was originally secured with a crimped type clip, discard this and use a new worm drive clip. Reconnect the coil LT lead.

Electric pump

SOHC and CVH models with air conditioning

7 The fuel pump is located under the rear of the vehicle, next to the fuel tank (see illustration).

8 If the pump is functioning, it should be possible to hear it "buzzing" by listening under the rear of the vehicle when the ignition is switched on.

9 If the pump appears to have failed completely, check the fuse and relay.

10 To test the pump, disconnect the fuel supply hose from the pressure regulator or vapour separator (as applicable) in the engine compartment. Lead the hose into a measuring cylinder.

11 Take appropriate fire precautions, then switch on the ignition for 30 seconds (do not

start the engine), and measure the quantity of petrol delivered: it should be at least 400 ml (0.7 pint). If not, the pump is faulty and should be renewed, as no spares are available.

12 On completion of the test, reconnect the hose to the pressure regulator or vapour separator, as applicable, and if the hose was originally secured with a crimped type clip, discard this and fit a new worm drive clip.

2.0 litre DOHC models

13 If the fuel pump is functioning, it should be possible to hear it "buzzing" by listening under the rear of the vehicle when the ignition is switched on. Unless the engine is started, the fuel pump should switch off after approximately one second.

14 If the pump appears to have failed completely, check the appropriate fuse and relay, and where applicable check the state of the fuel pump inertia cut-off switch as follows.

15 The inertia cut-off switch is located in the spare wheel well. The switch incorporates a reset button, which should normally be in the depressed position. Check the position of the reset button before assuming that a fault exists in the fuel pump.

16 To test the fuel pump, special equipment is required, and it is recommended that any suspected faults are referred to a Ford dealer.

8 Fuel pump - removal and refitting



Caution: Refer to the precautions in Section 1 before proceeding.

Mechanical pump

Note: A new gasket must be used when refitting the pump.

1 Disconnect the battery negative lead.

2 For improved access on CVH models, remove the air cleaner.

3 Identify the hose locations as an aid to refitting, then disconnect the hoses from the pump and plug them.

4 Remove the two securing bolts and withdraw the pump from the cylinder block or cylinder head, as applicable (see illustration).

5 Recover the gasket, and if desired remove the operating pushrod (see illustration).

6 Clean the exterior of the pump with paraffin and wipe dry. Clean all traces of gasket from the pump flange and the cylinder block or cylinder head, as applicable.

7 On early pumps with a removable top cover, remove the securing screw and withdraw the cover and the nylon mesh filter with seal (see illustration). Clean the filter, the cover and the pump with petrol. Locate the filter in the cover and fit the cover to the pump, so that the indentations on the cover and pump are aligned. Tighten the cover securing screw.

8 Refitting is a reversal of removal, but fit a new gasket, and tighten the securing bolts to the specified torque. Ensure that the hoses are correctly connected, and if the hoses were originally secured with crimped type clips, discard these and use new worm drive clips.

Electric pump

SOHC and CVH models with air conditioning

9 Disconnect the battery negative lead.

10 Chock the front wheels, then jack up the rear of the vehicle and support on axle stands. (see "Jacking and Vehicle Support").

11 Clean the area around the pump mounting, and position a suitable container under the pump.

12 Using a hose clamping tool or self-locking pliers, clamp the fuel tank-to pump hose to prevent excessive petrol spillage, or alternatively make arrangements to collect the contents of the fuel tank which will otherwise be released. Disconnect the hose from the pump.

13 Disconnect the fuel outlet hose from the pump and plug the hose to prevent petrol spillage.



Caution: Petrol under pressure may spray out of the outlet as the hose is disconnected.

14 Disconnect the wiring plug from the pump.

15 Slacken the clamping bolt, and slide the pump from the bracket assembly.

16 Refitting is a reversal of removal, but make sure that the rubber sleeve is correctly located around the pump body in the bracket, and ensure that the fuel hoses are securely



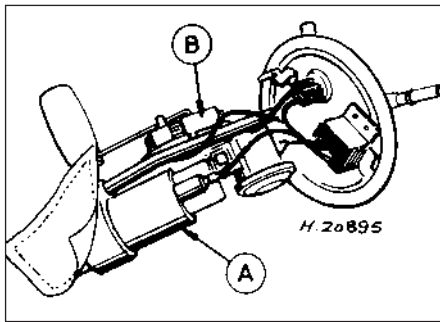
8.4 Withdrawing the fuel pump from the cylinder head - CVH model



8.5 Withdrawing the fuel pump operating pushrod - CVH model



8.7 Removing the top cover from an early type fuel pump for access to the mesh filter



8.17 Combined fuel pump/fuel level sender unit - 1.6/1.8 litre (R6A) CVH models

A Fuel pump B Fuel level sender unit

connected. If the hoses were originally secured with crimped type clips, discard these and use new worm drive clips.

2.0 litre DOHC models

17 On these models the fuel pump is mounted in the fuel tank, on the same mounting as the fuel level sender unit (see illustration).

18 To remove the pump, first remove the fuel tank.

19 Unscrew the fuel pump/fuel level sender unit by engaging two crossed screwdrivers in the slots on either side of the unit mounting flange. Recover the seal.

20 Refitting is a reversal of removal. It is necessary to fit a new seal.

9 Fuel tank - removal and refitting



Caution: Refer to the precautions in Section 1 before proceeding.

1 Run the fuel level as low as possible before removing the tank.

2 Disconnect the battery negative lead.

3 Remove the tank filler cap, then syphon or pump out the tank contents (there is no drain plug). It may be necessary to disconnect the fuel tank-to-fuel pump hose in order to fully drain the tank. Store the petrol in a suitable sealed container.

Saloon, Hatchback and Estate models

4 Working in the fuel filler recess, remove the two screws on models up to 1987, or the single screw on models from 1987, securing the upper end of the fuel filler pipe to the body panel.

5 Chock the front wheels, then jack up the rear of the vehicle and support on axle stands (see "Jacking and Vehicle Support").

6 Unscrew the two securing bolts from the left-hand tank flange, and on models from 1987, the single bolt from the right-hand tank flange.

7 Support the tank, then remove the bolt from the securing strap. Unhook the remaining end of the strap from the underbody.

8 Lower the tank sufficiently to disconnect the two wiring plugs from the fuel level sender (pump) unit (see illustration).

9 Identify the fuel hose locations for use when refitting, then disconnect the hoses from the sender unit and plug them.

10 Withdraw the fuel tank from under the vehicle.

11 The fuel filler and ventilation pipes can be removed from the tank by loosening the securing clips.

12 If the tank is contaminated with sediment or water, swill it out with clean petrol. If the tank has a leak, or is damaged, it should be repaired by a specialist, or alternatively renewed. Do not under any circumstances attempt to solder or weld a fuel tank.

13 Refitting is a reversal of removal, but ensure that the ventilation pipe is correctly positioned in its groove in the tank, and is not trapped between the tank and the vehicle underbody. Ensure that the fuel hoses and the fuel filler and ventilation pipes are correctly connected, and if the hoses or pipes were originally secured with crimped type clips, discard these and use new worm drive clips.

P100 models

14 Remove the cargo area (Chapter 12).

15 Disconnect the wiring plug from the fuel level sender unit, and release the wiring from the clip on the fuel tank flange.

16 Identify the fuel hose locations for use when refitting, then disconnect the hoses from the sender unit and plug them.

17 Detach the fuel pipes from their clips on the tank.

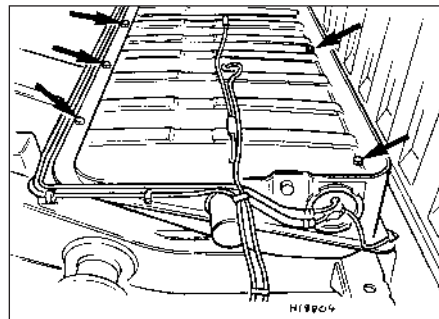
18 Remove the five tank securing bolts, and lift the tank from the chassis frame (see illustration).

