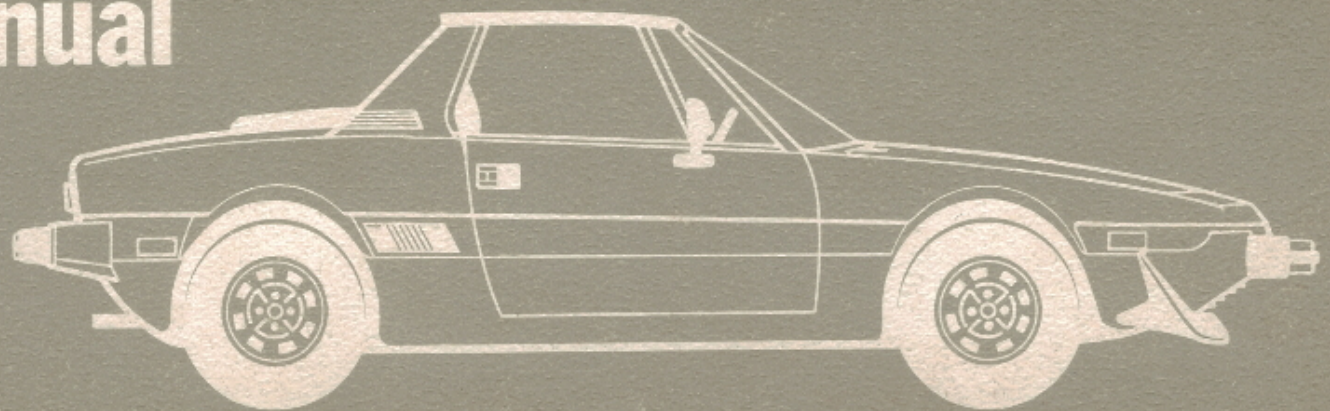


Fiat X1/9

1979
owner's manual



FIAT



When ordering FIAT parts please state (see page 52) :

- Car model and version code
- Number for spares
- Part number (see Spare Parts Catalogue)

When ordering body paint please state (see page 53) :

- Paint make (original paintwork)
- Color name
- Color code

This manual has been prepared to make you acquainted with your X1|9

We illustrate the use and position of the controls and instruments.

We provide you with the main technical information on the car: if you are desirous of more detailed information than is contained in this manual there is available for purchase from any Authorised Dealer a comprehensive workshop manual.

We remind you of some elementary rules of motoring which need refreshing from time to time.

Here are some suggestions on how to get sustained performance from your X1|9:

strictly adhere to the instructions contained in the " Warranty and Service Book " and have the Programmed Maintenance operations carried out

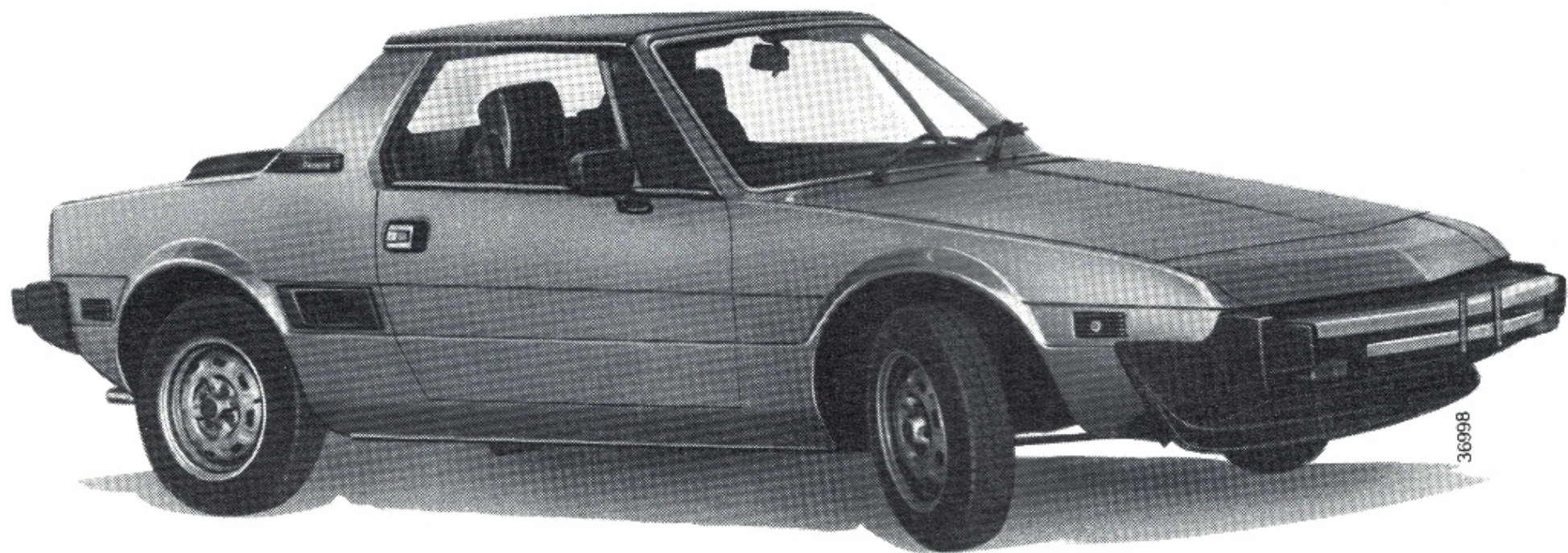
always insist on genuine FIAT replacement parts

remember that your FIAT engine has been feeding on Oliofiat right from its birth.

Stick to the above rules and you will have a trouble-free and safe motoring.

Look after your X1|9: this will add to the life of your car and enhance its commercial value.

Fiat Auto S.p.A.



36998

Fiat X1/9

Before driving your FIAT

Page 5

Driving your FIAT

» **21**

Maintenance and do-it-yourself servicing

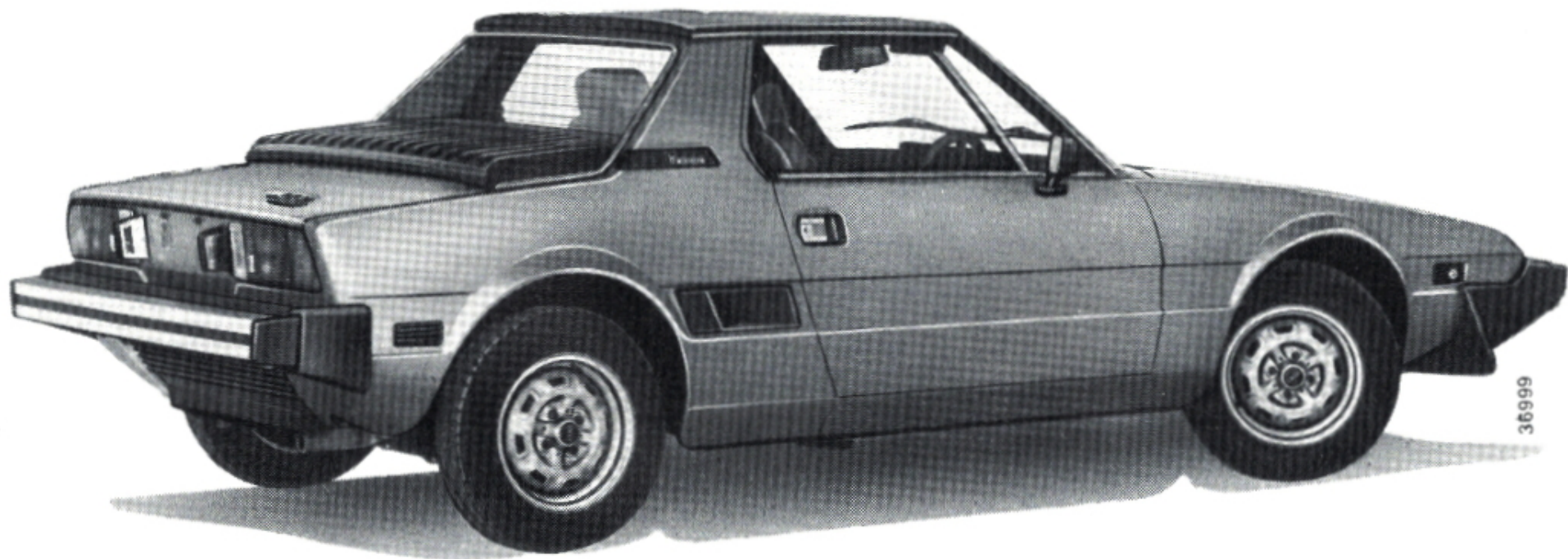
» **31**

Specifications

» **51**

Index

» **66**



36999

**BEFORE
DRIVING YOUR
FIAT**

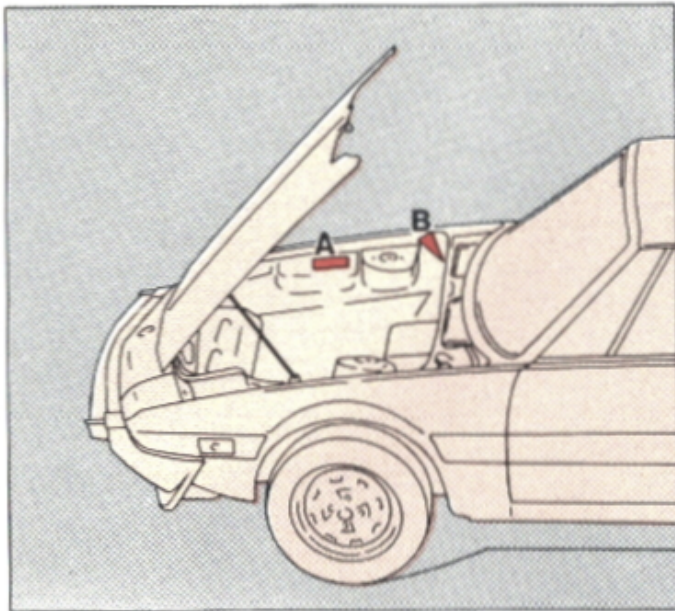
IDENTIFICATION DATA

(see also pages 52-53)

A - Identification data plate

B - Chassis type and number

located in front trunk

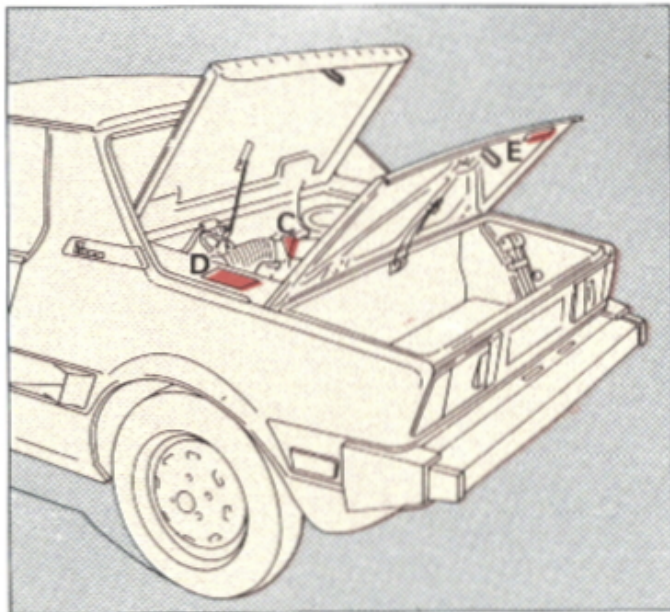


37075

C - Engine type and number, stamped on cylinder block

D - Vehicle emission control information tag

located in engine compartment



37076

E - Paintwork label including paint make, color and color name

located in rear trunk

KEYS

Your car is provided with two sets of keys.

A - Steering lock ignition switch

B - Door key

We recommend recording the number stamped on each key in the space provided on the inside back cover of the «Service» booklet. Should you lose a key you may obtain a replacement from the FIAT Service Network quoting the identification number.



DOORS

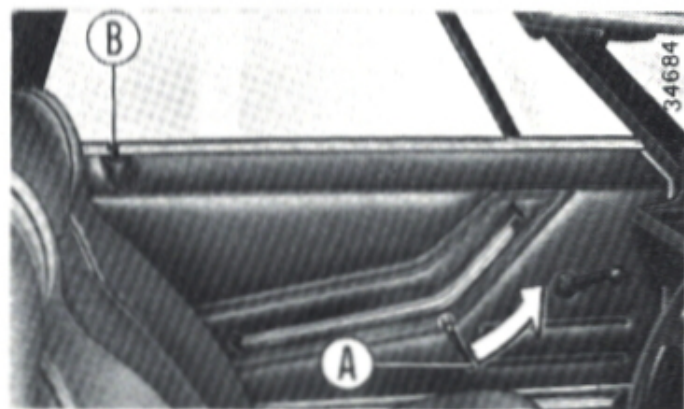
Opening from outside: unlock and pull the grip.

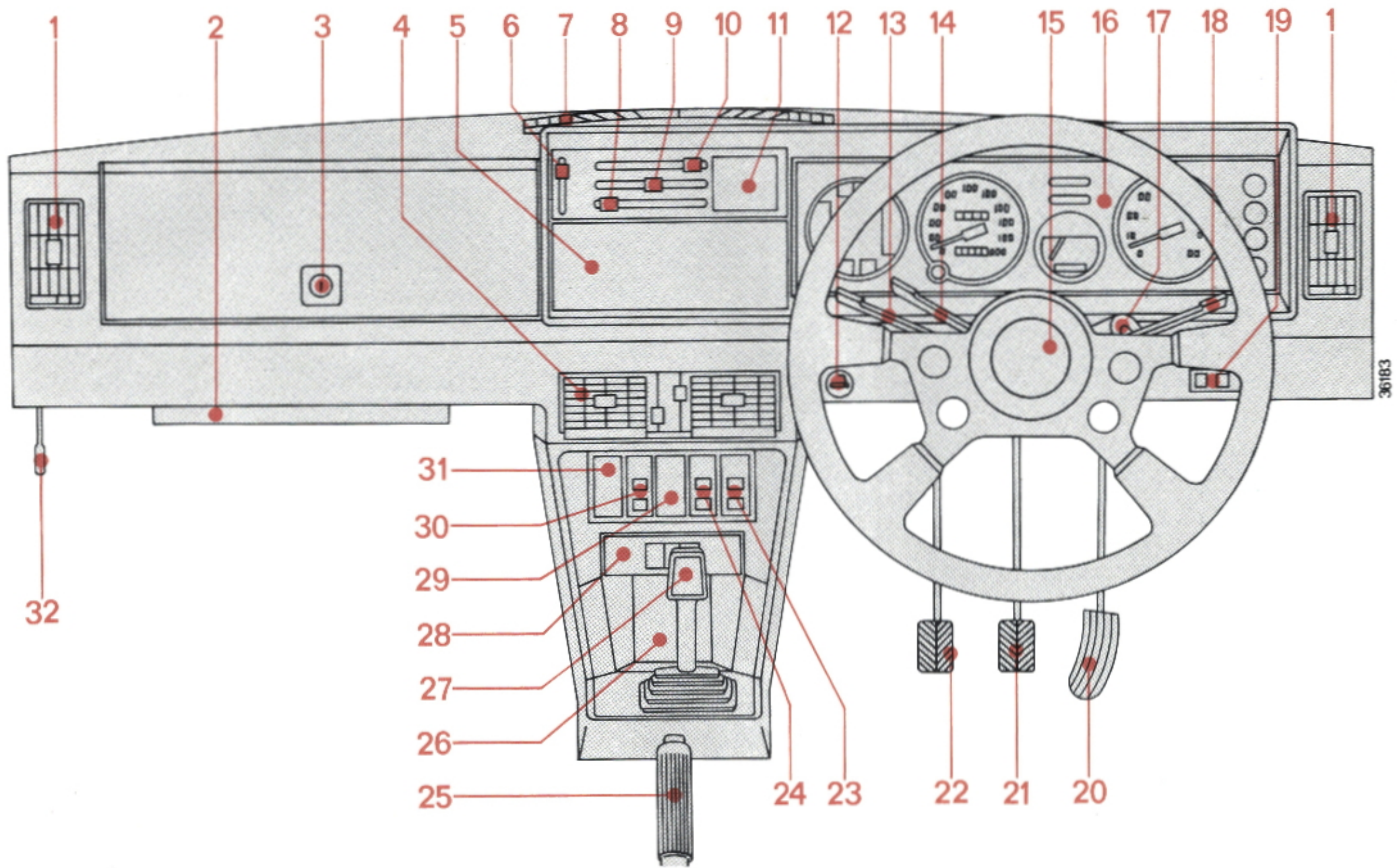
Opening from inside: pull up lever A irrespective of position of button B. Opening of either door switches on the courtesy light.

Locking from outside: both doors are provided with key-operated lock. Stepping out and locking on curb side is thus also possible.

Locking from inside: press button B but only with doors already shut.

Do not press in button B with the doors open: always use the key.





INSTRUMENTS AND CONTROLS

- | | | |
|---|---|---|
| 1 Panel side air outlets, adjustable | 12 Cigar lighter/light | 22 Clutch pedal |
| 2 Fuse box lid | 13 High/Low beams change-over switch lever | 23 Hazard warning switch |
| 3 Glove compartment knob | 14 Turn signal switch lever | 24 Back window demister switch |
| 4 Panel center air outlets, adjustable | 15 Horn button | 25 Hand brake lever |
| 5 Radio housing blanking lid | 16 Instrument cluster | 26 Tray |
| 6 Heater fan switch | 17 Steering lock ignition switch | 27 Gearshift lever |
| 7 Air diffusers | 18 Windshield wiper/washer switch lever | 28 Ash tray |
| 8 Air volume control lever | 19 Lighting switch | 29 Spare switch housing |
| 9 Air temperature control lever | 20 Accelerator pedal | 30 Instrument cluster light switch |
| 10 Heater outlet flap lever | 21 Service brake pedal | 31 Spare switch housing |
| 11 Digital clock (where fitted) | | 32 Front trunk release |



Steering Lock Ignition Switch

MAR (*Run*) = Engine ignition ON and accessories energized

AVV (*Start*) = Engine starting

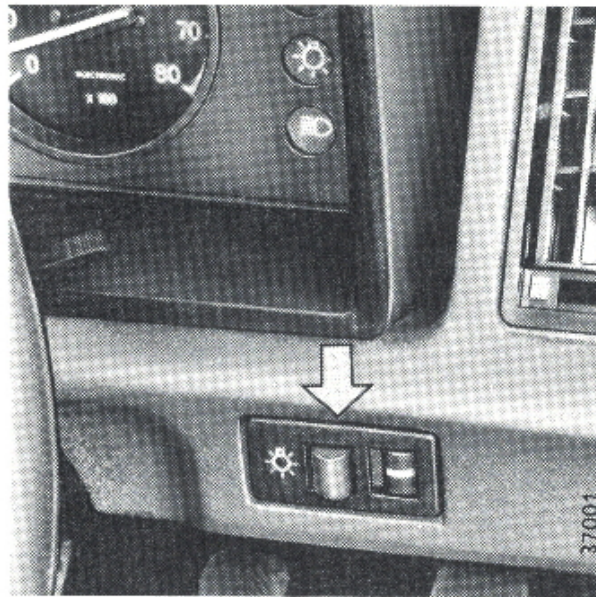
ST(*) (*Stop*) = Steering post anti-theft lock in; key removable

Notes - a) The total or partial removal of key will lock the steering post even if car is in motion.