19 Proceed as described in paragraphs 11 and 12.

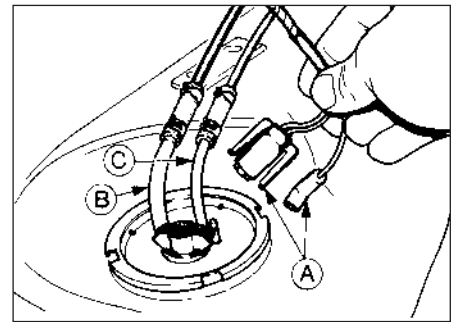
20 Commence refitting by loosening the bolts securing the front tank mounting brackets to the chassis frame.

21 Lower the tank into position and loosely refit the securing bolts. Tighten the three rear securing bolts.

22 Pull down on the front of the tank and tighten the bolts securing the front tank mounting brackets to the chassis frame when



9.18 Fuel tank securing bolts (arrowed) - P100 models



9.8 Fuel level sender unit connections - Saloon, Hatchback and Estate models

A Wiring plugs B Fuel outlet pipe C Fuel inlet pipe

the brackets contact the insulating pads, then tighten the front tank securing bolts.

23 Further refitting is a reversal of removal, but ensure that all hoses and pipes are correctly connected, and if the hoses or pipes were originally secured with crimped type clips, discard these and use new worm drive clips. Refit the cargo area.

10 Fuel level sender unit - removal and refitting



Caution: Refer to the precautions in Section 1 before proceeding. A new seal must be used when refitting the sender unit.

Saloon, Hatchback and Estate models

All models except 2.0 litre DOHC

1 Remove the fuel tank.

2 Unscrew the sender unit from the tank by engaging two crossed screwdrivers in the slots on either side of the sender unit mounting flange. Recover the seal. Check the condition of the gauze filter on the fuel pick-up pipe, and renew it if there is any sign of deterioration.

3 Refitting is a reversal of removal, but fit a new seal.

2.0 litre DOHC models

4 On these models the sender unit is combined with the fuel pump. See Section 8 for unit removal and refitting.

P100 models

5 Remove the cargo area (Chapter 12).

6 Disconnect the wiring plug from the sender unit.

7 Identify the fuel hose locations, as an aid to refitting, then disconnect the hoses from the sender unit and plug them.

8 Proceed as described in paragraph 2.

9 Refitting is a reversal of removal, but fit a new seal, and ensure that the fuel hoses are correctly connected. If the hoses were originally secured with crimped type clips, discard these and use new worm drive clips. Refit the cargo area.

11 Throttle pedal - removal and refitting



Removal

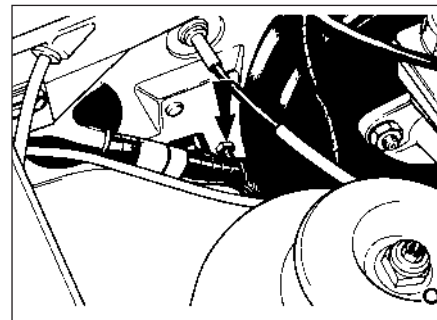
- 1 Disconnect the battery negative lead.
- 2 Remove the lower facia panel from the driver's side.
- 3 Prise off the securing clip and disconnect the end of the throttle cable from the top of the pedal (see illustration).
- 4 Remove the two securing nuts, one accessible from the driver's footwell, the other from the engine compartment, and withdraw the pedal and bracket assembly (see illustration).

Refitting

- 5 Refitting is a reversal of removal, but on completion check the throttle cable adjustment.



11.3 Throttle pedal assembly - cable connection arrowed



11.4 Throttle pedal securing nut (arrowed) in engine compartment

12 Throttle cable - removal, refitting and adjustment



Removal

- 1 Disconnect the battery negative lead.
- 2 Working inside the vehicle, remove the lower facia panel from the driver's side.
- 3 Prise off the securing clip and disconnect the end of the throttle cable from the top of the pedal.
- 4 Working in the engine compartment, free the cable sheath from the bulkhead, and pull the cable through into the engine compartment. It will probably be necessary to pull the cable grommet from the bulkhead in order to free the cable sheath.
- 5 For improved access, remove the air cleaner.
- 6 Disconnect the cable end from the throttle linkage. The cable end may be attached to the linkage with a balljoint and spring clip, a spring clip only, or the cable end may simply

locate in a slot in the throttle lever (see illustration).

- 7 Prise off the spring clip securing the cable sheath to the cable bracket at the carburettor inlet manifold. Depress the four lugs on the plastic cable retainer simultaneously so that the retainer can be slid from the bracket, or remove the retainer securing clip, as applicable (see illustration). Take care not to damage the cable sheath.

Refitting

- 8 Refitting is a reversal of removal, but before refitting the air cleaner, adjust the cable as follows.

Adjustment

- 9 Have an assistant fully depress the throttle pedal and hold it in this position. On models with automatic transmission, where applicable ensure that the kickdown cable does not restrict the pedal movement. Turn the adjusting sleeve at the carburettor inlet manifold cable bracket until the throttle is just fully open. Have the assistant release and then fully depress the throttle pedal, and check that the throttle is again fully open. Adjust if necessary, then refit the air cleaner. On models with automatic transmission, where applicable check the operation of the kickdown cable, and adjust if necessary.

13 Carburettors (all types) - dismantling and reassembly



- 1 A complete strip-down of a carburettor is unlikely to cure a fault which is not immediately obvious without introducing new problems. If persistent carburation problems are encountered, it is recommended that the advice of a Ford dealer or carburettor specialist is sought.

- 2 If it is decided to go ahead and service a carburettor, check the cost and availability of spare parts before commencement. Obtain a carburettor repair kit, which will contain the necessary gaskets, diaphragms and other renewable items.

- 3 When working on carburettors, scrupulous cleanliness must be observed and care must be taken not to introduce any foreign matter into components. Carburettors are delicate instruments and care should be taken not to disturb any components unnecessarily.

- 4 Referring to the relevant exploded view of the carburettor (see illustrations), remove each component part whilst making a note of its fitted position. Make alignment marks on linkages etc.

- 5 Reassemble the carburettor in the reverse order to dismantling, using new gaskets, O-rings etc. Be careful not to kink any diaphragms.



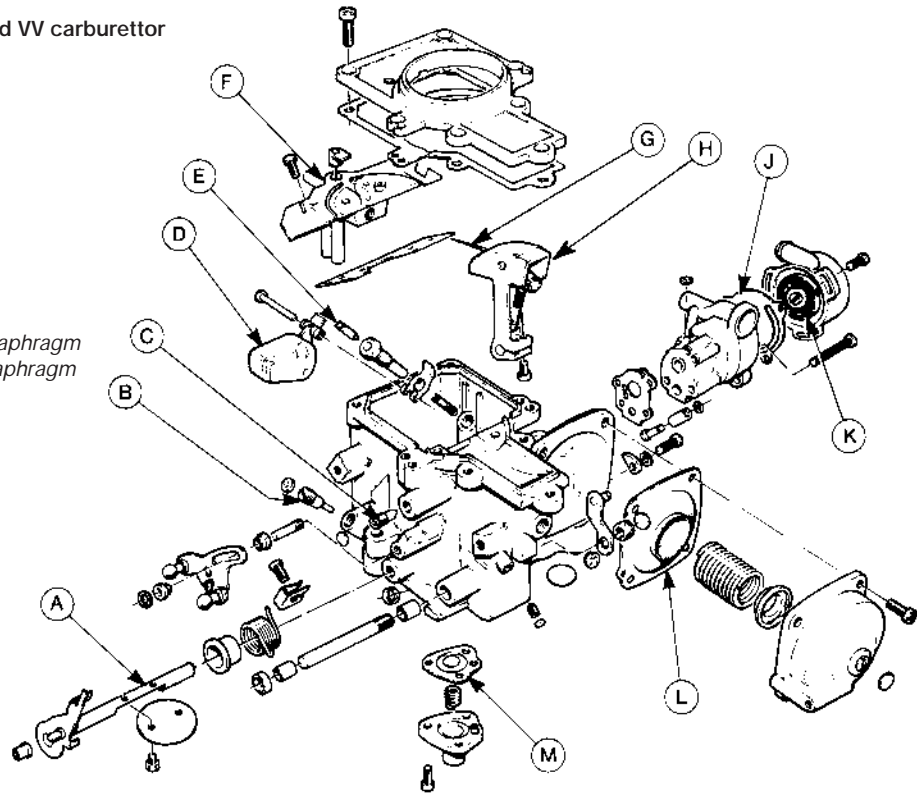
12.6 Disconnecting the throttle cable end from the throttle lever - Weber 2V carburettor