To facilitate the disengagement of steering post lock, slightly rock the steering wheel while rotating the key.

Key must not be left in position MAR when engine is inoperative and must be removed only when leaving the car, especially if unattended.

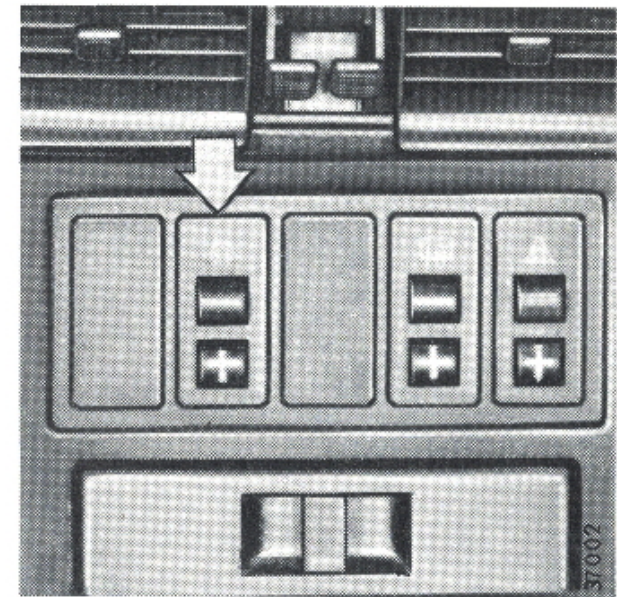
b) A second starting attempt can be made only if the key is returned to ST position.



Lighting/Cluster Light Switch

Pressed at Left: OFF

Center Position: parking and tail lights, licence plate lights, cluster lights ON. With ignition key at MAR: headlights in raised position, headlight flashes



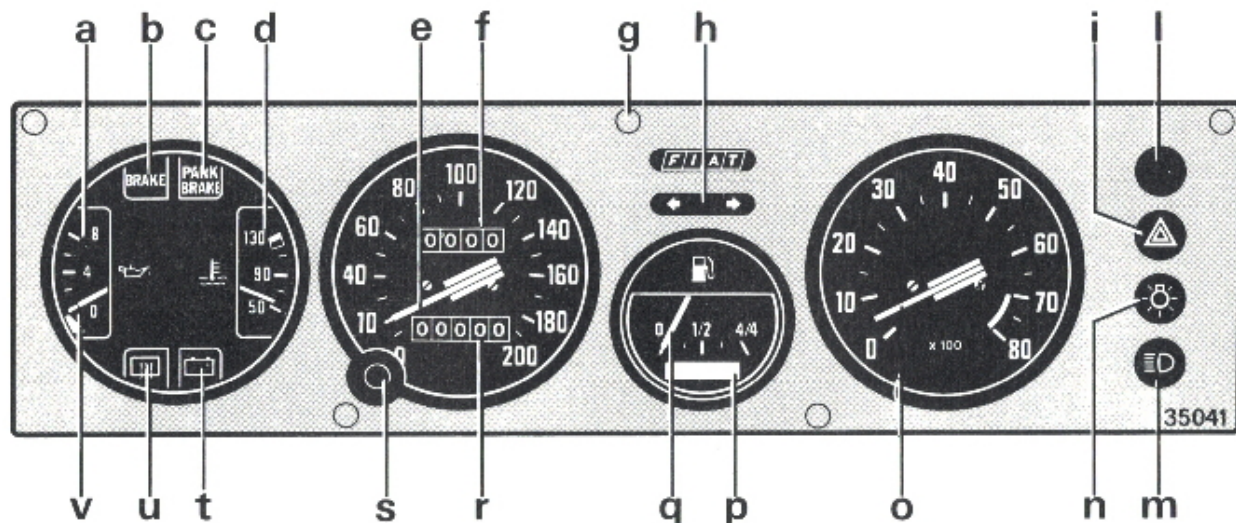
Pressed at Right (and ignition key at MAR): Parking and tail lights, licence plate lights, cluster lights, concealed headlights in raised position and ON (see page 12).

Instrument Cluster Light/Dimmer Switch

Pressed at Top = Off

Center = Dim

Pressed at Bottom = Bright



Instrument Cluster

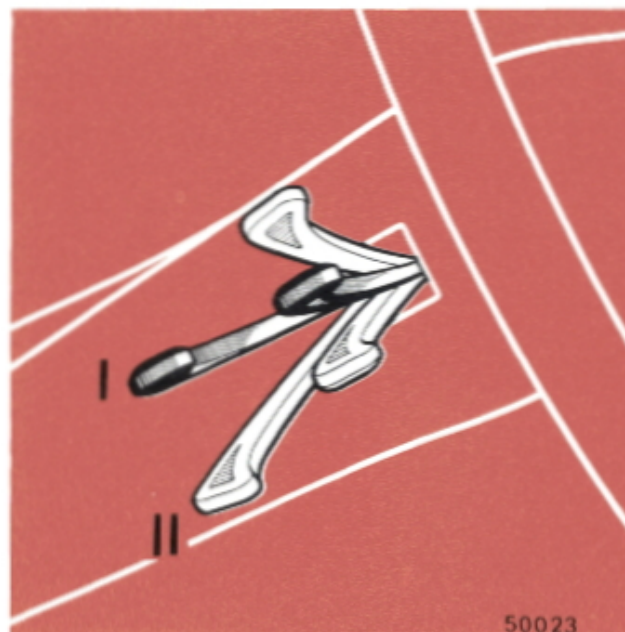
- a) **Oil Pressure Gage** - Normal operating pressure: 4,5 to 6 kg/cm² (4,5 to 6 bar *)
- b) **BRAKE Indicator** (Red) - Comes on when the ignition switch is turned to AVV (Start) to warn the driver that the bulb is efficient and must go out when the key is in position MAR.
- c) **PARK BRAKE Indicator** (Red) With lock switch in position MAR

it warns the driver that the hand brake lever is pulled upwards.

- d) **Engine Water Temperature Gage** - If the pointer enters the red sector it means that the engine is overheating: it will then be necessary to immediately rev down the engine to idle speed (do not switch off). Should the pointer remain on the red sector, contact the nearest FIAT Dealer for a cooling system check (including fan circuitry).
- e) **Speedometer**

- f) **Trip Recorder**
The trip figure can be cancelled by means of knob s
- g) **Cluster Panel Mounting Screws** (Five)
- h) **Turn Signal Arrow Indicator** (Flashes Green)
- i) **Vehicular Hazard Warning Indicator** (Red)
- l) **Spare Indicator**
- m) **High Beams Indicator** (Blue)
- n) **Parking and Tail Lights Indicator** (Green)
- o) **Tachometer** - Electronically-operated from the ignition distributor. The yellow sector indicates maximum engine speed for all gears, whereas the red sector shows dangerous engine operating speeds.
- p) **Fuel Reserve Indicator** (Red) - Warns the driver that the fuel supply available in the tank is between 5 and 7,5 liters.

- q) **Fuel Gage**
- r) **Odometer**
- s) **Trip Recorder Zeroing Knob**
Turn counterclockwise but never with vehicle running.
- t) **Battery Charge Indicator (Red)**
With engine inoperative, and lock switch key in position MAR, the charge indicator is on and must go out when engine is started: should indicator turn on while engine is running, this is a warning of a fault in the battery recharging system: turn immediately to a FIAT Dealer for assistance.
- u) **Back Window Demister Indicator (Amber - where installed)**
- v) **Insufficient Oil Pressure Indicator (Red)** - The light should go out when oil pressure is sufficient to ensure adequate engine lubrication.



50023

High/Low Beams Change-Over Switch Lever (With lighting switch pressed at Right)

- I** = Low beams
- II** = High beams

By lifting the lever towards steering wheel, headlight high beam flashes are obtained even with all lights out (Daylight signals).

Turn Signal Lights Switch Lever
Automatically trips back to OFF.

- R** = Right turn
- L** = Left turn

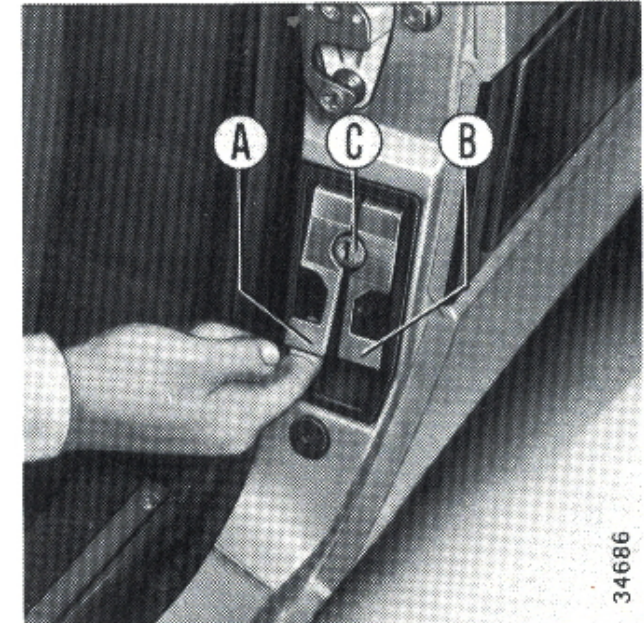
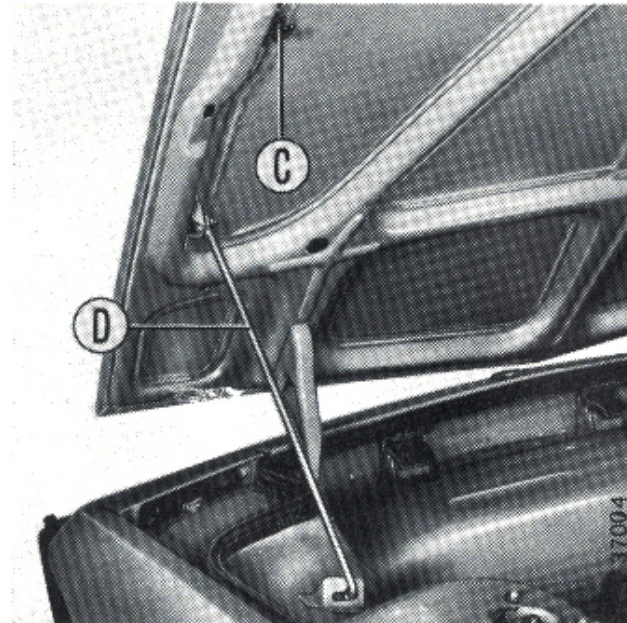
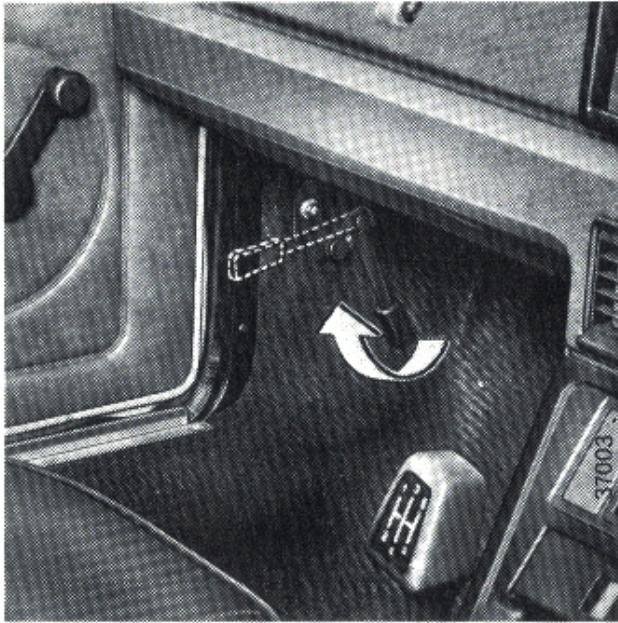


37077

Windshield Wiper/Washer Switch Lever

- a** = Off
- b** = Intermittent operation
- c** = Low sweep rate
- d** = High sweep rate

Lifting the lever towards steering wheel, whatever its position, will switch on the washer.



To lock the lid, let it rest on the latch then push the handle forward.

The trunk lid is held in open position by stay **D** which must be set in the retainer seat provided, as shown.

Secure stay in fastener **C** before shutting the lid: this will prevent rattling noises while driving.

Press with hand in latch area to snap shut the lid.

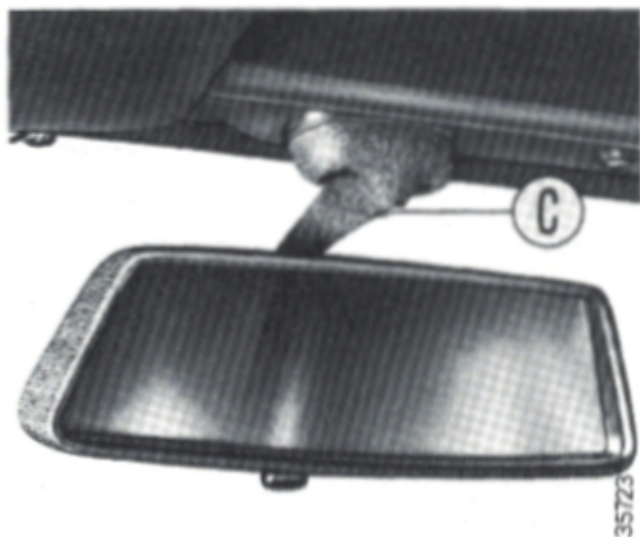
Front Trunk - To release, pull handle located underdash, lefthand side of steering post.

A = Engine Hood Latch Release Lever

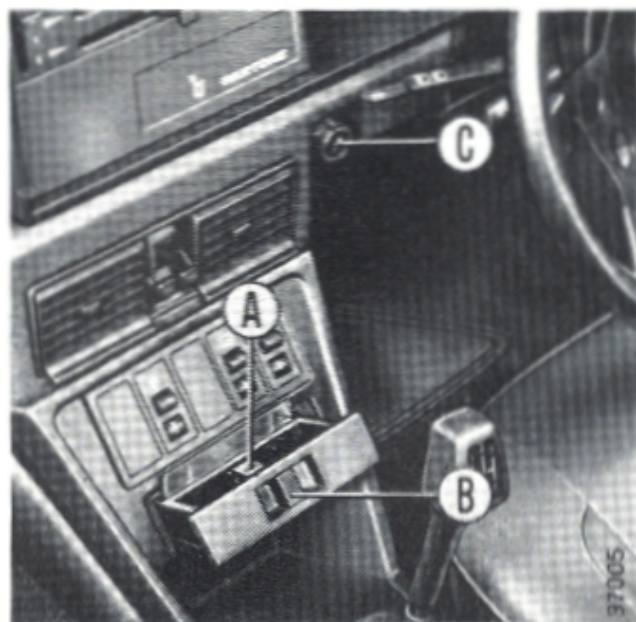
B = Rear Trunk Latch Release Lever

Both levers are located on left side door jamb: use door key to release lock **C** and then pull up as shown.

34686



Inner Rear View Mirror - Collapsible, with anti-glare (Day/Night) position controlled by lever. If the mirror comes off its seat, following an impact, refit by slackening screw **C**, engaging two location dowels with relevant seats, pressing on mirror base and retightening the screw.



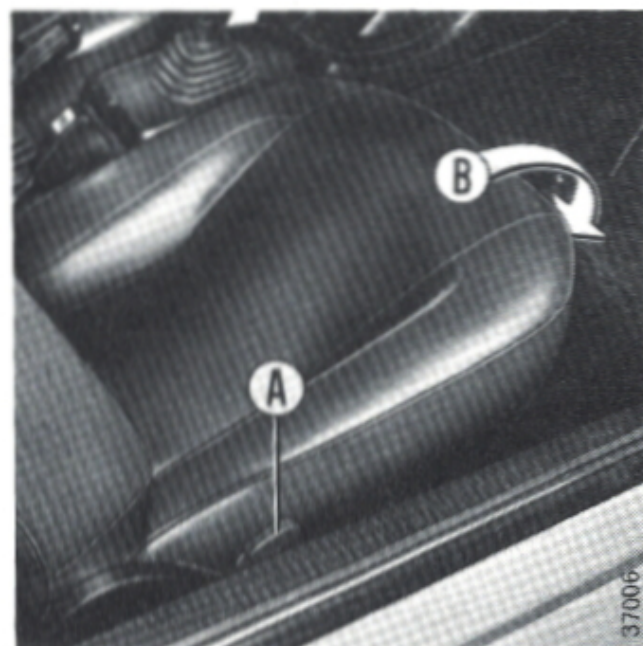
Ash Tray

Pull tongue **B** to open.

For periodical cleaning, press in stubber **A** then pull out the tray.

Cigar Lighter

To operate, press in knob **C**: after about 15 seconds it will snap out, ready for use. When parking lights are ON, an amber indicator illuminates the lighter housing.



SEATS

The seats are adjustable for leg reach after moving control lever **B** upwards.

Once the desired position is found, release the lever and make sure the seat has locked.

Seat backrest may be tipped forward by pulling lever **A**.

SEAT BELTS

To Fasten - Insert tongue **C** into the buckle until a sharp clic is heard.

Belt section running out from retractor **B** and going through loop **A** automatically suits the occupant and permits ample freedom of movement while providing the necessary restraint in case of rapid decelerations on rapid webbing withdrawal.

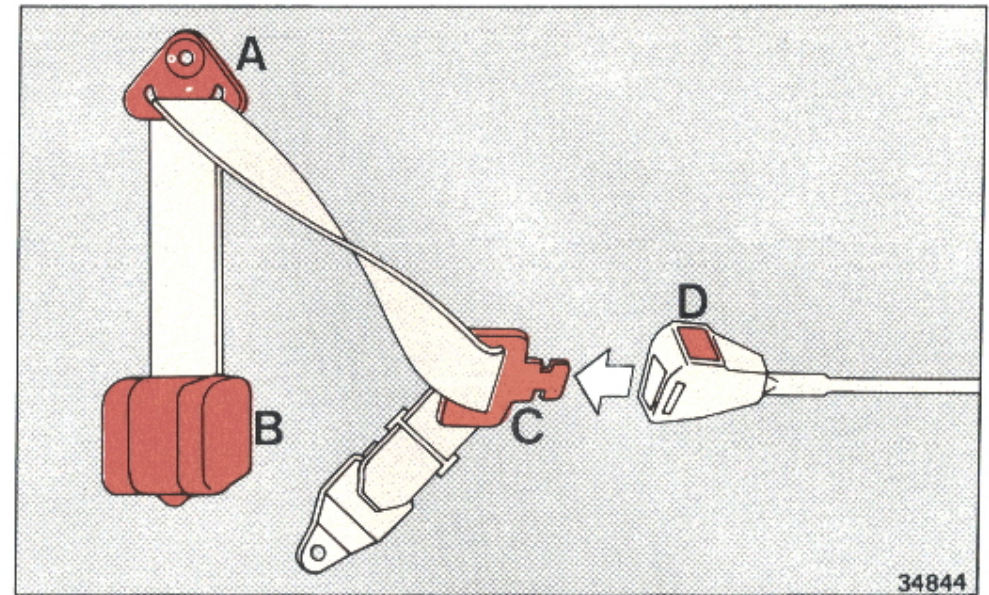
To Unfasten - Press in button **D** to release the buckle. Tongue **C** will automatically slide out and the belt will return on the stowed position.