12.7 Removing the throttle cable sheath retainer securing clip - CVH model

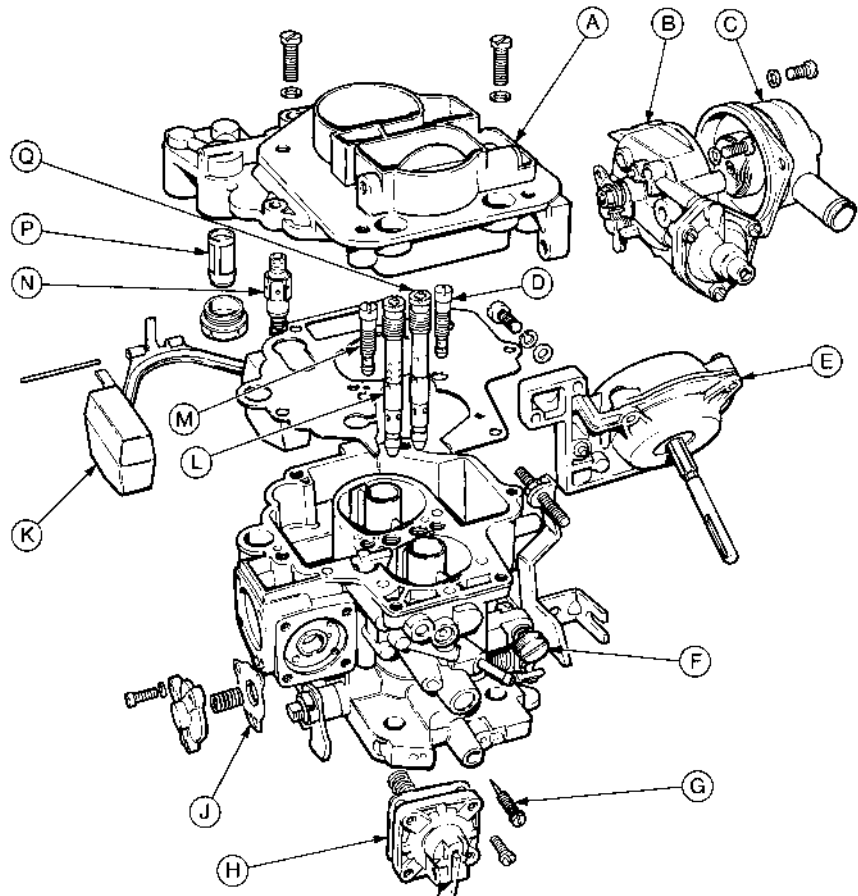
13.4a Exploded view of Ford VV carburettor

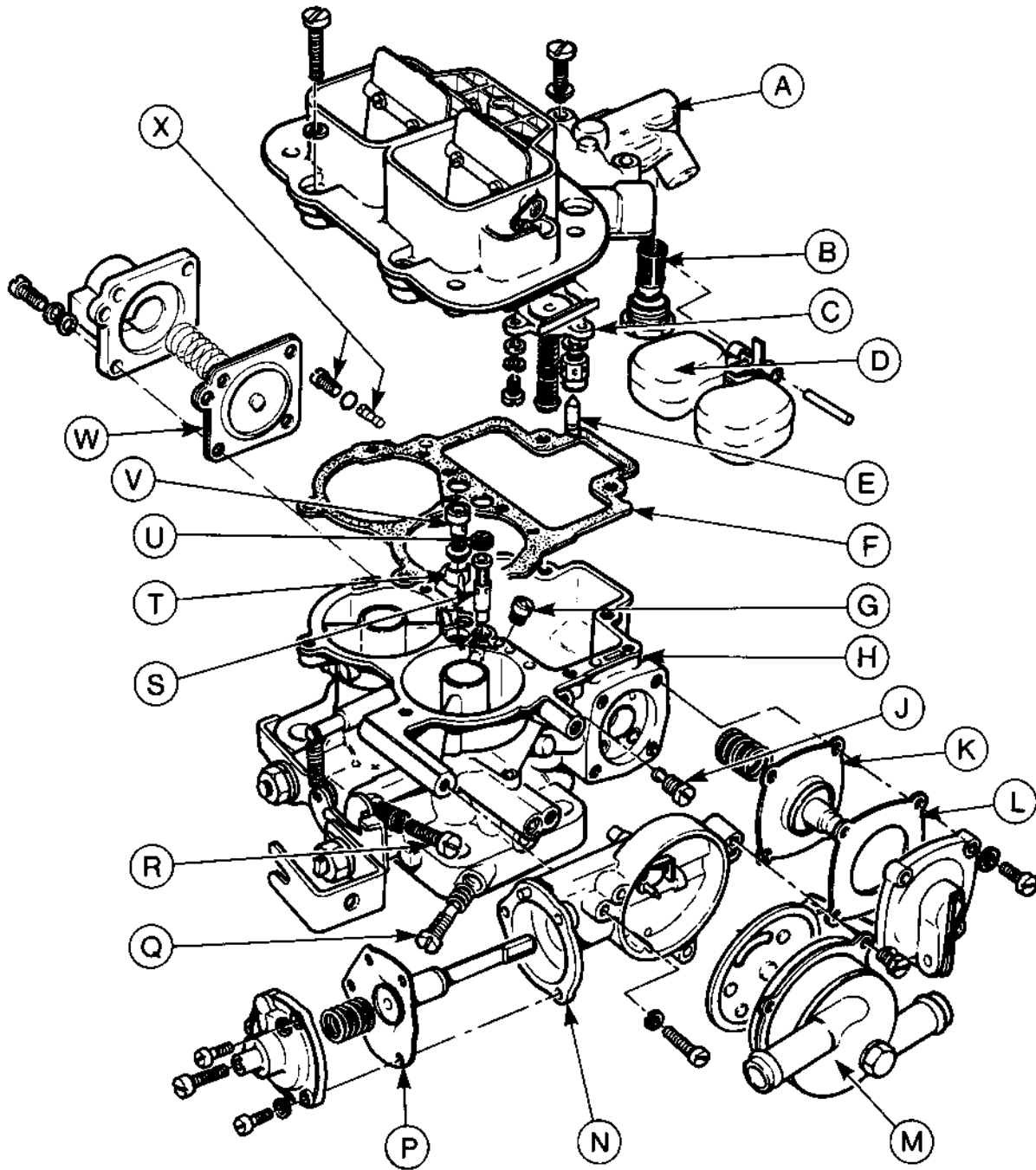
- A Throttle spindle
- B Mixture screw
- C By-pass leak adjuster
- D Float
- E Needle valve
- F Main jet body
- G Metering rod
- H Air valve
- J Automatic choke unit
- K Bi-metal coil
- L Carburettor control diaphragm
- M Accelerator pump diaphragm



13.4b Exploded view of Weber 2V carburettor - 1.6 models

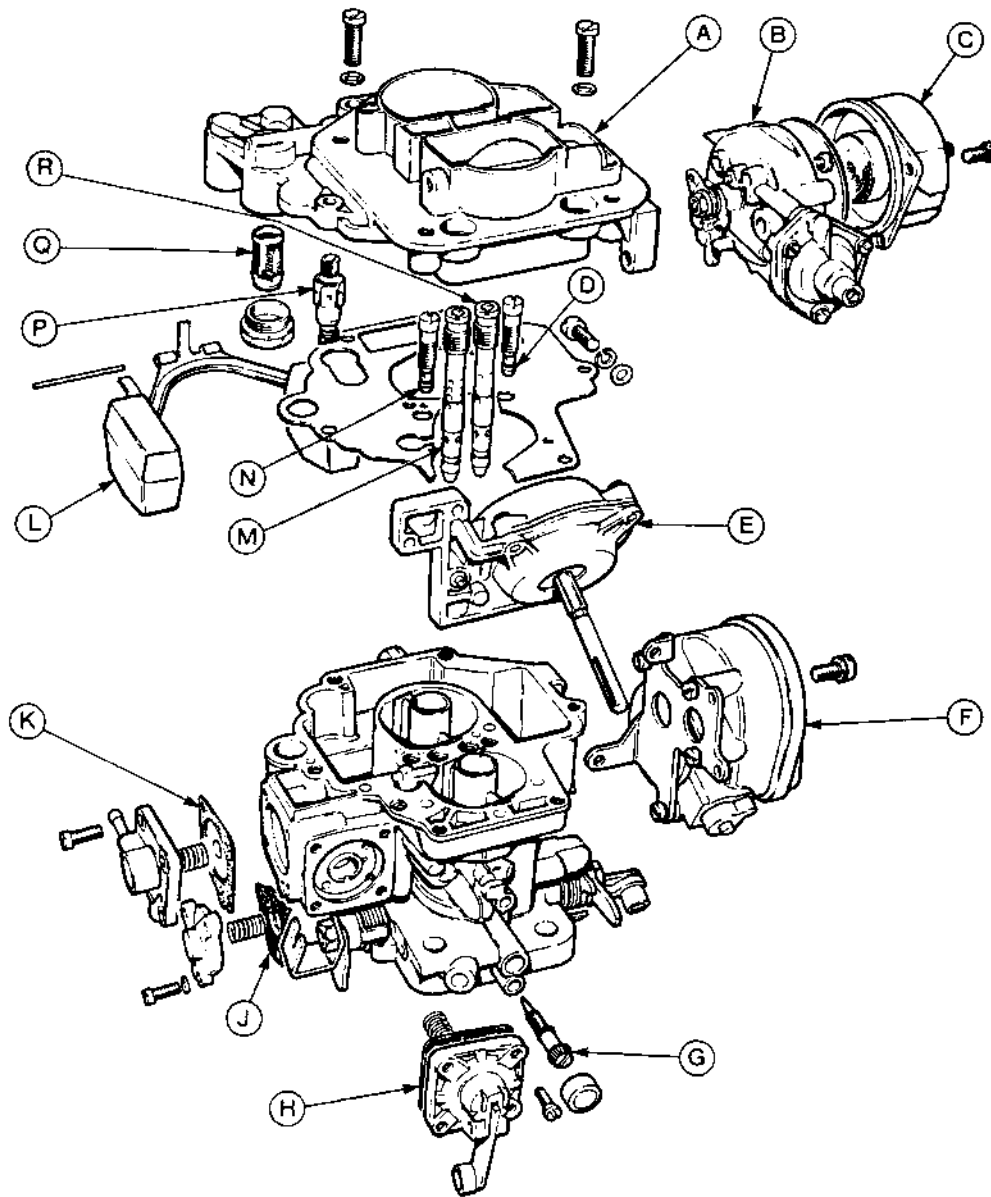
- A Top cover assembly
- B Automatic choke assembly
- C Automatic choke bi-metal housing assembly
- D Secondary idle jet
- E Secondary throttle valve vacuum unit
- F Idle speed screw
- G Idle mixture screw
- H Accelerator pump assembly
- J Power valve diaphragm
- K Float
- L Primary emulsion tube
- M Primary idle jet
- N Needle valve
- P Fuel filter
- Q Secondary emulsion tube





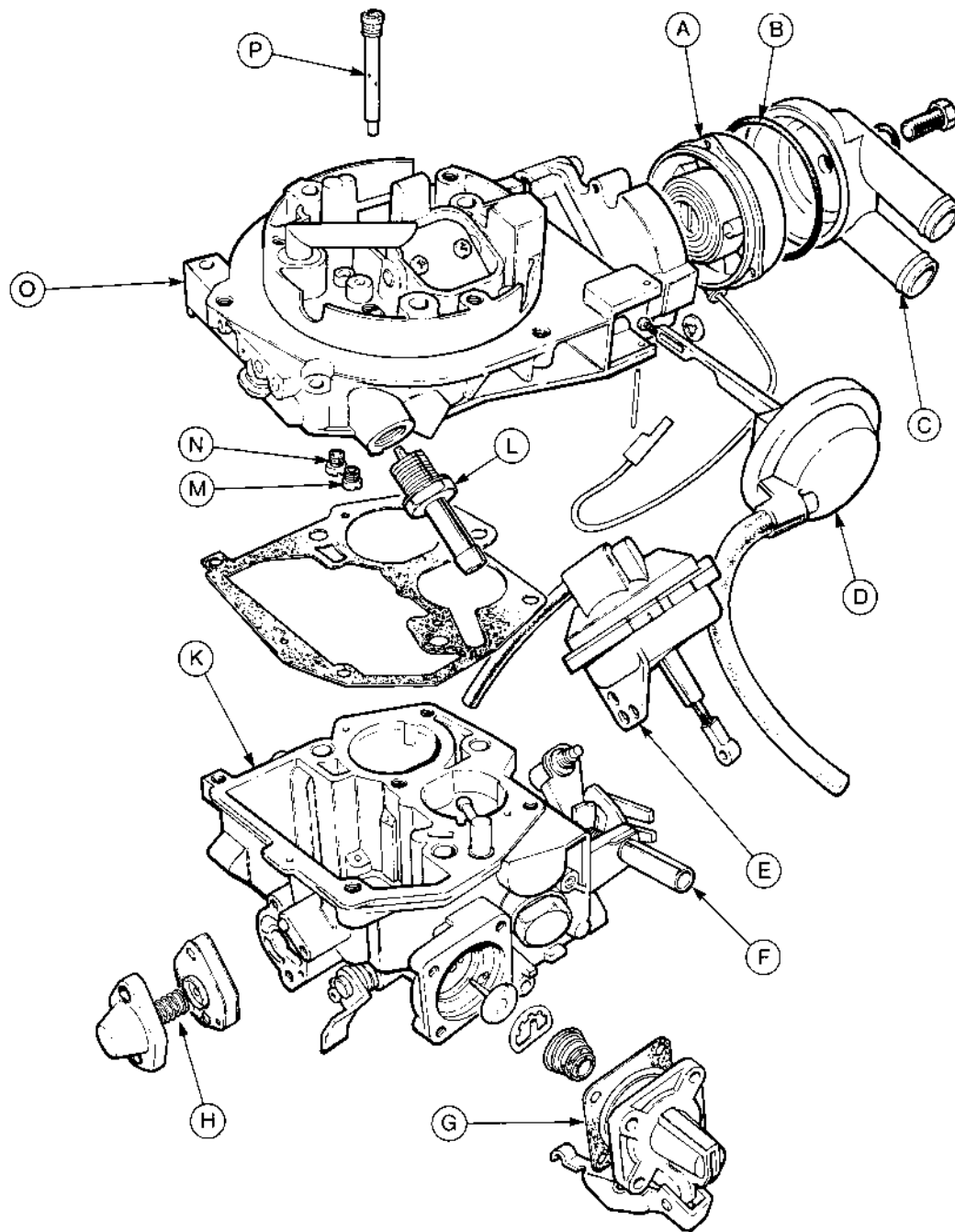
13.4c Exploded view of Weber 2V carburettor - 2.0 litre models up to 1985

- | | | |
|-----------------------------|---|---|
| A Top cover assembly | K Accelerator pump diaphragm | S Emulsion tube |
| B Fuel filter | L Accelerator pump gasket | T Accelerator pump jet |
| C Power valve assembly | M Automatic choke bi-metal housing assembly | U Air correction jet |
| D Float | N Automatic choke assembly | V Accelerator pump outlet check ball valve assembly |
| E Needle Valve | P Vacuum pull-down diaphragm assembly | W Low vacuum enrichment diaphragm |
| F Gasket | Q Idle mixture screw | X Secondary idle jet and holder |
| G Main jet | R Idle speed screw | |
| H Main body assembly | | |
| J Primary idle jet assembly | | |