(Excerpts from ADR 4C para. 2.8 - Subpara. 1 and 2a):

WARNING: Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may be safely carried out using mild soap and water.



The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

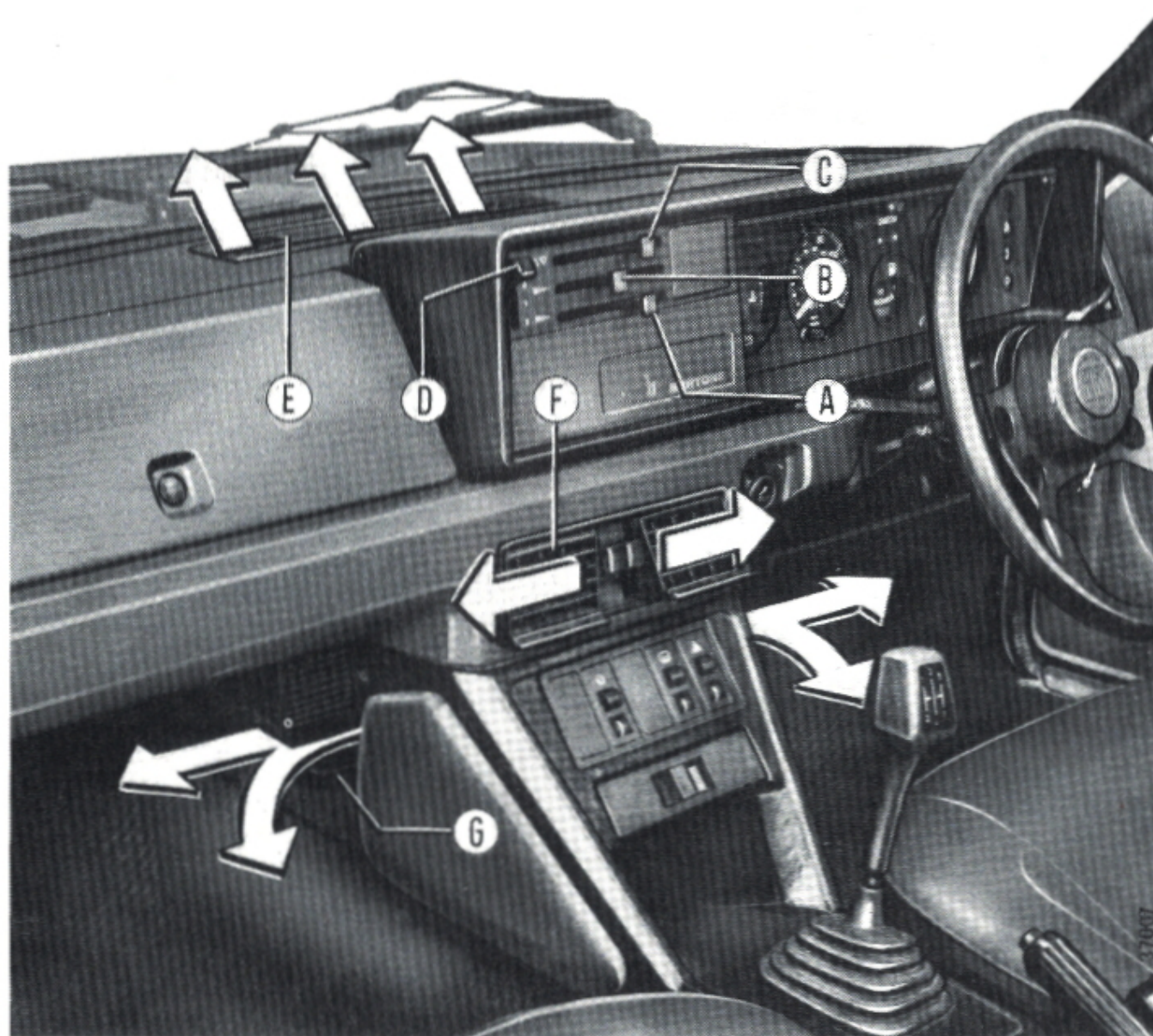
Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

.....

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack ...

VENTILATION AND HEATING



Ventilation and heating are adjustable according to seasonal requirements.

To ensure best comfort to occupants it is important to become familiar with system controls and operation.

Lever A sets the volume of air flowing into car through diffuser **E**, outlets **F** and flap **G**.

Left: maximum flow of air.

Lever B sets the temperature of the heated air flowing into car through diffuser **E**, outlets **F** and flap **G**.

Left: maximum temperature of air.

For maximum heating: move levers **A** and **B** to the far left.

For maximum ventilation: move lever **A** to the far left and lever **B** to the far right.

Lever C controls flap **G**.

Right: air flows out of flap **G**, diffuser **E** and outlets **F**.

Left: flap **G** shut. Air flows only out of diffuser **E** and outlets **F**.

Three-position switch D controls the heater fan and is operative when ignition switch key is set on MAR.

« 0 »: OFF

« 1 »: low speed

« 2 »: high speed

The fan is switched on to increase the flow of air when car travels at low speeds.

Diffuser E conveys air only onto windshield.

Center outlets F send air to car interior:

Levers I up (green dots) = open

Levers I down = closed

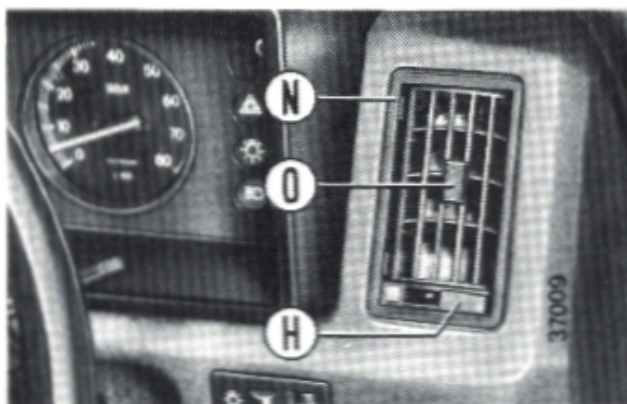
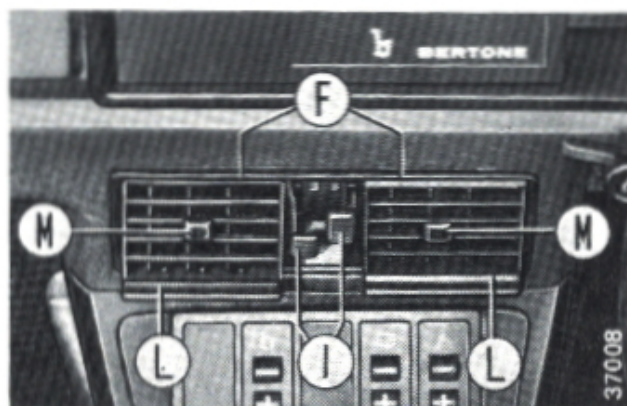
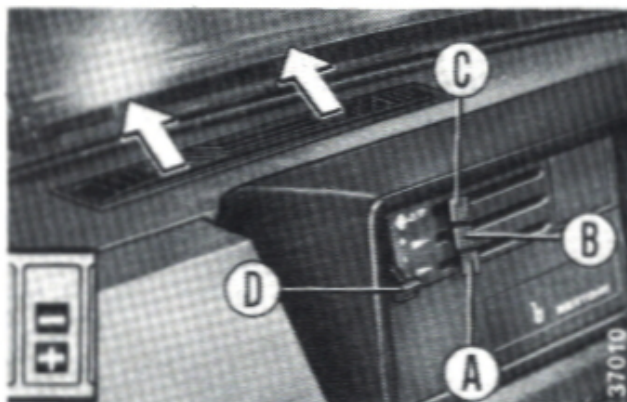
Move tabs L for vertical adjustment.

Move levers M for horizontal adjustment.

Side outlets N are adjustable and convey only fresh air:

Lever H set at the left (green dot) = open

Lever O is used for vertical and horizontal adjustment.



Stale air valve extractors in rear quarter pillars activate interior air renewal when travelling with closed windows.

Defrosting and Demisting

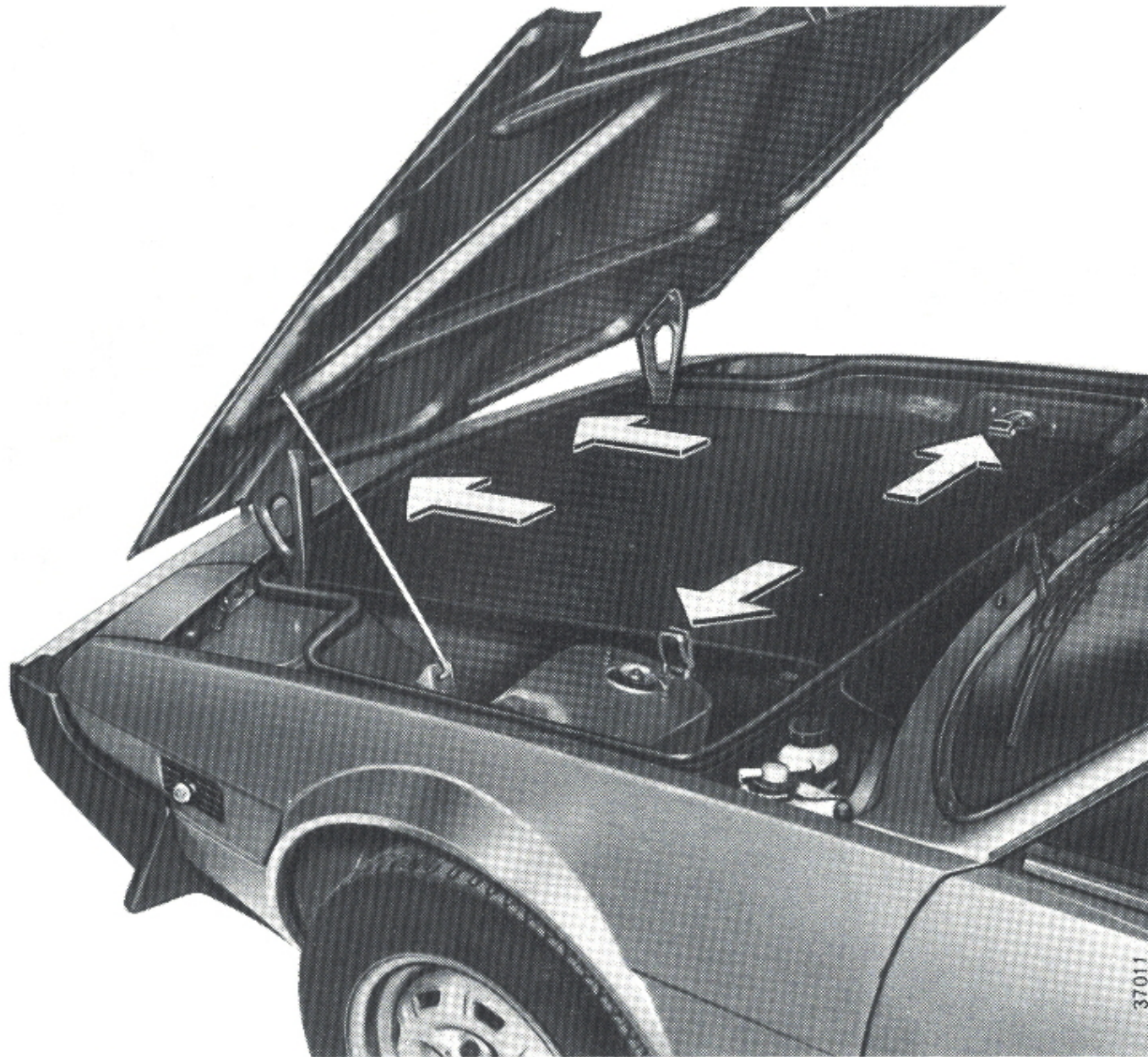
For quick defrosting of windshield move levers **A**, **B** and **C** to the left, move levers **I** down to shut outlets **F** and set switch **D** at position « 3 »: air is thus conveyed exclusively against windshield.

To clear the rear glass on cars equipped with back window demister, actuate the switch (see 24, page 9).

Frost Precautions

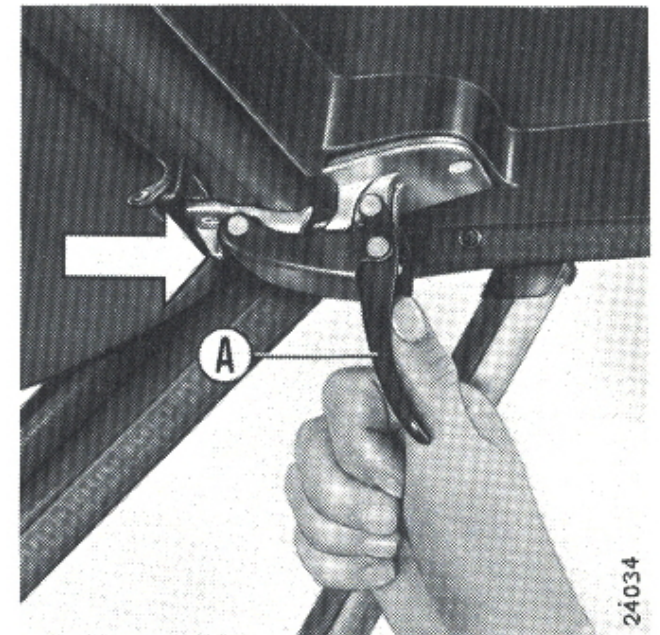
If during cold weather the car must remain inactive for some time at freezing temperatures and the cooling system is not protected with antifreeze mixture, it will be necessary while draining the radiator and jackets to empty also the heater core by shifting lever **B** to the far left.

HARDTOP REMOVAL



The hardtop can be stowed in the front trunk without detracting from the available luggage space.

- Open the front trunk, raise the lid and prop up.



■ Lower the sunvisors, release two overcenter catches **A** by pulling downwards simultaneously, hold the catches in their seats and push the lever forward to loosen the top.

■ Raise the hardtop from inside the car until two lugs **B** are clear of recesses **C**, and lift off.

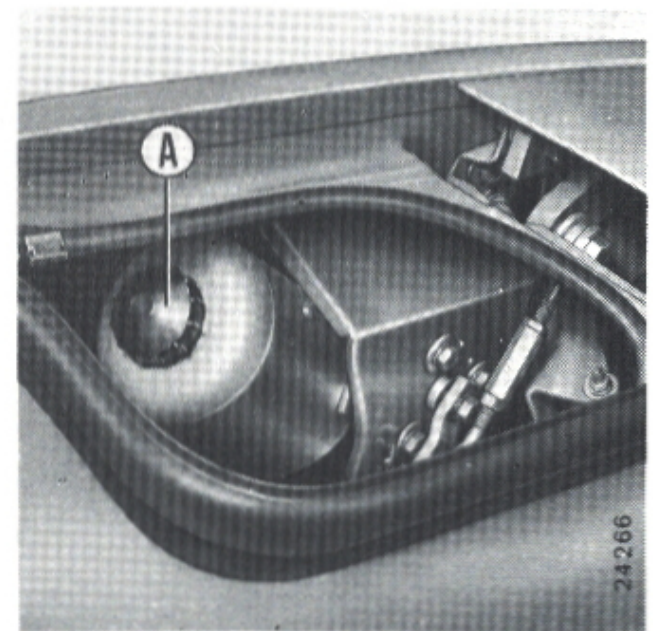
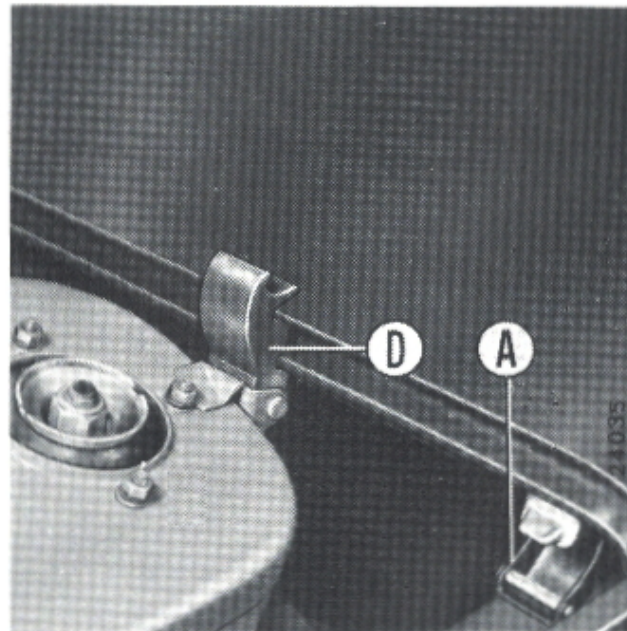
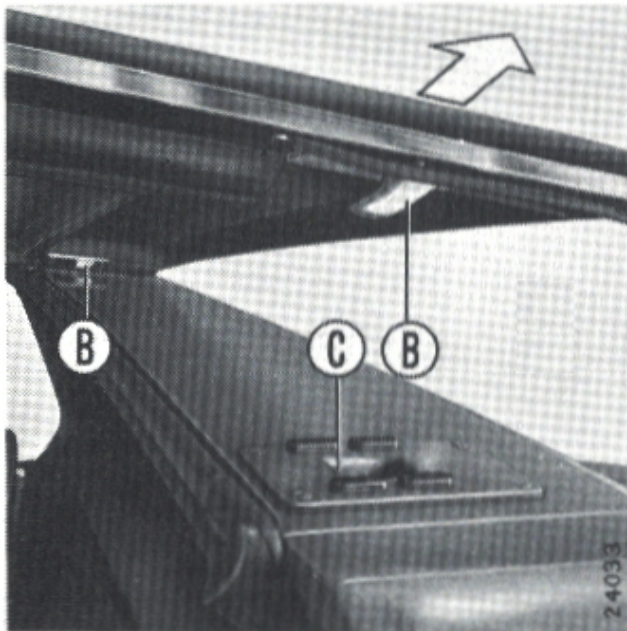
■ Fold back the overcenter catches, turn the top round through 90° so that both catches face towards the left-hand side of the car.