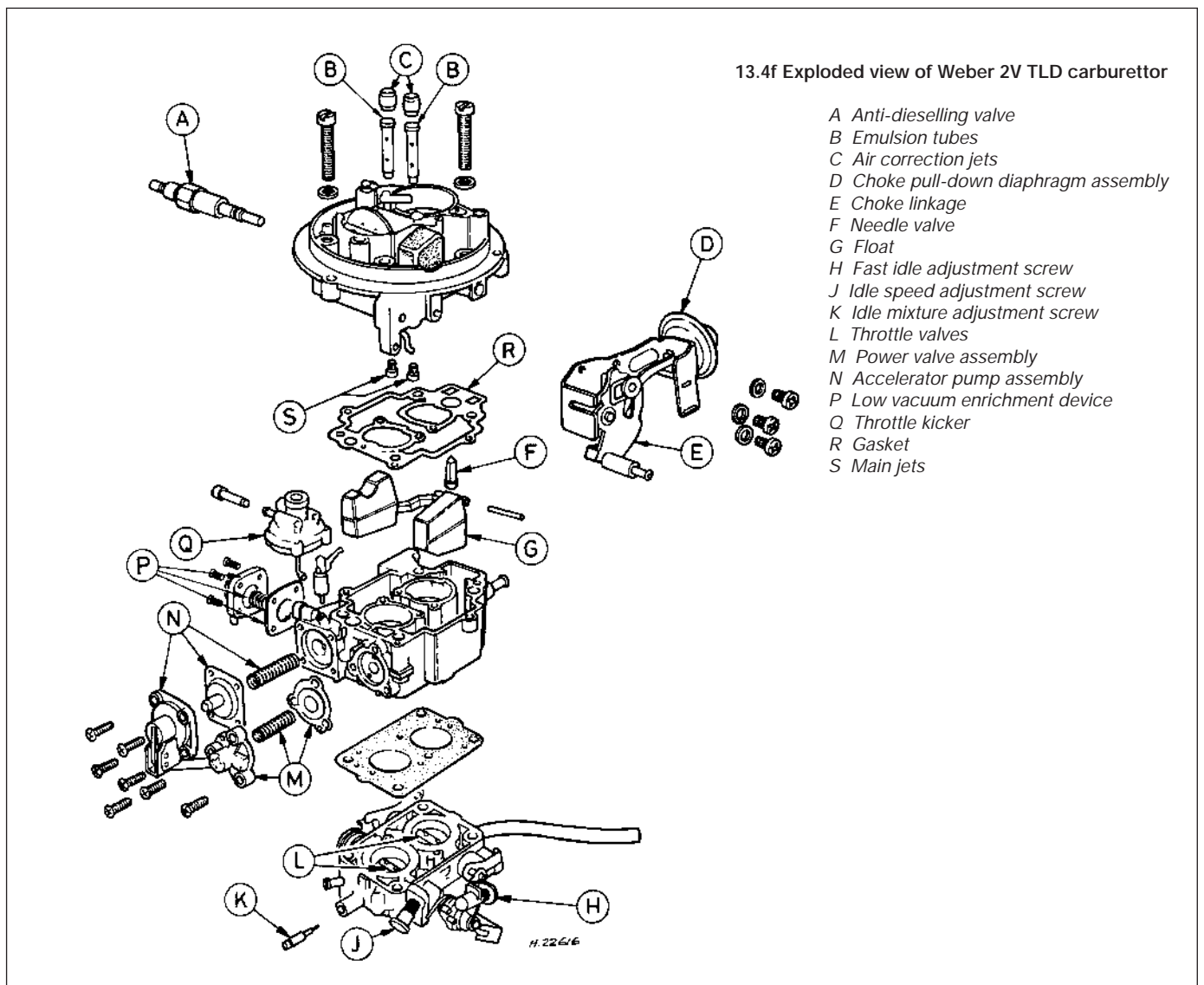
13.4d Exploded view of Weber 2V carburettor - 2.0 litre models from 1985

- | | | |
|--|-----------------------------------|---------------------------|
| A Top cover assembly | G Idle mixture screw | M Primary emulsion tube |
| B Automatic choke assembly | H Accelerator pump assembly | N Primary idle jet |
| C Automatic choke bi-metal housing | J Power valve diaphragm | P Needle valve |
| D Secondary idle jet | K Low vacuum enrichment diaphragm | Q Fuel filter |
| E Secondary throttle valve vacuum unit | L Float | R Secondary emulsion tube |
| F Stepper motor | | |



13.4e Exploded view of Pierburg 2V carburettor

- | | | |
|---|--|------------------------------|
| A Automatic choke bi-metal housing | E Secondary throttle valve vacuum unit | L Fuel inlet pipe and filter |
| B O-ring | F Idle speed screw | M Primary main jet |
| C Automatic choke coolant housing | G Accelerator pump diaphragm | N Secondary main jet |
| D Automatic choke vacuum pull-down unit | H Power valve assembly | O Top cover assembly |
| | K Carburettor body | P Idle jet |



13.4f Exploded view of Weber 2V TLD carburettor

- A Anti-dieselling valve
- B Emulsion tubes
- C Air correction jets
- D Choke pull-down diaphragm assembly
- E Choke linkage
- F Needle valve
- G Float
- H Fast idle adjustment screw
- J Idle speed adjustment screw
- K Idle mixture adjustment screw
- L Throttle valves
- M Power valve assembly
- N Accelerator pump assembly
- P Low vacuum enrichment device
- Q Throttle kicker
- R Gasket
- S Main jets

14 Carburettor (Ford VV type) - removal and refitting

Caution: Refer to the precautions in Section 1 before proceeding.

Note: A new gasket must be used when refitting the carburettor. A tachometer and an exhaust gas analyser will be required to check the idle speed and mixture on completion.

Removal

- 1 Disconnect the battery negative lead.
- 2 Remove the air cleaner.
- 3 Relieve the pressure in the cooling system by unscrewing the expansion tank cap. If the engine is warm, place a thick rag over the cap and unscrew the cap slowly as a precaution against scalding. Refit the cap after relieving the pressure.

- 4 Identify the automatic choke coolant hose locations, as an aid to refitting, then disconnect the hoses (being prepared for coolant spillage.) Either plug the hoses or secure them with their ends facing upwards to prevent loss of coolant.
- 5 Disconnect the wiring from the anti-

- dieselling (anti-run-on) valve.
- 6 Disconnect the fuel hose and vacuum pipe (see illustration). Plug the end of the fuel hose to minimise petrol spillage.
- 7 Disconnect the throttle cable from the carburettor throttle lever (see illustration).
- 8 Remove the two securing nuts and



14.6 Disconnecting the fuel hose - Ford VV carburettor



14.7 Disconnecting the throttle cable from the throttle lever - Ford VV carburettor

washers, and lift the carburettor from the inlet manifold studs (see illustrations). Recover the gasket.

Refitting

9 Refitting is a reversal of removal, bearing in mind the following points.

10 Ensure that the mating faces of the inlet manifold and carburettor are clean, and use a new gasket.

11 Ensure that the coolant hoses, fuel hose, and vacuum pipe are correctly routed and free from restrictions. If any of the hoses were originally secured with crimped type clips, discard these and use new worm drive clips on refitting.

12 On completion, check and if necessary top-up the coolant level. Check and if necessary adjust the idle speed and mixture.

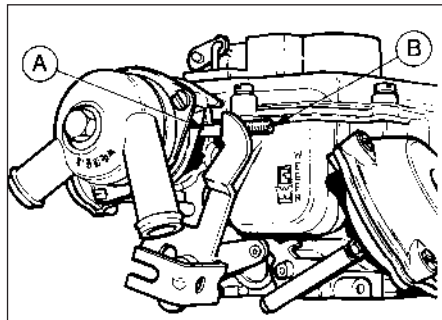
15 Carburettor (Ford VV type) - idle speed and mixture adjustment

Refer to Chapter 1, Sections 15 and 16.

16 Carburettor (Weber 2V type) - removal and refitting

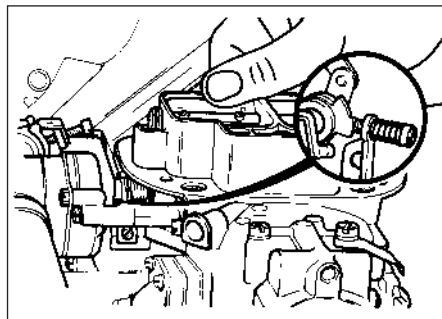
1 Proceed as described for the Ford VV carburettor but note the following.

2 On models with an electrically-heated automatic choke, ignore all references to the cooling system and coolant hoses.



18.5a Fast idle speed adjustment - Weber 2V carburettor (1.6 litre models)

A Screw on third (middle) step of cam
B Fast idle screw



18.5b Fast idle speed adjustment - Weber 2V carburettor (2.0 litre models)



14.8a Remove the securing nuts and washers . . .

3 Not all Weber carburettors are fitted with an anti-dieselling valve.

4 Disconnect all relevant wiring plugs and vacuum pipes, if necessary noting their locations for use when refitting.

5 Disconnect the link arm from the throttle linkage instead of disconnecting the throttle cable.

6 The carburettor is secured to the inlet manifold by four nuts and washers.

17 Carburettor (Weber 2V type) - idle speed and mixture adjustment

Refer to Chapter 1, Sections 15 and 16.

18 Carburettor (Weber 2V type) - fast idle speed adjustment

1 This procedure does not apply to models fitted with a carburettor stepper motor, for which no adjustment is possible.

2 Check the idle speed and mixture. The idle speed must be correct before attempting to check or adjust the fast idle speed.

3 With the engine at normal operating temperature, and a tachometer connected in accordance with the manufacturer's instructions, proceed as follows.

4 Remove the air cleaner.

5 Partially open the throttle, hold the choke plate(s) fully closed, then release the throttle so that on 1.6 litre models the fast idle adjustment screw rests on the third (middle) step of the fast idle cam (see illustration) and on 2.0 litre models the fast idle adjustment screw rests on the highest step of the fast idle cam (see illustration).

6 Release the choke plate(s), checking that it/they remain(s) fully open; if not, the automatic choke mechanism is faulty, or the engine is not at normal operating temperature.

7 Without touching the throttle pedal, start the engine and check that the fast idle speed is as specified. If adjustment is necessary, turn the fast idle adjustment screw until the correct speed is obtained.

8 On completion of adjustment, stop the engine and disconnect the tachometer, then refit the air cleaner.



14.8b . . . and lift the carburettor from the inlet manifold - Ford VV carburettor

19 Carburettor (Pierburg 2V type) - removal and refitting

1 Proceed as described for the Ford VV carburettor but note the following.

2 The Pierburg carburettor is not fitted with an anti-dieselling valve.

3 Disconnect all relevant wiring plugs and vacuum pipes, if necessary noting their locations as an aid to refitting.

4 Disconnect the throttle arm from the throttle lever by removing the retaining clip instead of disconnecting the cable (see illustration).

5 The carburettor is secured to the inlet manifold by three Torx type screws (see illustration).

6 On CVH models an insulator block is fitted between the carburettor and the inlet manifold in place of a gasket. There is no need to renew the insulator block on refitting.



19.4 Throttle arm retaining clip (arrowed) - Pierburg 2V carburettor



19.5 Removing the carburettor securing screws (arrowed) - Pierburg 2V carburettor

20 Carburettor (Pierburg 2V type) - idle speed and mixture adjustment

Refer to Chapter 1, Sections 15 and 16.

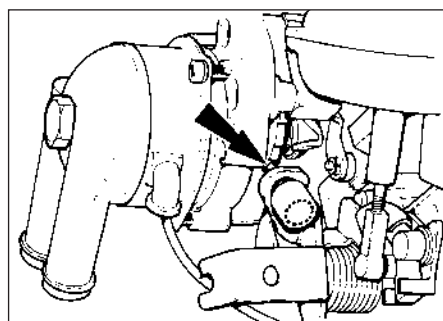
21 Carburettor (Pierburg 2V type) - fast idle speed adjustment

- 1 Check the idle speed and mixture adjustment. The idle speed **must** be correct before attempting to check or adjust the fast idle speed.
- 2 With the engine at normal operating temperature, and a tachometer connected in accordance with the manufacturer's instructions proceed as follows.
- 3 Remove the air cleaner.
- 4 Position the fast idle speed adjustment screw on the lowest (6th) step of the fast idle cam (see illustration).
- 5 Check that the fast idle speed is as specified. If adjustment is required, stop the engine and proceed as follows.
- 6 Remove the tamperproof cap from the fast idle speed adjustment screw.
- 7 Ensure that the adjustment screw is still resting on the lowest step of the fast idle cam, then open the throttle so that a small screwdriver can be used to adjust the screw from below the carburettor.
- 8 Start the engine and recheck the fast idle speed.
- 9 If necessary, repeat the procedure given in paragraphs 7 and 8 until the correct fast idle speed is obtained.
- 10 On completion of adjustment, stop the engine and disconnect the tachometer, then refit the tamperproof cap to the adjustment screw, and refit the air cleaner.

22 Carburettor (Weber 2V TLD) - removal and refitting



Caution: Refer to the precautions in Section 1 before proceeding.



21.4 Fast idle speed adjustment - Pierburg 2V carburettor

Screw (arrowed) should rest on lowest (6th) step of cam

Note: A new gasket must be used when refitting the carburettor. A tachometer and an exhaust gas analyser will be required to check the idle speed and mixture on completion.

Removal

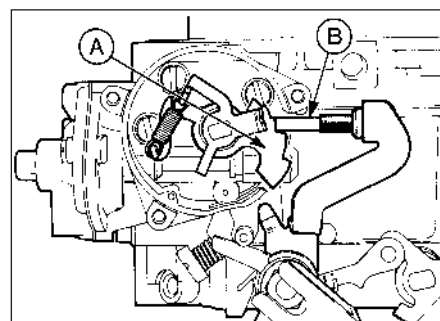
- 1 Disconnect the battery negative lead.
- 2 Remove the air cleaner.
- 3 Disconnect the wiring from the anti-dieselling (anti-run-on) valve.
- 4 Disconnect the wiring from the automatic choke heater.
- 5 Disconnect the fuel supply and return hoses, noting their locations to aid refitting. Plug the ends of the hoses to minimise petrol spillage.
- 6 Disconnect the link arm from the throttle linkage.
- 7 Disconnect the vacuum pipe.
- 8 Release the coolant hose from the bracket under the automatic choke housing.
- 9 Unscrew the four Torx screws, and lift the carburettor from the inlet manifold. Recover the gasket.

Refitting

- 11 Refitting is a reversal of removal, bearing in mind the following points.
- 12 Ensure that the mating faces of the inlet manifold and the carburettor are clean, and use a new gasket.
- 13 Ensure that all hoses, pipes and wiring are correctly routed, and free from restrictions. If any of the hoses were originally secured with crimped-type clips, discard these, and use new worm-drive clips on refitting.
- 14 Make sure that the coolant hose is correctly positioned in the bracket under the automatic choke housing.
- 15 On completion, check and if necessary adjust the idle speed and mixture.

23 Carburettor (Weber 2V TLD) - idle speed and mixture adjustment

Refer to Chapter 1, Sections 15 and 16.



24.2 Fast idle speed adjustment - Weber 2V TLD carburettor

A Fast idle cam
B Adjustment screw on middle step of cam

24 Carburettor (Weber 2V TLD) - fast idle speed adjustment

- 1 Proceed as described for the Weber 2V carburettor, noting the following.
- 2 The fast idle adjustment screw should be positioned on the third (middle) step of the fast idle cam (see illustration).
- 3 Refer to the Specifications at the beginning of this Chapter for the correct fast idle speed.