■ Place the hardtop in the boot ensuring that it engages the anchor points provided, and fasten rubber retainers **D**.

HEADLIGHTS MANUAL OPERATION

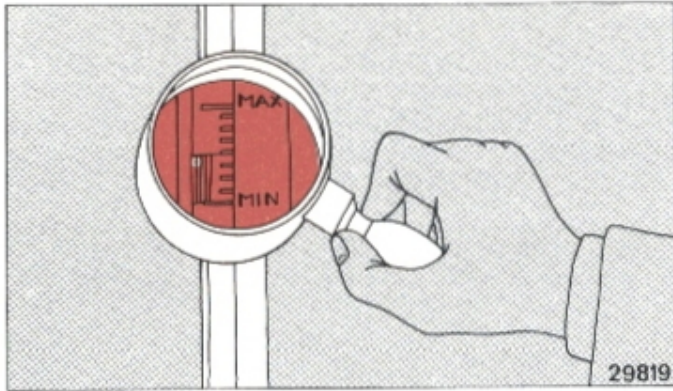
In emergencies, the headlights may be set in open position manually.

First remove protection cover by turning winged retainer 90°. Then, turn knob **C** on headlight motor shaft until the unit is fully raised.



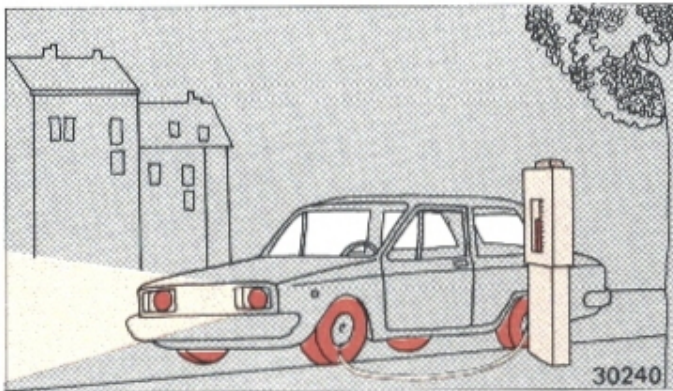
**DRIVING
YOUR
FIAT**

VITAL CHECKS BEFORE STARTING



Periodically or before starting on a long journey, check the levels of engine coolant, engine oil, clutch fluid, brake fluid and battery electrolyte.

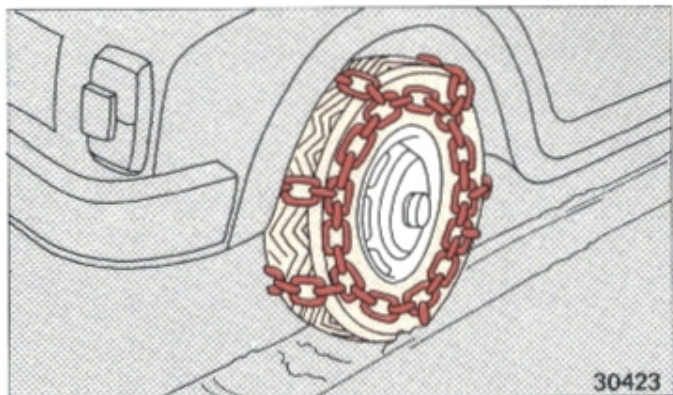
For engine oil grades and corresponding atmospheric temperature see page 63.



It is vitally important that tire pressures are correct (see page 63).

Before you start a trip, especially if at night-time, check all lights visually.

As the winter season approaches and before travelling to a colder climate check the engine coolant for the correct antifreeze/water strength (see page 63).



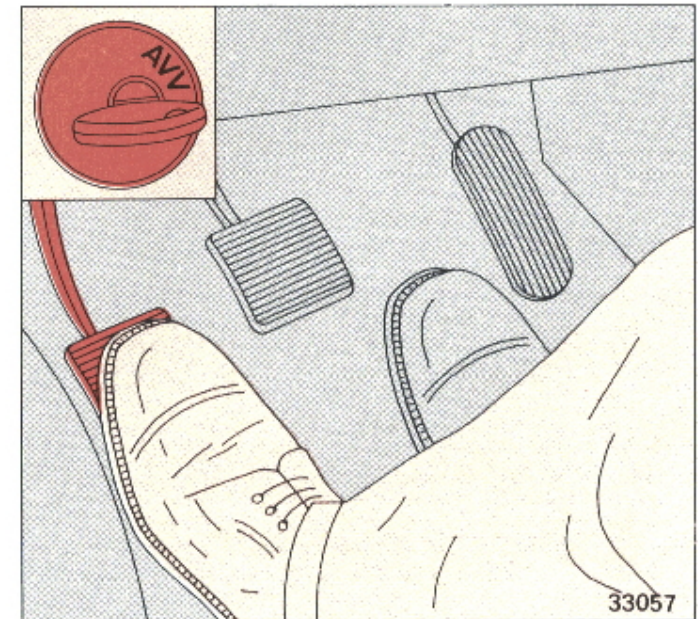
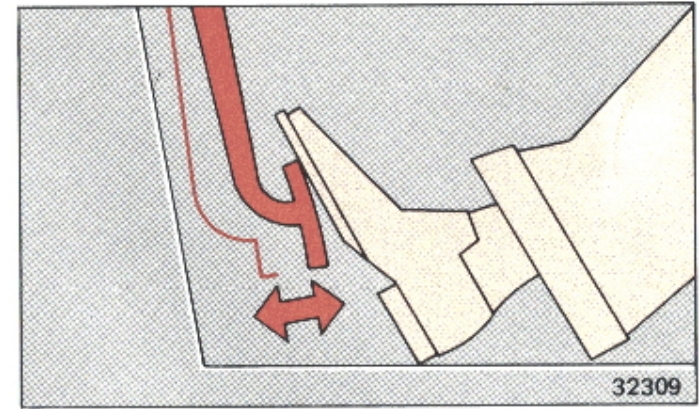
Use chains or studded tires before starting on a journey on ice or snow-covered roads and remember that whilst snow chains can be fitted to the driving wheels only, studded tires should be fitted to all wheels.

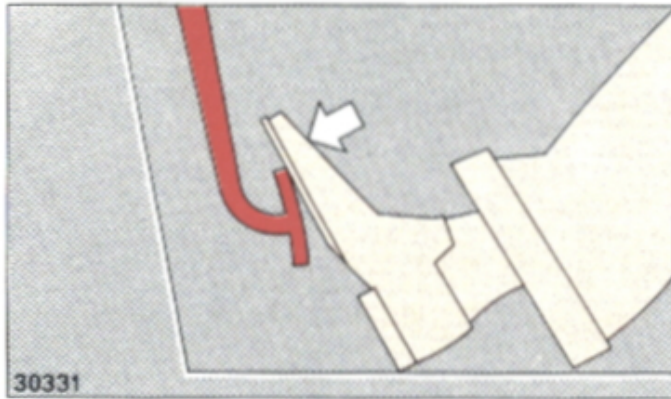
Local authorized Dealers are conversant with National requirements and their advices should be obtained.

STARTING THE ENGINE

When Cold

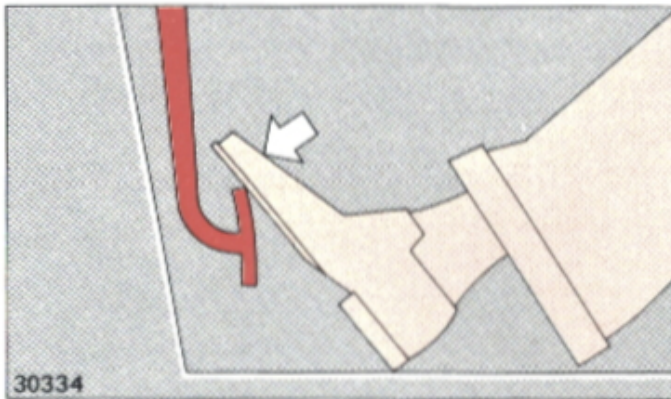
- Ensure that the gear lever is in neutral.
- Depress the accelerator pedal and release. This will enable the automatic choke to come into operation.
- Turn the ignition key to AVV position and release it immediately the engine fires. Depress the clutch pedal when operating the starting motor; this is particularly important in cold climates.
- Avoid fierce accelerations when the engine is cold. In very cold climates, idle the engine for a few seconds prior to moving off.



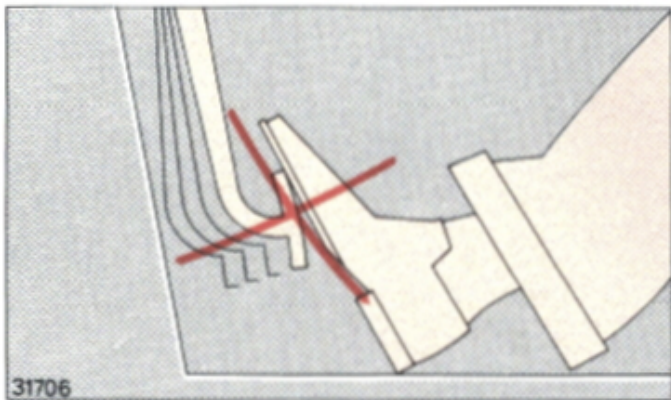


When Hot

- Depress the accelerator pedal through a quarter of its travel.
- Turn the ignition key to AVV position and release immediately the engine fires.



- Should the engine be difficult to start when hot, depress the accelerator pedal fully in, again releasing it as soon as the engine fires.

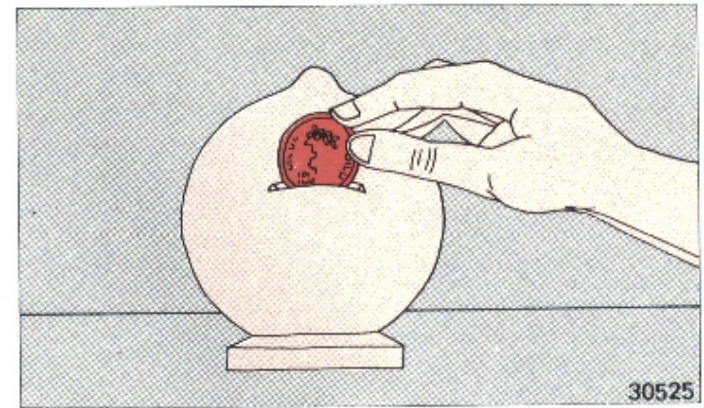


- Do not pump the accelerator pedal, otherwise the excessively rich mixture forming in the carburetor will result in difficult starting.

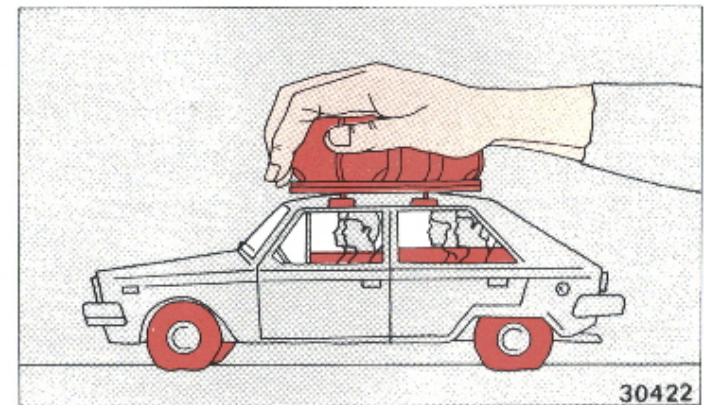
Do not run the engine in a closed shed or garage: exhaust gases are poisonous.

IN TERMS OF FUEL CONSUMPTION

Fuel consumption will be kept within reasonable limits when spark plugs are clean and electrode gap correct, and when carburetor, cooling system and air cleaner are in good conditions.

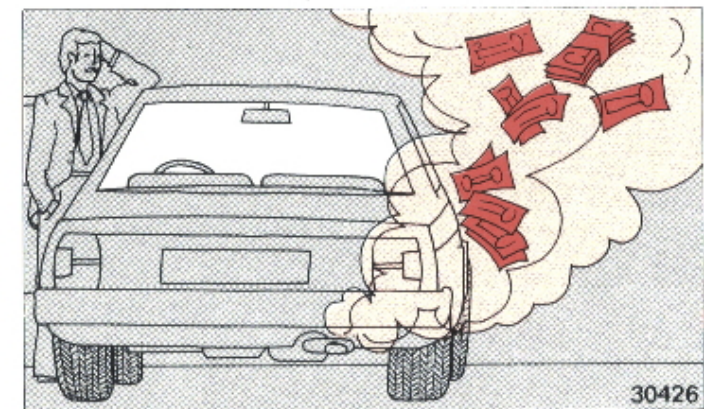


Conversely, fuel consumption increases with the roof rack in position, the windows open and the tires underinflated.



In particular :

- Avoid idling the engine unnecessarily.
- When starting from cold, help automatic choke deactivation by depressing the accelerator pedal once more.





- Do not step on the accelerator pedal : accelerate gently.

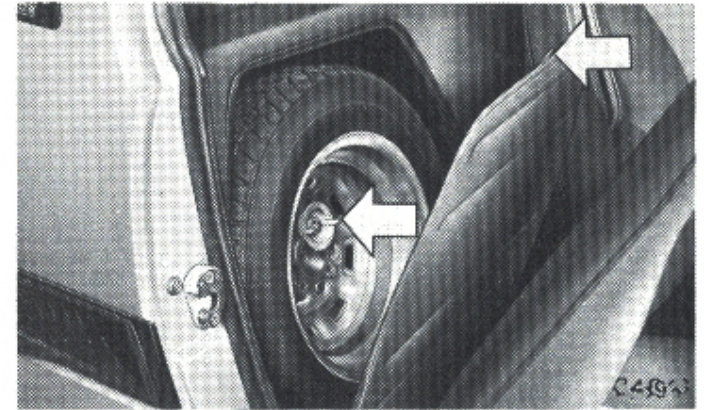
Never race the engine unnecessarily nor toy with the accelerator when waiting at traffic lights. Avoid sudden starts at full throttle.



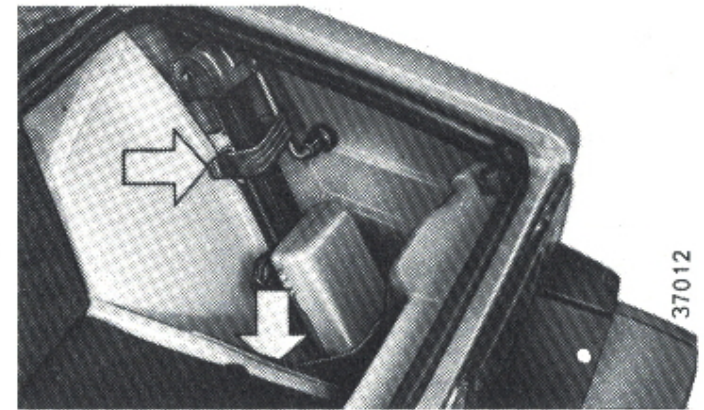
- Do not hesitate to change up whenever possible.
- When driving do not exceed maximum engine torque speed.
- Driving in a queue needs accurate judgement of the speed not only of preceding car but also of the traffic ahead in order to anticipate sudden stops.
- Switch off the engine when the car is stopped in a queue.

WHEEL CHANGING

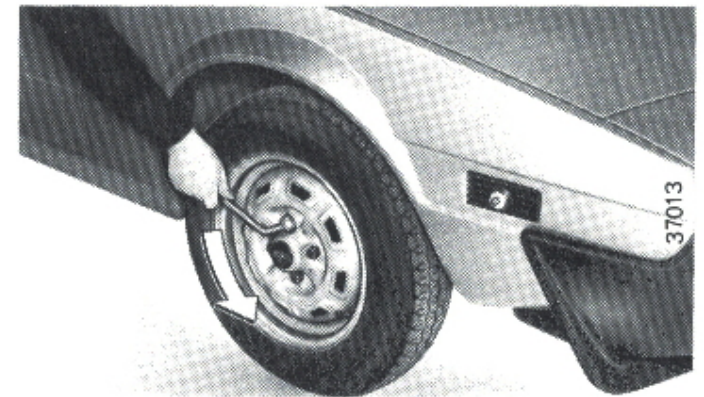
Place the vehicle possibly on level ground and lock rear wheels by the hand brake.



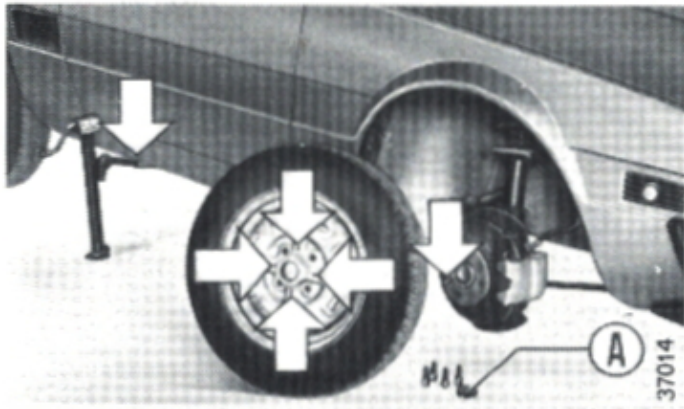
Tip the driver's seat backrest forward, then withdraw self-adhesive panel, remove the wing nut and take out the spare wheel.



Take the jack and the tool box from the rear trunk.



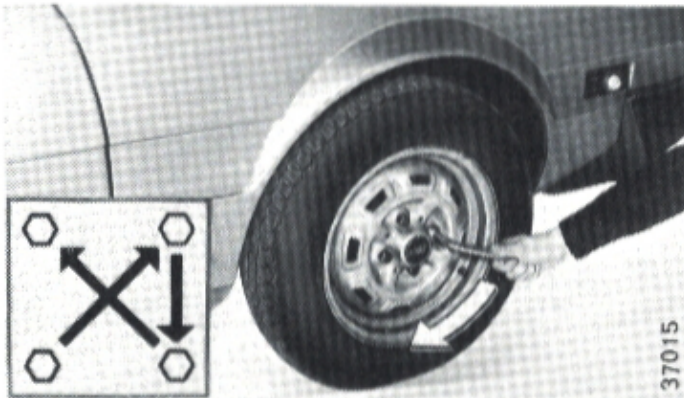
Using the wheel wrench slacken about one turn the mounting bolts.



Place jack nub in bracket under body floor, make sure the ground is sufficiently compact (jack must not sink in during the lifting operation) then jack up until the wheel to be removed clears the ground.

Back out completely the four bolts and remove the wheel.

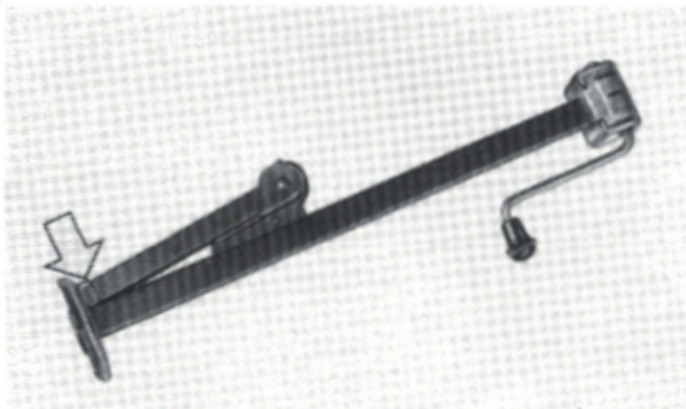
Push out hub cap **A** from the damaged wheel and fit it to the spare wheel.



Mount the spare wheel seeing that the location dowel fits into one of the location holes in wheel disk.

Tighten uniformly the wheel fixing bolts in criss-cross sequence.

Lower the vehicle and remove the jack.

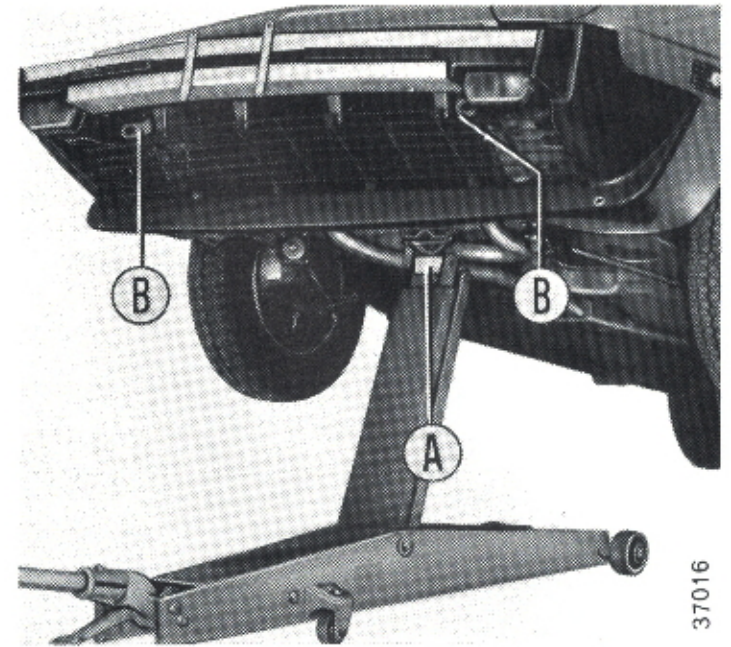


Fully tighten the bolts. Check if the tire pressure of the newly mounted wheel is as specified.

Before stowing away the jack fold back its nub and turn the crank until the nub end locks on jack base. This will prevent rattling noises on the road.

JACKING UP

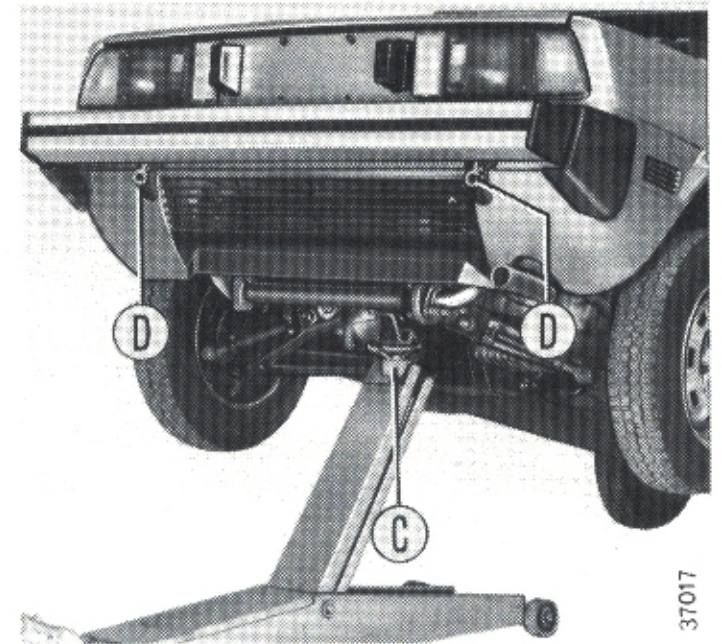
To raise the car with a garage jack, place jack head under front bracket A or rear bracket C.



37016

TOWING

For towing fasten the rope to front brackets B or to rear brackets D by threading through the eyes provided.

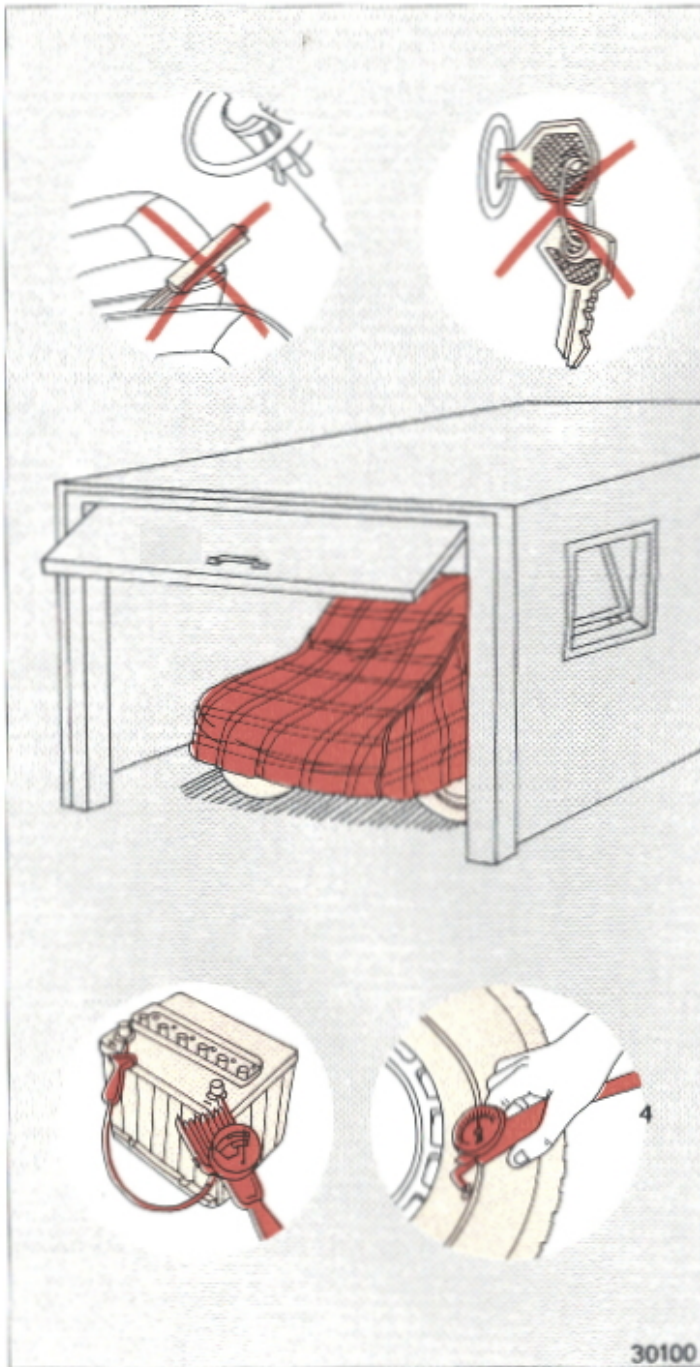


37017

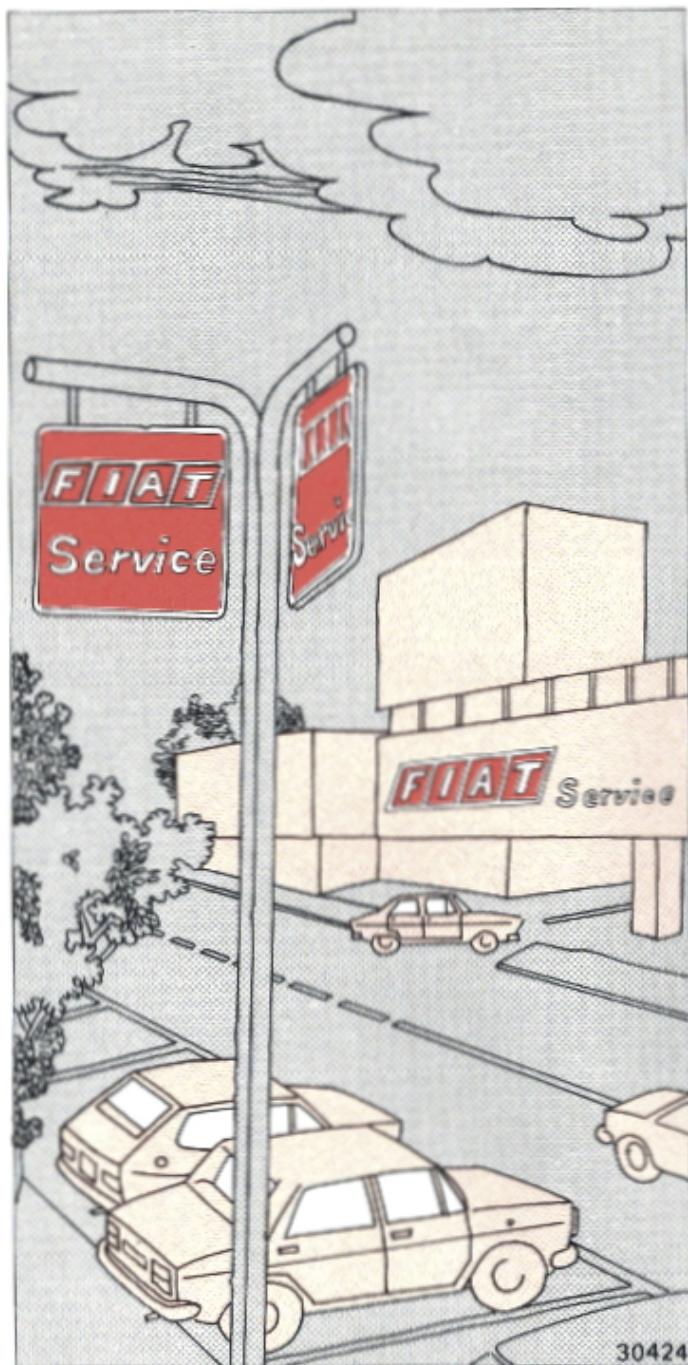
PROTECTION DURING STORAGE

If the car is to remain out of use over long periods :

- Coat the paintwork with a good silicone wax polish and all bright metal parts with a reputable make of car chrome preservative.
- Store the car in a covered, dry and ventilated place.
- Ensure that the hand brake is released.
- Disconnect battery terminals.
- Remove the shield wiper blades and dust with talc.
- Partially open the windows.
- Protect the car using a non-plastics car cover.
- Check the tire inflation pressures every now and then.
- Every six weeks check battery charge condition. Should it be necessary put on the battery on a slow charge for 24 hours.
- Do not empty the cooling system.



**MAINTENANCE
AND
DO-IT-YOURSELF
SERVICING**



SERVICE

Every new car is issued with a **Free Service Coupon** which must be carried out on completion of the first 1 000 to 1 500 km, in accordance with the conditions laid down in the "Warranty and Service Book".

Free Service Operations: Tighten cylinder head • Check valve clearance. Extra: adjust • Check and adjust carburetor idling speeds and CO concentration • Check and adjust clutch pedal travel • Check and adjust hand brake lever travel • Check and correct tire pressure • Check and adjust front wheel toe-in • Check rear wheel toe-in. Extra: adjust • Tighten all nuts and bolts fixing mechanical components to the body • Check and adjust distributor breaker points gap; check and reset static advance and lubricate distributor shaft • Check and adjust headlight alignment.

Lubricate door, hood and trunk lid closures • Top up transmission oil, axle oil, coolant, brake fluid, clutch fluid, battery electrolyte • Renew engine oil (oil to be charged to the Owner).

Final Test

Regular maintenance is a major factor in ensuring a long life to your car, while at the same time providing best performance and trouble-free operation.

As a help in achieving this purpose, Fiat have developed a plan of inspection and service operations known as the "Programmed Maintenance Plan".

This plan is included in the "Warranty and Service Book".

Any repairs which may be disclosed as being required, as a result of inspections and checks, will be carried out only with the Owner's approval.

THE PROGRAMMED MAINTENANCE PLAN SERVICE IS CARRIED OUT BY THE FIAT SERVICE NETWORK.

ROUTINE MAINTENANCE

Some components subject to wear and some fluids essential to vehicle operation need attention at an interim period with respect to the mileage recommended in the "Programmed Maintenance Plan".

Every 500 km

Check engine oil level, brake and clutch fluid level and coolant level

Every Month

Check tire inflation pressure

Every 2 500 km

Check battery electrolyte level

Every 5 000 km

Check ball joint boots of steering linkage and track control arms

Check tire wear

Check brake pad wear

Every 10 000 km

Renew engine oil and filter

Renew air cleaner element

Renew spark plugs

Every 60 000 km or every two years

Change **Parafu 11** mixture.

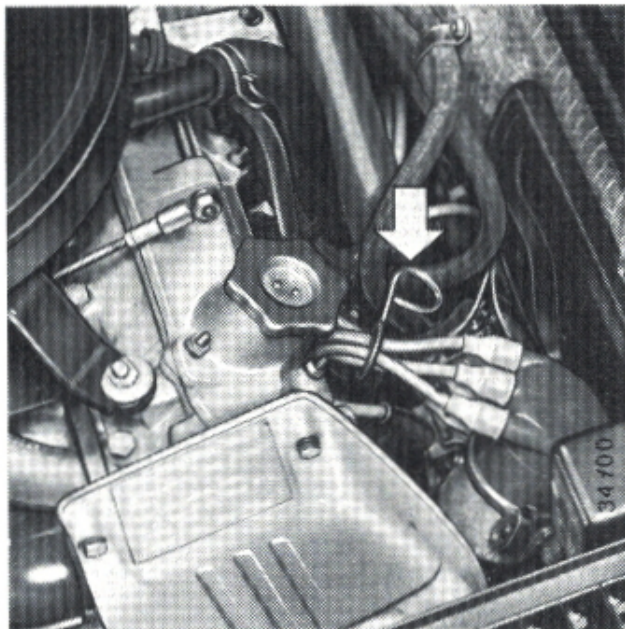
ENGINE LUBRICATION

Oil Level Checking

Check level when the engine is cold and the car standing on level surface.

The correct level is between "Min" and "Max" marks on dipstick. If necessary, top up using the specified grade of oil.

When refitting the dipstick press it fully home in the crankcase and rotate slightly in either direction.

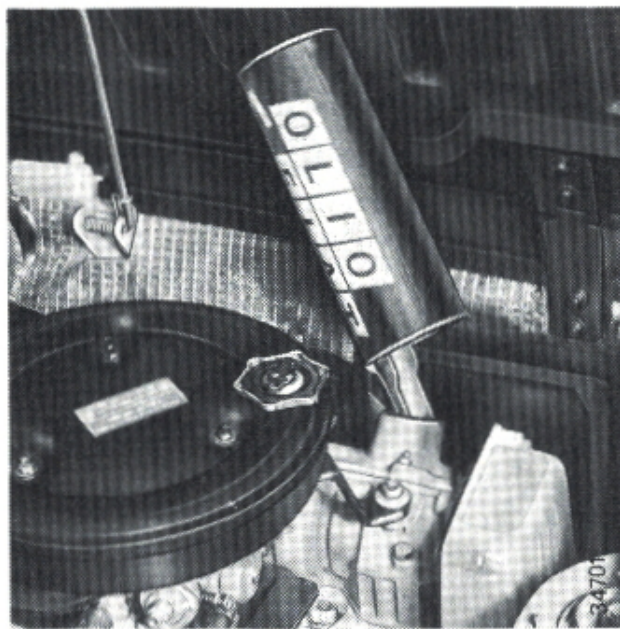


Engine Oil Changing

Change the oil when the engine is warm.

On a new engine the oil should be changed at the mileage stated in the Free Service Coupon.

Oil changing also depends on the type of fluid used (single-grade or multi-grade) and prevailing climatic temperature (see "FILL-UP DATA" table).



Oil Filter Renewing

While changing the oil, also renew the filter. To do this unscrew the filter from the base and discard.

When fitting a replacement smear the rubber seal with engine oil. Screw on to the base until a slight resistance is felt: then tighten a further 3/4 of a turn by hand only.

Oil changing and filter renewing should be done at most every 5000 km in case of habitual stop/start driving or when consistently driving under dusty conditions.

VALVE GEAR

Checking Valve Clearance

The correct valve clearance, with engine cold is 0,40 mm for inlet valves and 0,45 mm for exhaust valves.

Valve clearance checking is an operation included in the Free Service Coupon.

Valve Timing

This is a workshop operation which should be entrusted to the FIAT Service Network.