25 Inlet manifold - removal and refitting

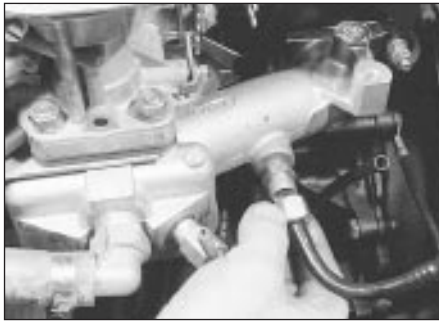
SOHC models

Removal

- 1 Disconnect the battery negative lead.
- 2 Partially drain the cooling system.
- 3 Remove the air cleaner.
- 4 Disconnect the coolant hoses from the automatic choke (where applicable), and the inlet manifold. Identify the hose locations for use when refitting.
- 5 Disconnect the fuel supply hose at the carburettor and plug the end to minimise petrol spillage.
- 6 Disconnect all relevant wiring and vacuum pipes from the carburettor, if necessary noting the locations for use when refitting.
- 7 Disconnect the throttle cable from the throttle linkage.
- 8 Disconnect the crankcase ventilation and brake servo vacuum hoses from the inlet manifold. The brake servo vacuum hose is secured with a union nut (see illustrations).
- 9 Disconnect any remaining wiring and vacuum pipes from the inlet manifold, if necessary noting the locations as an aid to refitting.
- 10 Where necessary, unbolt the throttle cable bracket from the top of the inlet manifold for improved access, and unbolt the dipstick tube bracket.
- 11 Unscrew the two nuts and four bolts securing the manifold to the cylinder head, noting the location of the rear engine lifting



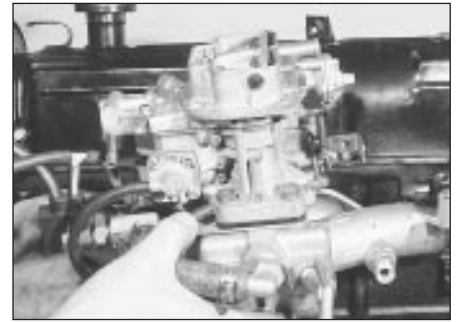
25.8a Disconnecting the crankcase ventilation . . .



25.8b . . . and brake servo vacuum hoses from the inlet manifold - SOHC models



25.11 Rear engine lifting bracket location - SOHC models



25.12 Lifting the inlet manifold from the cylinder head - SOHC models

bracket (see illustration).

12 Lift the inlet manifold from the cylinder head, and recover the gasket (see illustration).

13 If desired, the carburettor can be removed from the inlet manifold by unscrewing the securing nuts or screws. Refer to the relevant Section describing carburettor removal and refitting. Recover the gasket.

Refitting

14 Refitting is a reversal of removal bearing in mind the following points.

15 Ensure that all mating faces are clean.

16 Renew the gasket(s), and apply a bead of sealant at least 5.0 mm (0.2 in) wide around the central coolant aperture on both sides of the manifold-to-cylinder head gasket.

17 Tighten the manifold securing nuts and bolts progressively to the specified torque, ensuring that the engine lifting bracket is in place.

18 Make sure that all hoses, pipes and wires are correctly reconnected, and if the fuel supply hose was originally secured with a crimped type clip, discard this and use a new worm drive clip on refitting.

19 On completion, refill the cooling system, adjust the throttle cable and check and if necessary adjust the idle speed and mixture.

DOHC models

Removal

20 Disconnect the battery negative lead.

21 Partially drain the cooling system.

22 Remove the air cleaner.

23 Disconnect the coolant hoses from the thermostat housing and the inlet manifold, noting their locations to assist with refitting.

24 Disconnect the fuel supply and return hoses from the carburettor. Plug their ends to minimise petrol spillage.

25 Release the coolant hose from the bracket under the automatic choke housing.

26 Disconnect the HT leads from the spark plugs, and move them to one side.

27 Disconnect all relevant wiring and vacuum pipes from the carburettor, thermostat housing and inlet manifold, noting the locations as an aid to refitting.

28 Disconnect the crankcase breather hose from the inlet manifold.

29 Disconnect the throttle cable from the throttle linkage.

30 Make a final check to ensure that all relevant wires, pipes and hoses have been disconnected to facilitate removal of the manifold.

31 Unscrew the ten bolts and two nuts securing the manifold to the cylinder head.

32 Lift the manifold clear of the cylinder head. Recover the gasket.

33 Recover the two plastic spark plug spacers from the recesses in the cylinder head.

34 If desired, the carburettor can be removed from the manifold by unscrewing the securing screws. Refer to the carburettor removal and refitting Sections as necessary.

Refitting

35 Refitting is a reversal of removal, bearing in mind the following points.

36 Ensure that all mating faces are clean.

37 Ensure that the spark plug spacers are in position in the cylinder head recesses before refitting the manifold.

38 Renew all gaskets.

39 Tighten all manifold securing nuts and bolts progressively to the specified torque.

40 Make sure that all hoses, pipes and wires are securely reconnected in their original positions.

41 On completion, refill the cooling system. Check the adjustment of the throttle cable. Check, and if necessary adjust, the idle speed and mixture.

CVH models

Removal

42 Proceed as described in paragraphs 1 to 3 inclusive.

43 Disconnect the coolant hoses from the automatic choke, thermostat housing and inlet manifold, noting their locations for use when refitting.

44 Disconnect the fuel supply hose at the carburettor and plug the end to minimise petrol spillage.

45 Disconnect all relevant wiring and vacuum pipes from the carburettor, thermostat housing and inlet manifold, noting the locations as an aid to refitting.

46 Disconnect the throttle cable from the throttle linkage.

47 Unbolt the dipstick tube from the inlet manifold and withdraw the dipstick and dipstick tube from the cylinder block.

48 Unscrew the seven nuts securing the manifold to the cylinder head, then lift the manifold from the cylinder head, and recover the gasket.

49 If desired, the carburettor can be removed from the manifold by removing the securing screws. Recover the insulator block (see illustrations).

50 The carburettor intermediate plate can be removed from the manifold by unscrewing the three securing screws. Recover the gasket.

51 If necessary, the thermostat and housing can be removed from the manifold.



25.49a Removing the carburettor . . .



25.49b . . . and the insulator block from the inlet manifold - CVH models

Refitting

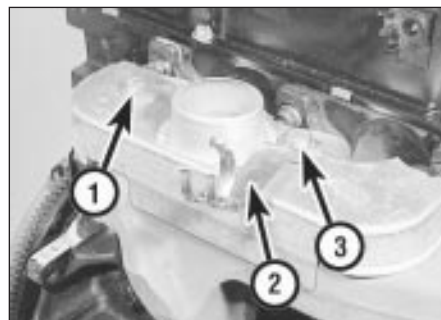
- 52 Refitting is a reversal of removal, bearing in mind the following points.
- 53 Ensure that all mating faces are clean and renew the gasket(s).
- 54 Tighten the manifold securing nuts progressively to the specified torque.
- 55 Make sure that all hoses, pipes and wires are correctly reconnected, and if the fuel supply hose was originally secured with a crimped type clip, discard this and use a new worm drive clip on refitting.
- 56 On completion, refill the cooling system, adjust the throttle cable and check and if necessary adjust the idle speed and mixture.

26 Exhaust manifold - removal and refitting



Removal

- 1 Disconnect the battery negative lead.
- 2 Remove the air cleaner and pull the hot air pick-up pipe from the exhaust manifold hot air shroud.
- 3 Remove the securing screws (1 screw on DOHC models, 2 screws on SOHC models, 3 screws on CVH models) and lift the hot air head. Recover the gasket(s) where applicable by the front hot air shroud securing screw on SOHC models (see illustration).
- 4 Unscrew the securing nuts, and disconnect the exhaust downpipe from the manifold (see illustration). Recover the gasket. Support the exhaust downpipe from underneath the



26.3 Exhaust manifold hot air shroud showing securing screws (1 and 3) and coolant hose clip (2) - SOHC models



26.4 Unscrewing an exhaust downpipe securing nut

vehicle, with an axle stand for example, to avoid placing unnecessary strain on the exhaust system.

- 5 Disconnect the HT leads from the spark plugs, if necessary identifying them for locations, and place them to one side out of the way.
- 6 Unscrew the eight securing nuts, noting the location of the front engine lifting bracket secured by the front two nuts on SOHC models, and lift the manifold from the cylinder head. Recover the gasket(s) where applicable (see illustrations).



26.6a Unscrew the exhaust manifold securing nuts . . .

Refitting

- 7 Refitting is a reversal of removal, bearing in mind the following.
- 8 Ensure that all mating faces are clean, and renew all gaskets. Note that on CVH models, no gasket is fitted between the manifold and

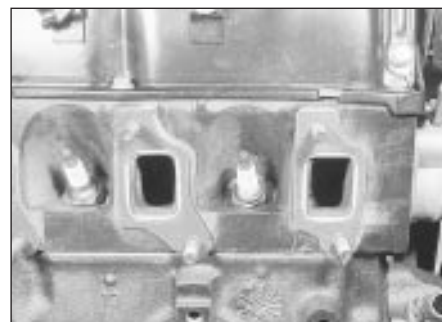
cylinder head in production, but a gasket must be used when refitting. Where applicable, remove the plastic spacer from the rear manifold stud before fitting the gasket (see illustrations).