Timing Belt

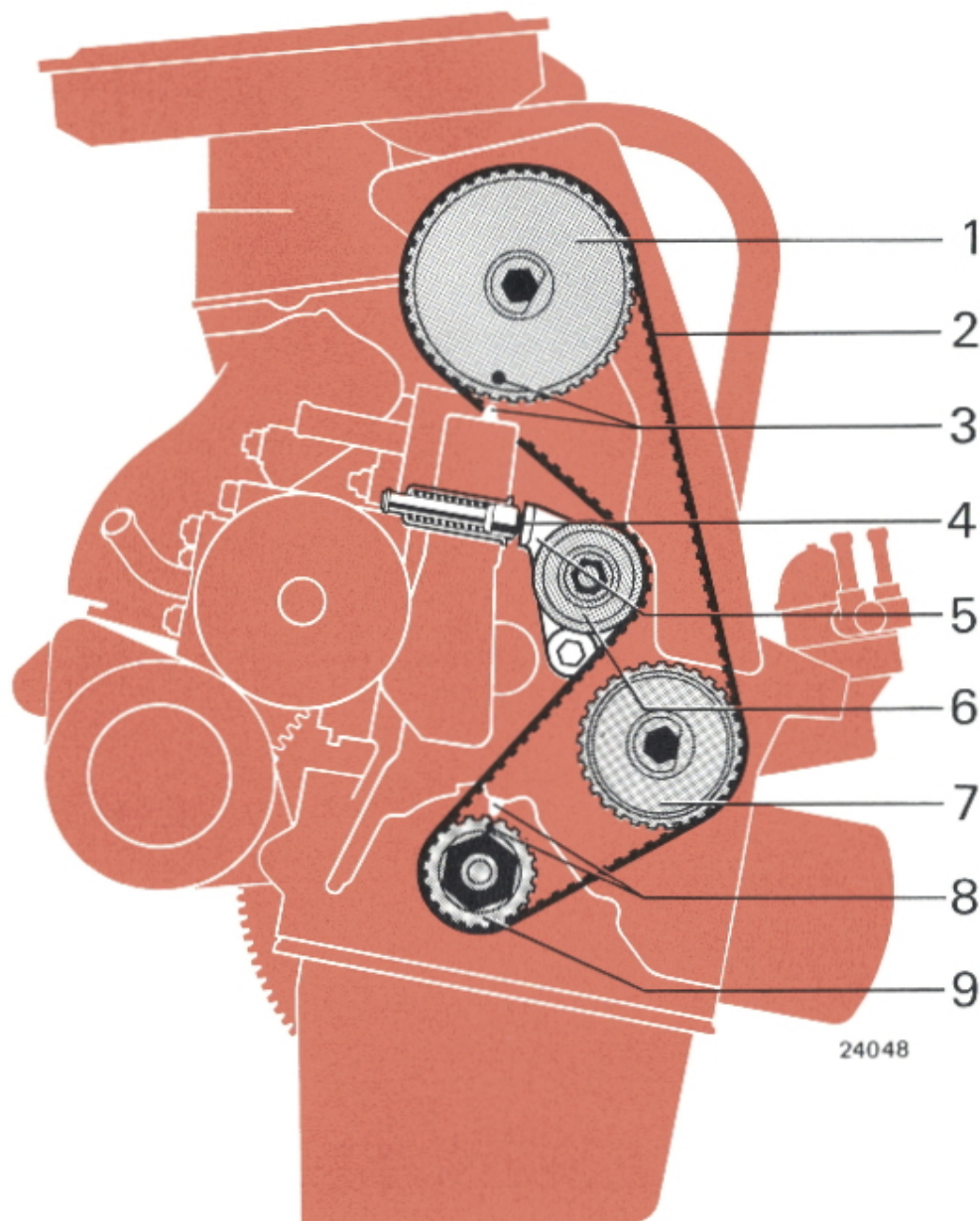
Following belt removal or slackening, always renew the belt.

Under no circumstances must the belt tension be taken up. Belt renewal shall be entrusted to the FIAT Service Network.

Note: To renew the belt simply slacken the idler pulley retaining nut.

Do not interfere with the tensioner pivot screw immediately below. After renewing the belt fully retighten the nut.

1 Camshaft drive pulley - **2** Timing belt - **3** Camshaft timing pointers - **4** Tensioner plunger - **5** Roller carrier - **6** Tensioner roller - **7** Oil pump/fuel pump drive pulley - **8** Crankshaft timing pointer - **9** Crankshaft drive pulley



IGNITION SYSTEM

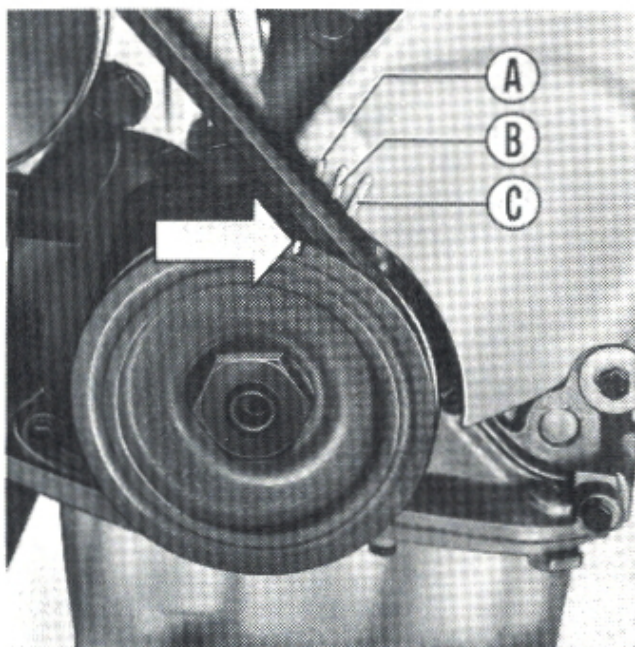
Ignition Timing — Checking

In case of distributor removal or camshaft dismantling, have the ignition timing checked by an authorized FIAT Dealer.

Ignition timing check is an operation included in the Free Service Coupon.

Static advance

A = 10 deg., **B** = 5 deg., **C** = T.D.C.



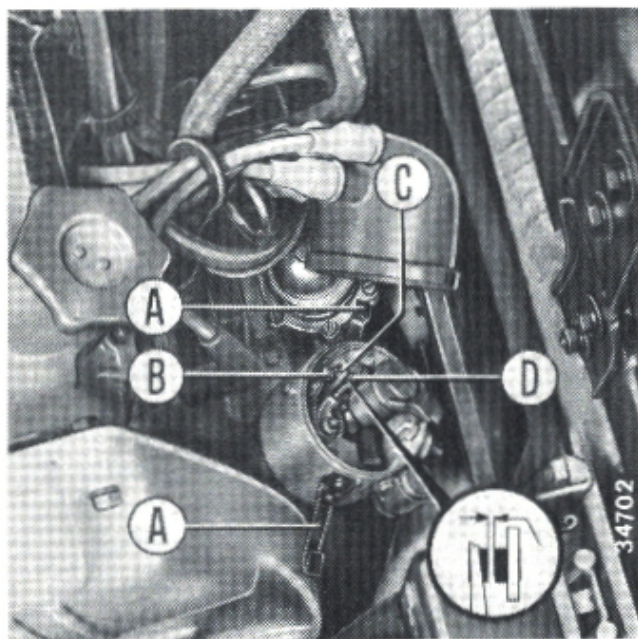
Distributor Servicing

Free two cap retainers **A**, withdraw the cap and check contacts **D**.

If soiled, the contacts should be carefully cleaned using a lint-free, petrol-moistened cloth.

Check the contact point gap. For the correct clearance see page 54.

To adjust the gap slacken screw **B**, insert a screwdriver in slot **C** and turn the fixed contact plate as necessary. Retighten the screw.



Contact point gap check is an operation included in the Free Service Coupon.

Whenever the point gap is reset also adjust the slow running settings. When worn or damaged the contact points should be renewed.

Spark Plugs Servicing and Renewing

For sustained engine performance the plugs should be carefully cleaned, preferably by sand blasting, to remove all deposits accumulated at the base of the center electrode.

Also check the gap. For the correct electrode gap see page 55.

If necessary, adjust through the side electrode and not the centre electrode, otherwise insulator damage might result.

When renewing the plugs make sure that the new plugs are of the correct type.

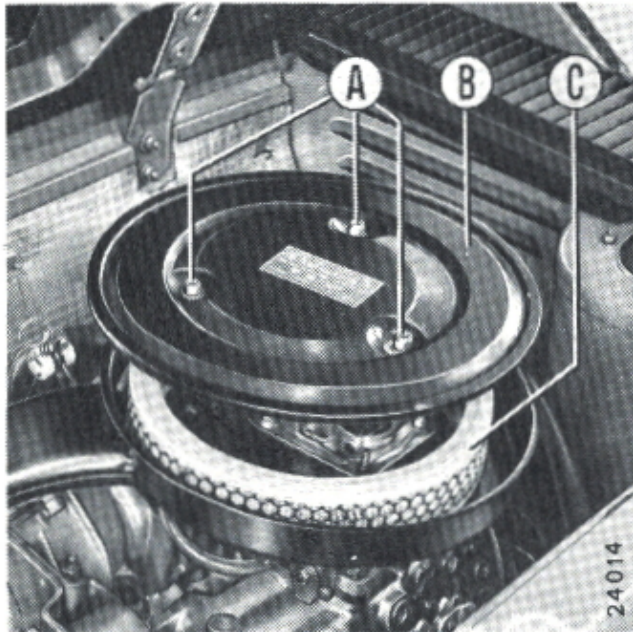
In this connection remember that the use of plugs of incorrect thermal rating is liable to result in engine trouble.

FUEL SYSTEM

Renewing Air Cleaner Element

Unscrew nuts **A**, remove cover **B** and take out element **C**.

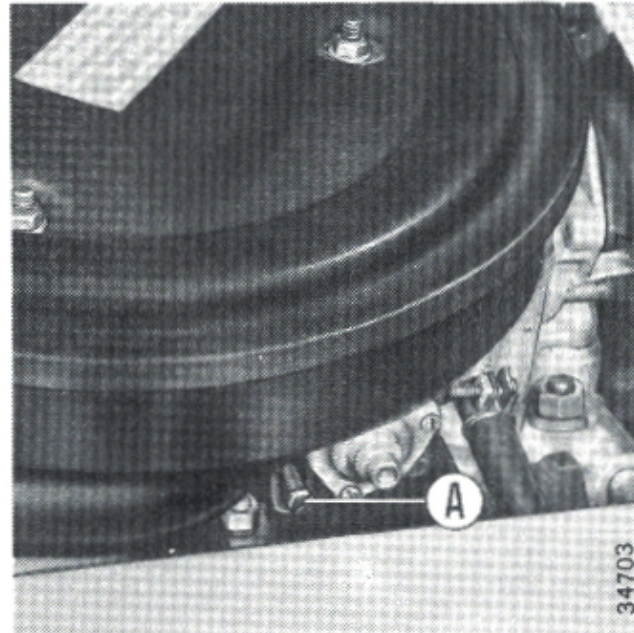
When consistently driving under dusty conditions renew the element every 5 000 at most.



Carburetor

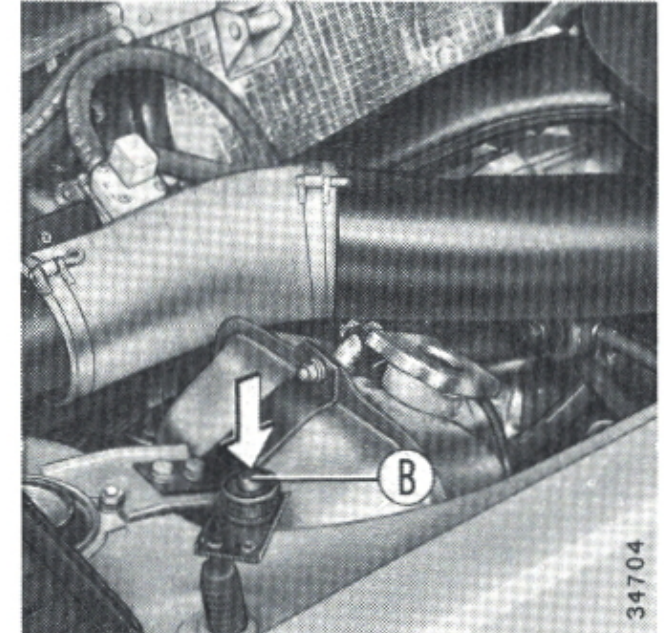
If slow running speed cannot be satisfactorily adjusted through throttle stop screw **A**, contact the Service Network which will adjust speed through the volume adjustment screw.

Have also the fast idle speed adjusted by the Fiat Service Network should an abnormal braking effect be experienced with 3rd or 4th gear engaged.



To check fast idle speed, depress button **B** in engine compartment.

For a correct engine tune-up see also the Vehicle Emission Control Information Tag illustrated on page 53.

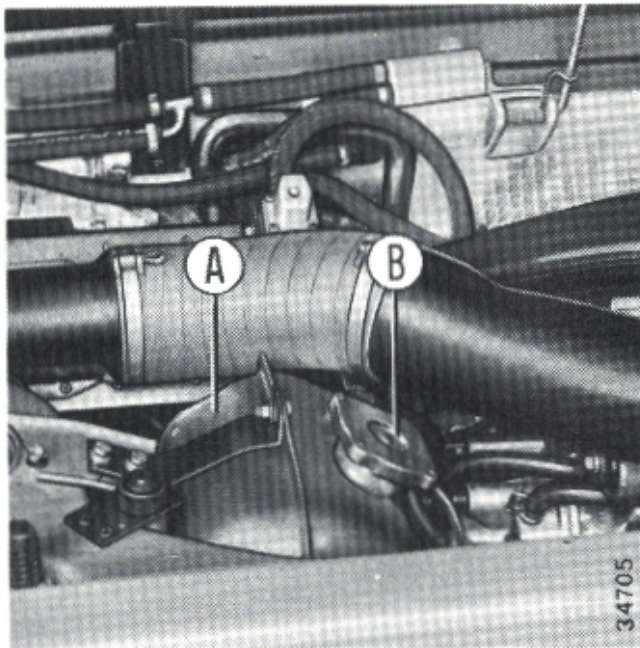


COOLING SYSTEM

Coolant Level — Checking

The coolant level in expansion tank **A** should be checked with the engine cold. Top up, if necessary, using soft or rain water. The correct level is 2/3 full.

Remember that when the engine is hot the level tends to increase, sometimes quite considerably, especially after stopping.

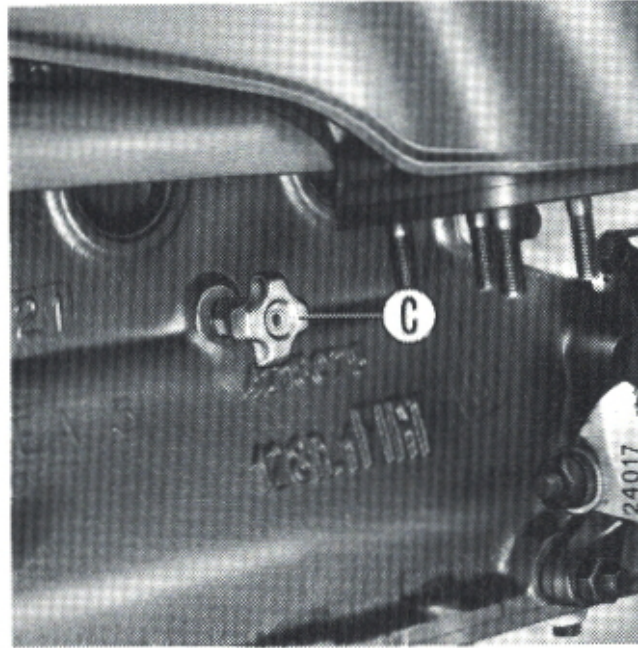


Important

Do not remove tank filler cap **B** if the engine is hot, as the escaping steam could cause skin injury.

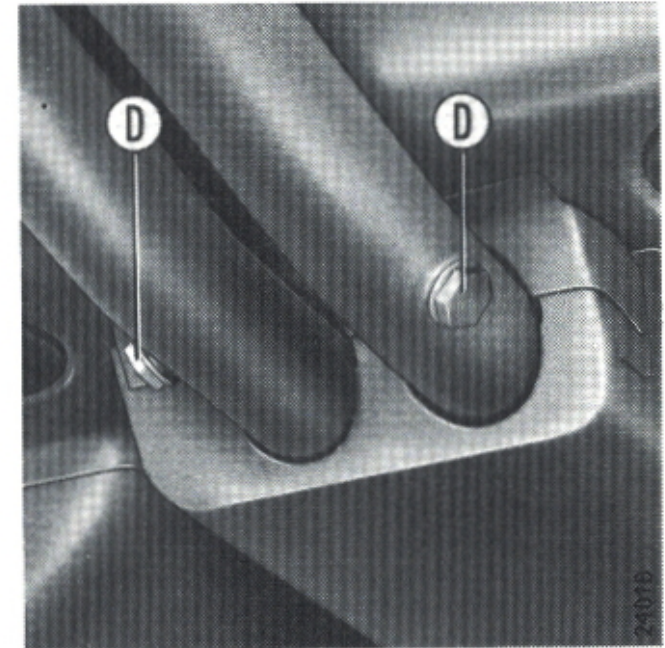
Moreover, do not top up a hot engine with cold water, but allow to cool down before pouring.

If unusually frequent topping up is found to be necessary, contact the Service Network.



Coolant Changing

To drain the system slide lever **B** (see page 16) fully upwards, remove expansion tank cap **B**, open valve **C**, take off two drain plugs **D** and remove rubber capped bleed screw **E** (see over page) situated in the front trunk. To fill the system refit plugs **D**, close valve **C**, pour the coolant slowly into tank **A** until the coolant issues from **E**, refit cap **B** and bleed screw **E**, start the engine and accelerate to bring about water recirculation in the radiator. Switch off the engine and bleed the system through **E**.



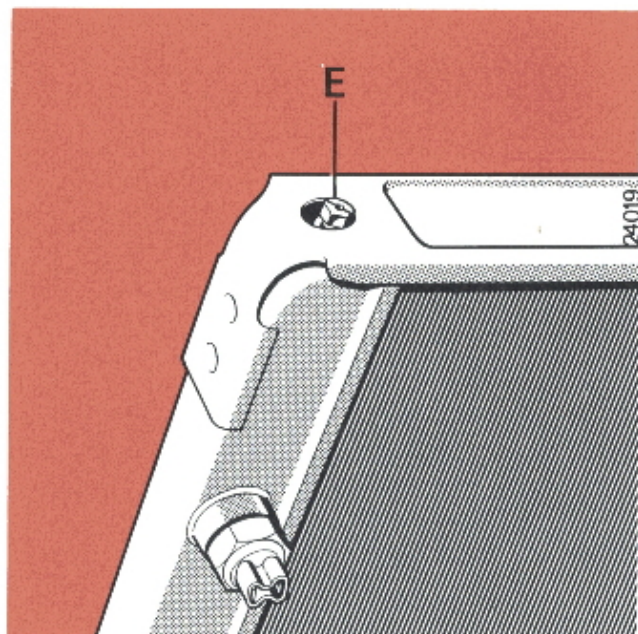
When the coolant is free from air bubbles retighten the screw. Finally, check the coolant level and top up as necessary.

The cooling system should be flushed twice a year, especially if hard water is used to fill the system.

Always flush the system before using any anti-freeze mixture.

Anti-freeze

The cooling system is filled with a solution of water and **Paraflu 11**



fluid with a 50% concentration, which allows a drive-away temperature of -35°C .

Paraflu 11 incorporates oxidation, corrosion, foam and scale control properties and needs renewing **after 60 000 km or every two years**.

Moreover, the use of tap water does not affect the system.

Before refilling the cooling system with anti-freeze solution check all coolant carrying connections and joints for tightness, as the antifreeze has a very searching effect.

Plain water may be added only in emergencies (sudden heavy coolant losses). After filling run the engine for a while so as to favor a thorough mixing of the fluid in the system. As soon as possible contact the nearest Fiat Dealer for a cooling system check.

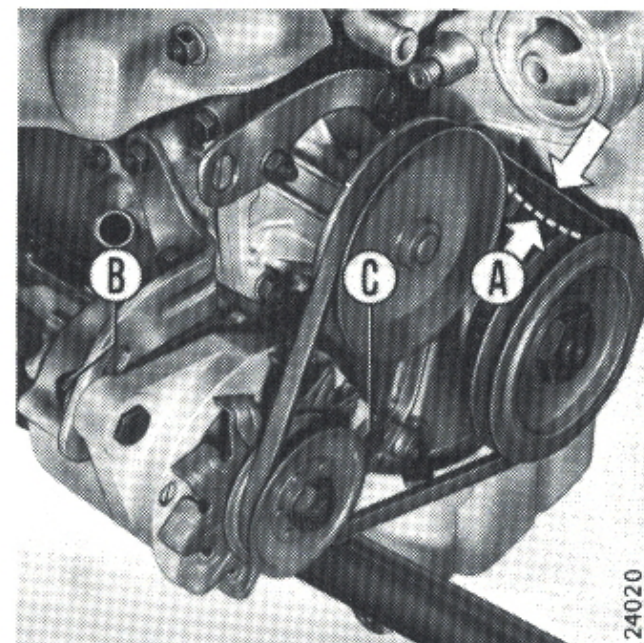
Alternator and Water Pump Belt Tension - Checking and Adjusting

Have these operations carried out, preferably, by an authorized Fiat Dealer.

When the belt is correctly tensioned it should be possible to depress the belt 10 to 15 mm in **A** by applying a 98 N (10 kg) load.

To adjust the belt tension slacken retaining nut **B** and pivot **C**, swing the alternator outwards and retighten.

Over-tensioning could result in premature bearing wear.

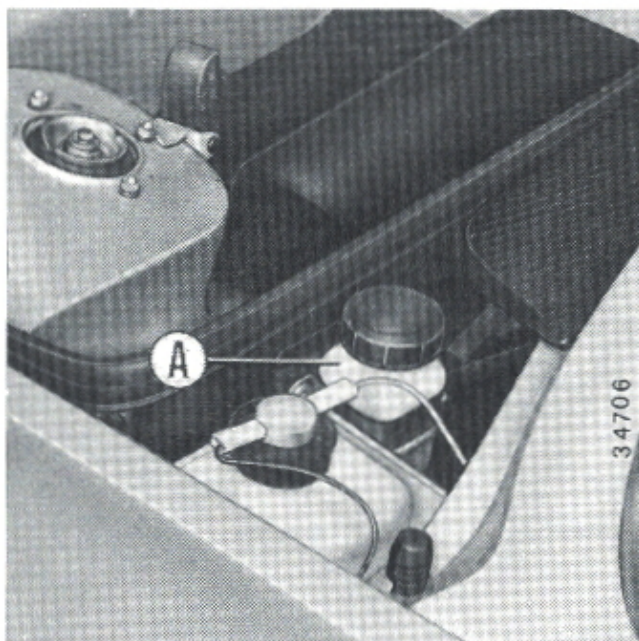


POWER TRAIN

Clutch Fluid Level Checking

Check the fluid level and top up, if necessary, using **DOT 3** or other approved clutch fluid (see "FILL-UP DATA" table).

Inspection can be carried out without removing cap **A**.



Clutch fluid topping up is an operation included in the Free Service Coupon.

Clutch Pedal Free Travel — Checking

Contact the FIAT Service Network for this operation. The correct clutch pedal free travel should be 30 mm approximately.

After several adjustments facings may need renewing as a result of wear. Clutch pedal free travel checking is an operation included in the Free Service Coupon.

When clutch hydraulic control system bleeding is needed turn to your nearest Dealer.

Constant Velocity Joints — Checking and Lubricating

Whenever underbody inspection is carried out, have the rubber boots checked for wear and renewed, if necessary, by the FIAT Service Network.

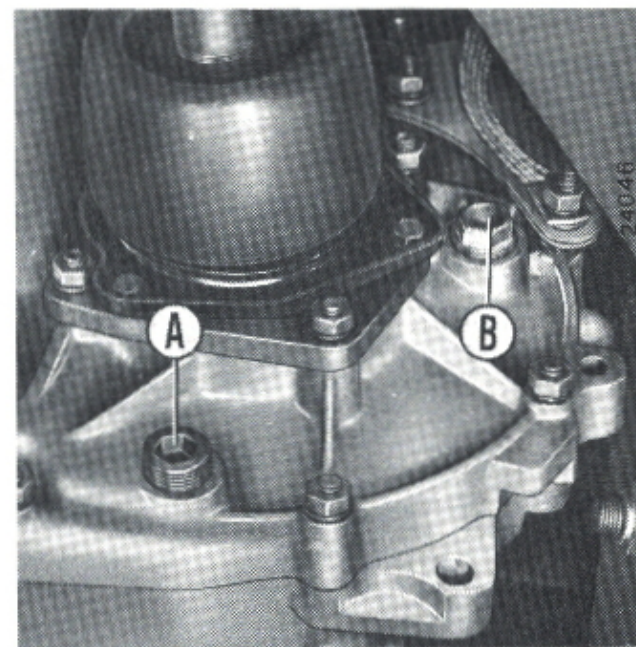
Wheel-end joints should be lubricated using **grassofiat MRM 2**.

Transaxle Oil Level — Checking and Changing

The correct level is up to the lower edge of filler **B**.

Transaxle oil level checking is an operation included in the Free Service Coupon.

To change the oil, remove plug **A**, allow to drain completely and refit the plug before refilling with fresh oil.



BRAKES

The service brakes are self-adjusting. Independent front and rear brake circuits are provided to ensure effective braking even in cases of partial failure. If the pedal free travel is found to be excessive, or upon applying the brakes the car tends to pull to one side or the pedal feels spongy, contact the FIAT Service Network.

Brake Pad Wear Checking

The minimum safe pad thickness is 1,5 mm.

If further attention is needed contact the FIAT Service Network.

When the underside of the car is oil sprayed the brakes should be protected as much as possible.

Brake Fluid Level — Checking and Topping up

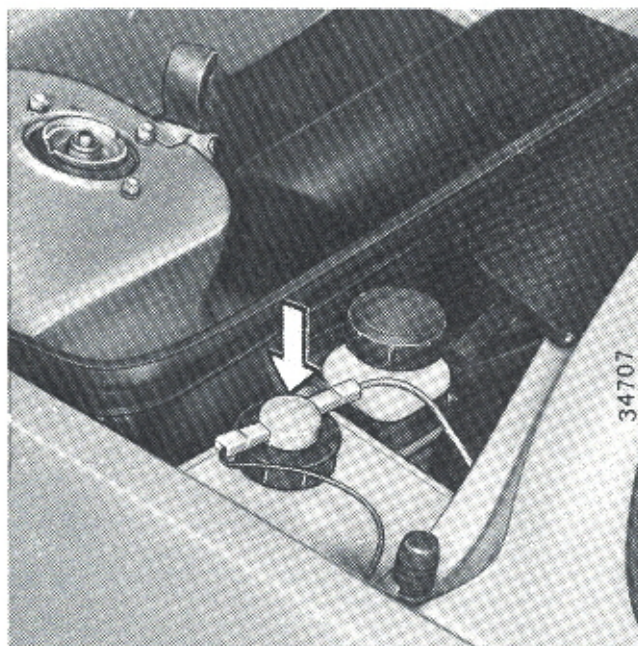
Check the fluid level in the reservoirs and top up, if necessary, using **DOT 3**

or other approved brake fluid (see "FILL-UP DATA" table).

Inspection can be carried out without removing the cap.

Do not use mineral fluids, otherwise the rubber seals will be damaged beyond repair.

Brake fluid level checking and topping up is an operation included in the Free Service Coupon.

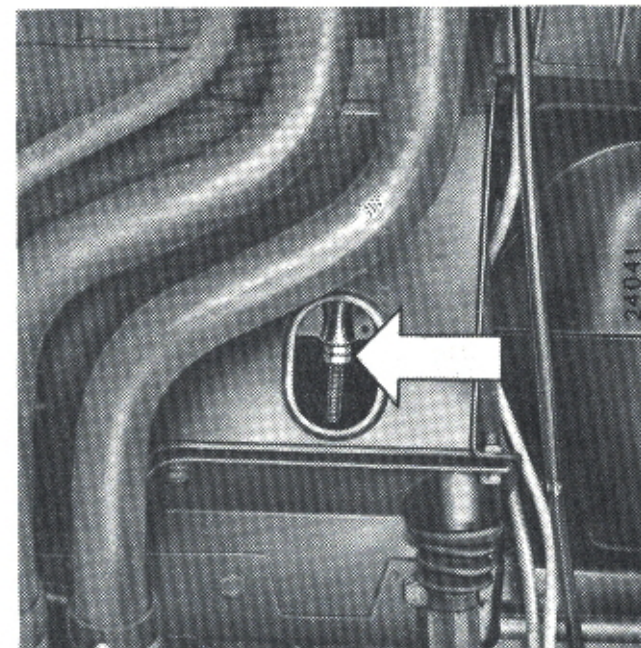


Checking Hand Brake Lever Travel

Whenever the lever travel is found to be excessive, get your authorized FIAT Dealer to adjust the cable tensioner. Access to the cable tensioner is gained after removing the plug from the underside of the car (see illustration below).

Travel is correct when pulling up the lever three notches the rear wheels are locked.

Hand brake lever travel checking is an operation included in the Free Service Coupon.



Bleeding Hydraulic System

Bleeding (expelling the air) should only be necessary when any part of the hydraulic system has been disconnected or emptied. To bleed the brakes use the bleed screw provided on each wheel, ensuring that the fluid level in the reservoir is kept topped up.

Before fitting new boots pack with **grassofiat MR 3** or other approved grease.

Also check for joint wear and renew if excessive play is detected.

INEFFICIENT JOINTS CAN IMPAIR DRIVING SAFETY.

Wheel Bolts

Check all the wheel securing bolts for tightness.

SUSPENSIONS AND STEERING

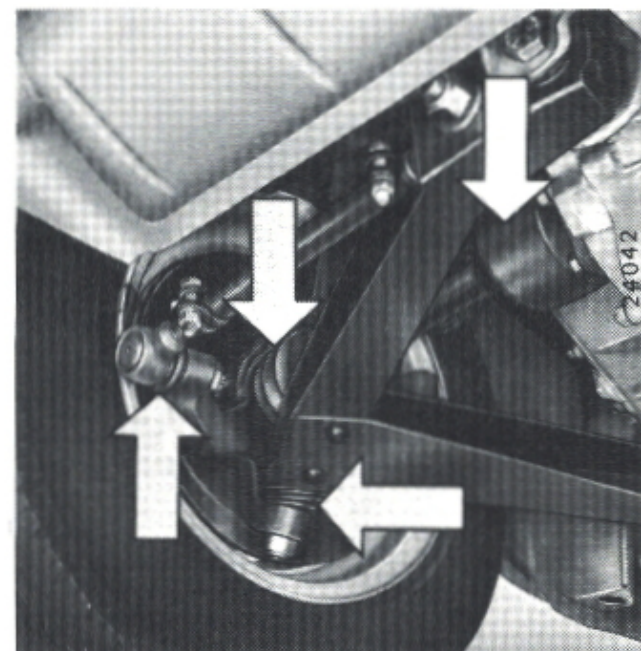
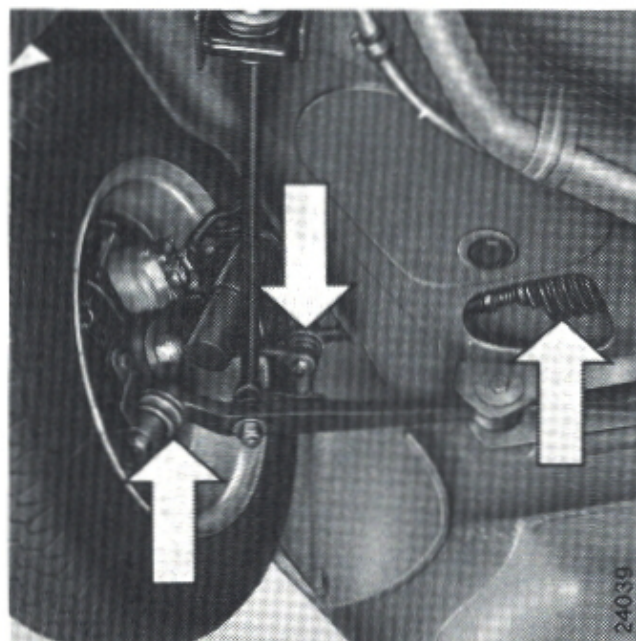
Hydraulic Dampers

Always contact the FIAT Service Network in case of inefficiency.

Checking Ball Joints and Rack Bellows

This is a job best left to your authorised FIAT Dealer.

When carrying out underbody inspection check that the ball joint boots and the rack bellows are in good conditions. If damaged, they should be renewed without hesitation.



Wheel Alignment

Camber should be checked at rim and toe-in over rims, with the car laden to the equivalent of 2 persons plus 20 kg (see page 57).

As highly specialised equipment is required for checking the wheel alignment, this is a job best left to your FIAT Dealer.

Wheel alignment is an operation included in the Free Service Coupon.

Checking Tire Pressures

It is important to maintain the tire pressures (including the spare) at the correct figures given on page 63.

Check the inflation pressures when the tires are cold, ensuring that the pressure is exactly the same on both tires of the same axle.

Do not reduce the tire pressures in hot climates or during the warm season, otherwise tire overheating will result. Tire pressures checking is an operation included in the Free Service Coupon.

Checking Tire Wear

The minimum safe tread depth is 1 mm. If your tires are provided with tread wear indicators, renew as soon as the wear indications are visible.

ELECTRICAL SYSTEM

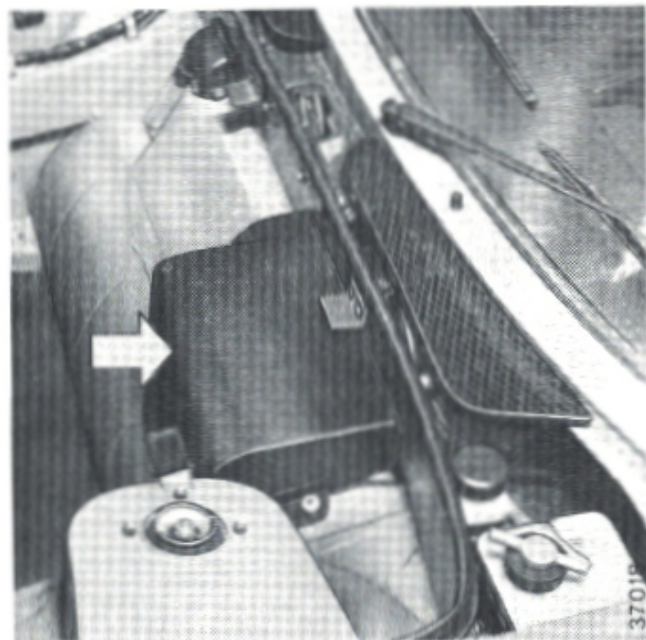
Battery

The battery is located in the front trunk.

Maintenance

Check the electrolyte level with a cold battery and top up, if necessary, using distilled water.

The level should never be allowed to fall below mark **A**. To top up remove the cover, pour in well **B** (not through vents **C**) until the liquid issues from holes **D** and refit the cover.



In hot climates check the electrolyte level more frequently than recommended.

Ensure that the battery terminals are clean and tight.

Note that the shape of well **B** can vary according to battery manufacturer.

Electrolyte level checking is an operation included in the FCS.

The battery does not normally require recharging by means of an external source.

Never drive the car nor recharge the battery with the cover removed.

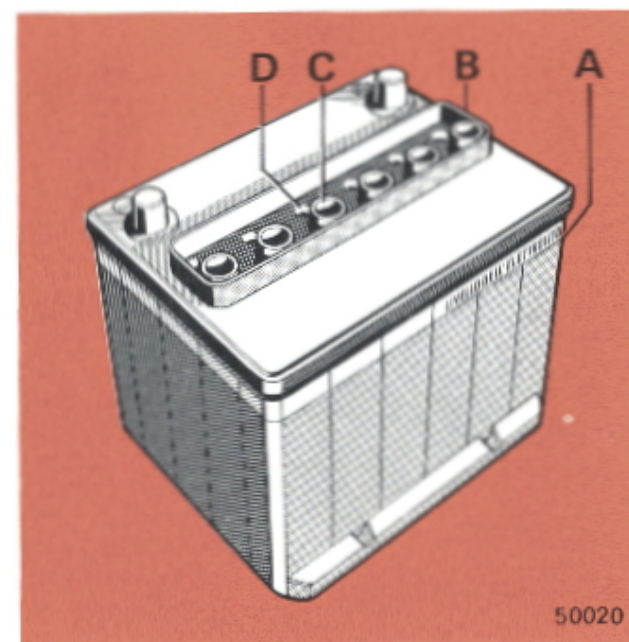
Remember to have the battery checked for efficiency by your FIAT Dealer at the mileage recommended in the Programmed Maintenance Plan.

Warning

As your car incorporates electronic devices, never run the engine with a disconnected or wrongly connected (i.e. positive earth) battery, otherwise serious damage will result.

Concealed Headlights

For headlight manual operation see page 19.



BULB RENEWAL

Headlight

To remove

Take off screws **A** and withdraw carrier **B**.

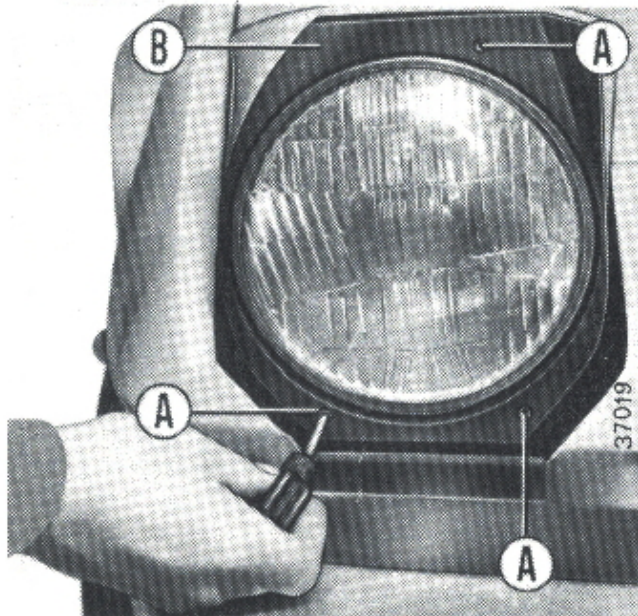
Slacken screws **I**, rotate rim **C** counter-clockwise until lugs **D** are clear and withdraw.

Take out lamp unit **E**.

Disconnect terminal **L**.

Remove rubber seal **H**.