26.6b . . . noting the location of the front engine bracket . . .



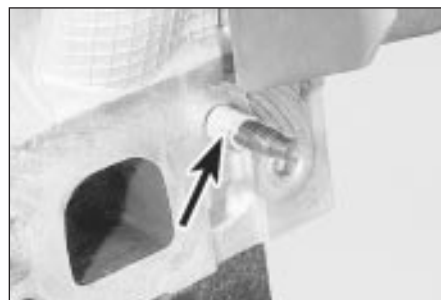
26.6c . . . and lift off the exhaust manifold - SOHC models



26.6d SOHC models have separate manifold gaskets for each exhaust port



26.8a Exhaust manifold gaskets in position on cylinder head - DOHC models



26.8b Remove the plastic spacer (arrowed) before fitting exhaust manifold gasket - CVH models



26.8c Fitting the exhaust manifold - DOHC models



27.4a Exhaust downpipe-to-manifold flanged joint viewed from underneath vehicle



27.4b Exhaust downpipe-to-main system flanged joint



27.5a Rear exhaust section mounting - Hatchback model

9 Tighten the manifold securing nuts progressively to the specified torque, and similarly tighten the exhaust downpipe securing nuts. Do not forget to fit the engine lifting bracket on SOHC models.

10 Ensure that the HT leads are reconnected to their correct cylinders.

27 Exhaust system - inspection, removal and refitting



Inspection

1 The exhaust system should be examined for leaks, damage, and security at regular intervals. To do this, apply the handbrake, then start the engine and allow it to idle. Lie down on each side of the vehicle in turn and check the full length of the exhaust system for leaks, while an assistant temporarily places a wad of cloth over the tailpipe. If a leak is evident, stop the engine and use a proprietary repair kit to seal it. If an excessive leak or damage is evident, renew the relevant section of the exhaust system. Check the rubber mountings for deterioration and renew if necessary.

Removal

2 To remove the exhaust system, jack up the front and rear of the vehicle and support on axle stands (see "Jacking and Vehicle Support").

3 If desired, the exhaust downpipe can be removed independently of the remainder of the system, and similarly the main part of the system can be removed, leaving the downpipe in place.

4 To remove the downpipe, unscrew the securing nuts and disconnect the downpipe from the manifold. Recover the gasket. Unscrew the two nuts and bolts, and separate the downpipe flanged joint from the remainder of the system. Withdraw the downpipe (see illustrations).

5 To remove the main section of the exhaust system leaving the downpipe in place, unscrew the two securing nuts and bolts and separate the flanged joint from the downpipe. Unhook the rubber mountings and withdraw the system from underneath the vehicle. The number and type of rubber mountings varies



27.5b Rear exhaust mounting - P100 model

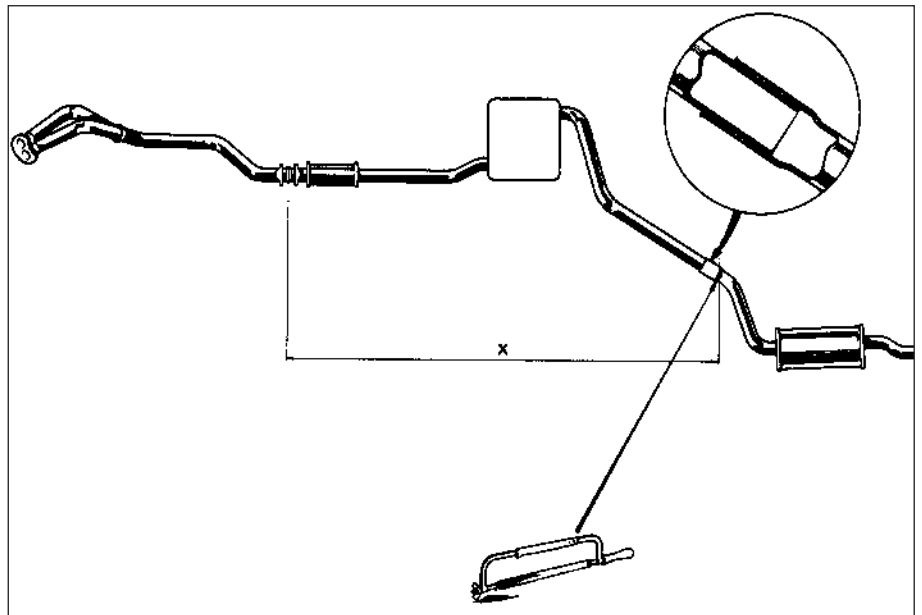


27.6 Fit a new downpipe-to-manifold gasket

according to model (see illustrations). If necessary to avoid confusion, note how the mountings are fitted to enable correct refitting. Note that on P100 models the system must be manipulated to pass over the rear axle.

Refitting

6 Refitting is a reversal of removal, but ensure that all mating faces are clean, and fit a new gasket between the downpipe and manifold (see illustration). Do not fully tighten the joint

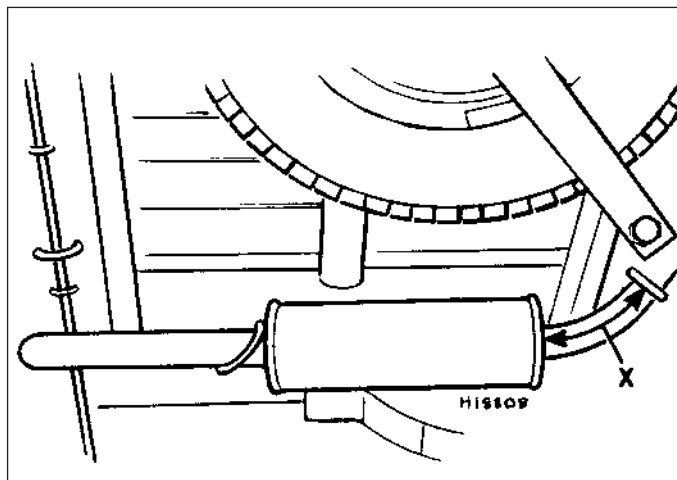


27.9a Cutting point when fitting a service replacement exhaust system section - Saloon, Hatchback and Estate models

X = 1639 mm for all models up to 1987 except 1.3 and 1.6 litre Hatchback

X = 1681 mm for 1.3 and 1.6 litre Hatchback models up to 1987

X = 2063 mm for all models from 1987



27.9b Cutting point when fitting a service replacement exhaust system section - P100 models
X = 226 mm



28.1 Low vacuum enrichment ported vacuum switch location in inlet manifold - model with Weber 2V carburettor

fittings until the system is in position and correctly aligned in its mountings under the vehicle. Ensure that no part of the exhaust system is closer than 25.0 mm (1.0 in) to the underbody.

7 Service replacement exhaust systems are available in three sections: downpipe, centre section and rear section. The service replacement sections fit together using socket joints, therefore the centre section of a production exhaust system cannot be renewed without also renewing the rear section.

8 To renew the centre and/or rear section(s) of the exhaust system, first remove the main system as described in paragraph 5.

9 To fit a service replacement rear section to a production system, use a hacksaw to cut through the pipe at the applicable point shown (see illustrations). Apply exhaust sealant to the mating surfaces of the two sections, then push the two sections together and fit a U-bolt clamp to the centre of the joint. Do not fully tighten the U-bolt clamp nuts until the system is in position and correctly aligned in its mountings under the vehicle.

10 To renew a service replacement section, unscrew the nuts and remove the U-bolt clamp from the joint. Tap around the joint to break the seal, and separate the centre and

rear sections. Ensure that the joint mating surfaces are clean, then apply exhaust sealant, push the new section onto the remaining section, and fit the U-bolt clamp to the centre of the joint. Do not fully tighten the U-bolt clamp nuts until the system is in position and correctly aligned in its mountings under the vehicle.

28 Vacuum valves, ported vacuum switches and fuel traps - removal and refitting

Refer to Chapter 5, Section 22 (see illustration).