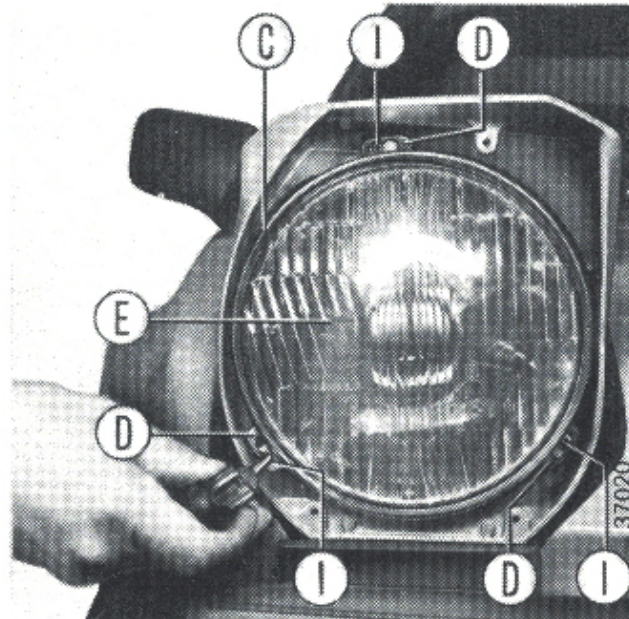
Release the ends of clip **O** from slots **M** and take out bulb **N**.



To Renew

Insert the new bulb (45/40 W) ensuring that the pegs in the bulb plate fit into the associated holes in the lamp unit.

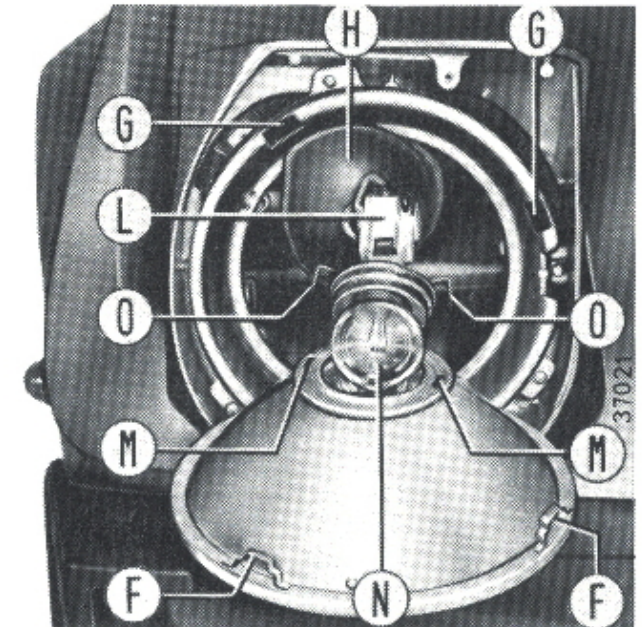
Refit clip **O**, lock the ends into slots **M**, reposition rubber seal **H** and reconnect terminal **L**.



Reposition lamp unit **E** in the housing inserting registers **F** (three) in slots **G**.

Refit rim **C** over screws **I** sliding through slots **D** and turn clockwise as far as it will go.

Retighten screws **I**, refit carrier **B** and retighten screws **A**.

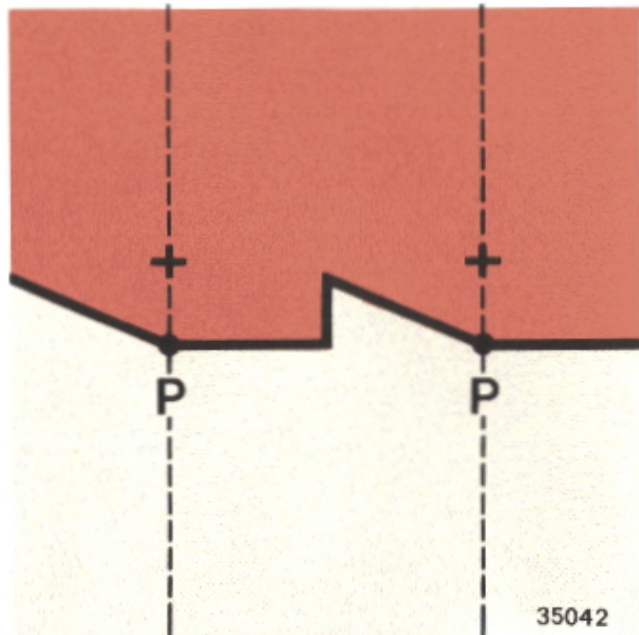


Headlight Alignment

When headlight alignment becomes necessary it is advised to consult an authorized FIAT Dealer.

However, owners wishing to perform this operation may adopt the following procedure:—

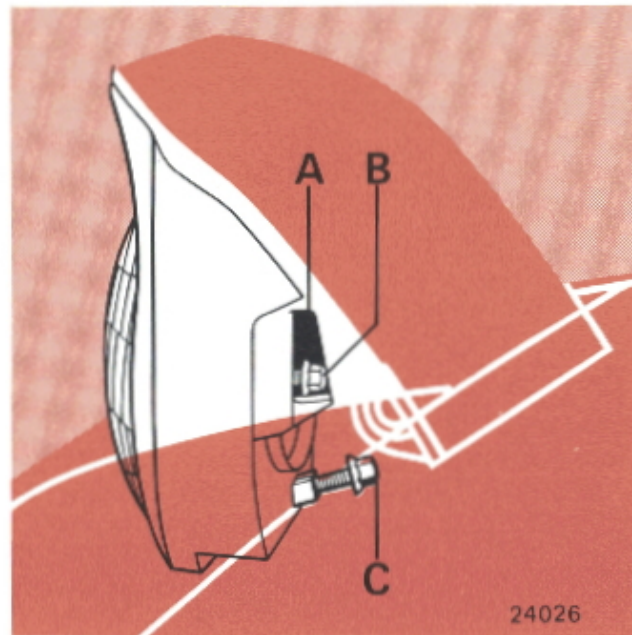
- Check that the tire inflation pressures are as prescribed and place the unladen car on a level surface in front of a bright screen or wall.
- Bring the headlights to the raised position. Draw two crosses on the



screen corresponding to the headlamp center.

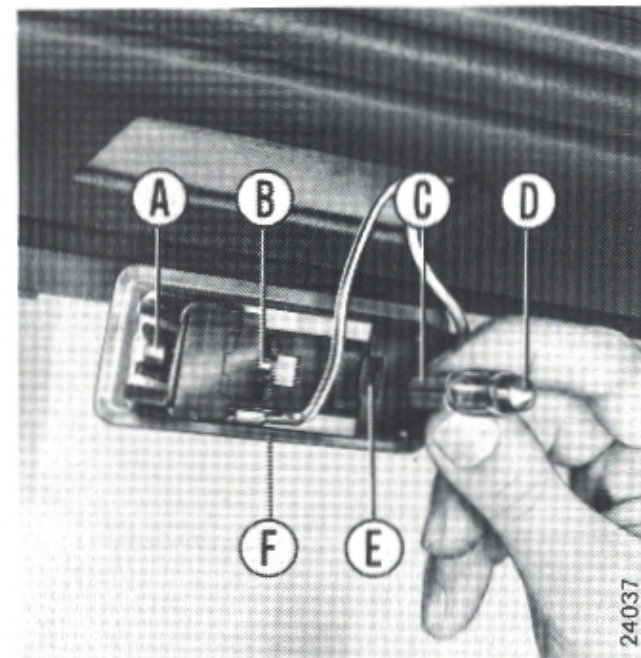
- Back the car 5 meters from the screen and switch on the low beams. Reference points **P-P** should lie 70 mm below the associated cross marks on the screen.
- For horizontal adjustment turn screw **B** through slot **A**. For vertical adjustment turn screw **C** through each headlight drive motor recess (see page 19).

Headlight alignment is an operation included in the Free Service Coupon.



Courtesy Light

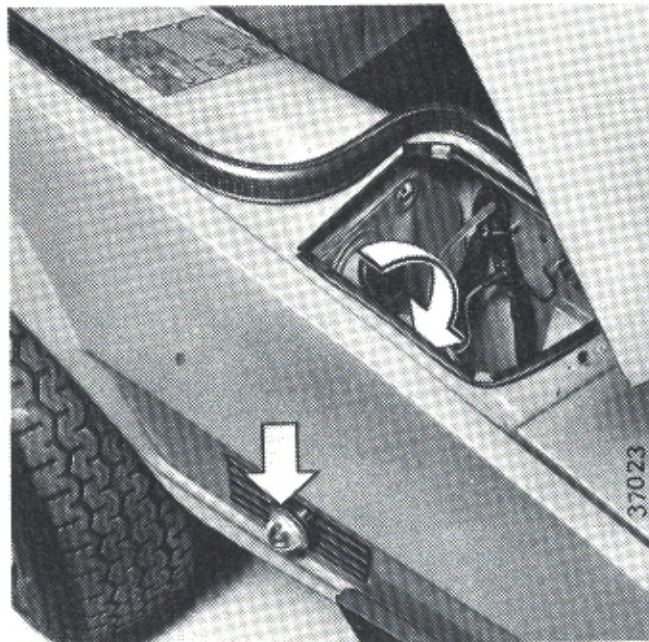
To remove festoon bulb **D** (5 W) release body **F** held in position by two retainers **A**, slide the bulb towards terminal **B** to free bulb holder **C** from housing **E** and withdraw the bulb.



Repeater Lamps

The bulb cannot be replaced separately. In case of failure change the complete unit.

To remove, free the spring retainers from inside each headlight motor housing and pull unit from the outside.



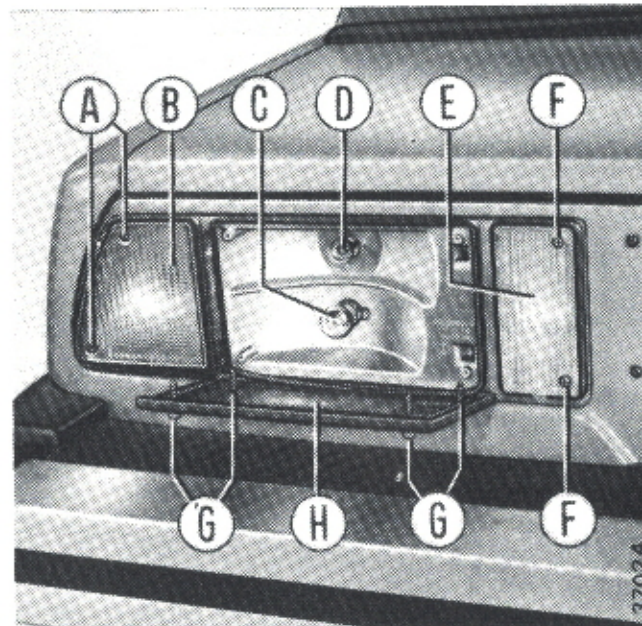
Tail, Stop, Turn Signal and Backup Lamp

For access to the turn signal bulb remove two screws **A** and lens **B**.

To reach the tail light bulb **D** and stop light bulb **C** remove four screws **G** and lens **H**.

Access to the backup light bulb is gained after removing two screws **F** and lens **E**.

All these bulbs are of the bayonet-coupled type.



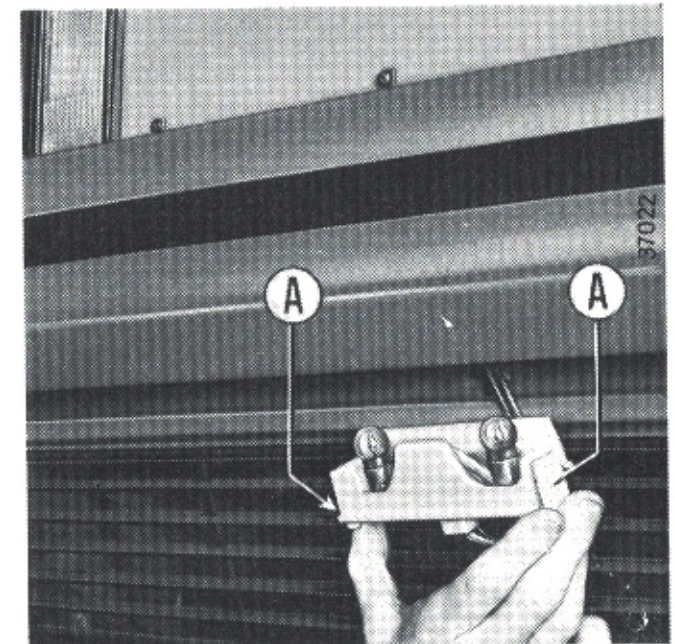
To refit lenses **B** and **E** reposition their side lugs in the associated recesses in lens **H** before retightening the screws.

License Plate Lamp

The bulb holder is fitted to the bumper. To remove press retainers **A** inwards. To refit the holder, press it upwards.

Bayonet-coupled bulbs (5 W).

Note: Where not described the bulb removal procedure is self explanatory. Always ensure that the lens seals are correctly refitted on reassembly.



Fuses

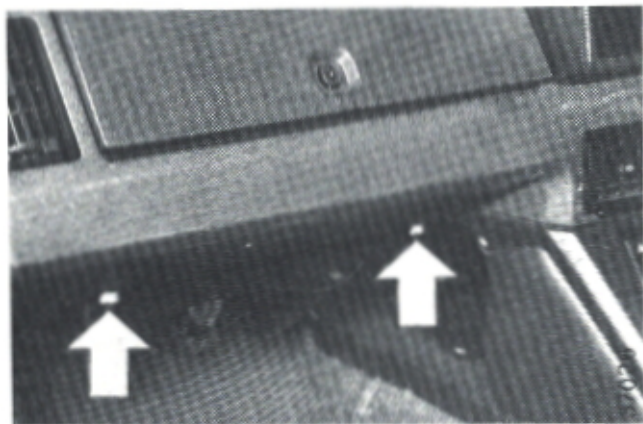
The fuse box is located underdash.

To gain access to the fuses rotate the knobs through a quarter of a turn.

The fuse box cover is of the snap-on type and carries identification references.

Before replacing a blown fuse trace the cause and remedy accordingly.

Unprotected circuits - Alternator, ignition, starting, battery charge indicator, engine fan motor relay, instrument cluster lights, parking and tail lights indicator.

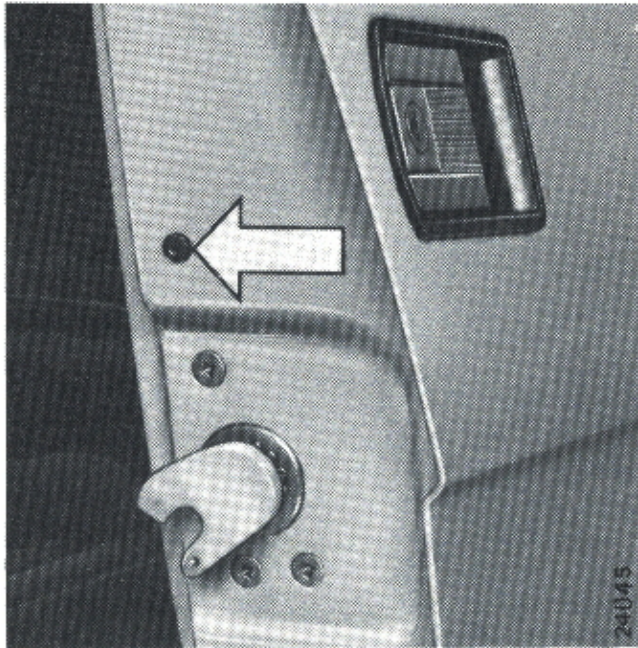


- A (8 A) Turn signal and indicator, stop lamps, heater fan, back window demister relay coil, heater controls light, ideogram illumination optical fiber light source, engine oil pressure indicator, engine coolant temperature gage, engine oil pressure gage, handbrake and low brake fluid level indicators, fuel reserve indicator, tachometer, fuel gage, digital clock lighting, shield wiper motor, shield washer pump, back up lamp
 - B (8 A) Carburetor cooling fan and relay
 - C (8 A) L.H. headlight high beam, high beams indicator, supplementary L.H. headlight
 - D (8 A) R.H. headlight high beam, supplementary R.H. headlight
 - E (8 A) L.H. headlight low beam
 - F (8 A) R.H. headlight low beam
 - G (8 A) Front L.H. parking light, R.H. rear parking light and indicator, cigar lighter light, L.H. licence plate light
 - H (8 A) Digital clock dimmed lighting, front R.H. parking light, L.H. rear parking light, R.H. licence plate light
 - I (16 A) R.H. headlight motor
 - L (16 A) L.H. headlight motor
 - M (16 A) Back window demister and indicator, hazard warning system and indicator
 - N (16 A) Horn and relay, radiator fan
 - O (16 A) Spare
 - P (16 A) Spare
 - Q (3 A) Concealed headlight control relay coil (closing)
 - R (3 A) Concealed headlight control relay coil (opening)
- In-line fuse**
- S (8 A) Cigar lighter, digital clock, courtesy light, radio aerial motor.

GENERAL

Lubricate the following as necessary : —

- Door lock cylinders using **powdered graphite**.
- Door hinges, locks (through adjacent plastics plugged hole) check straps, and seat squab pivots, using **engine oil**.
- Hood and trunk catches with **petroleum jelly**.
- Seat runners with **Grassfiat JOTA 1** or other approved grease.

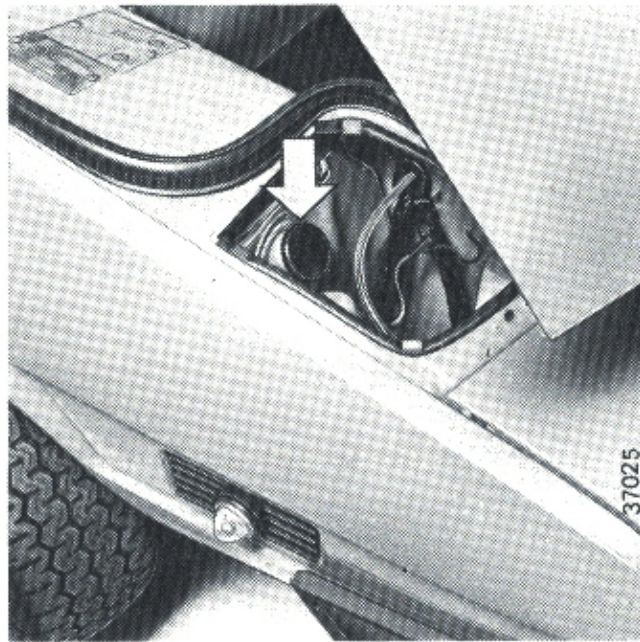


Have the exhaust system inspected for looseness and ensure that the pipe retaining straps are in position.

Check for leaking seals, rubber sleeves, plugs, etc., and ensure that all pipe connections are adequately tight.

Windshield Washer

Check water level in reservoir. The container is stowed in the left-hand headlight motor recess.



If the nozzles fail to operate clean the orifices, using a pin, and the gauze filter on the container end of the suction hose.

Should nozzle adjustment be necessary, turn the plastic nozzle body with a screwdriver, slacken the nozzle holder nuts situated on either side of the nozzle body, turn the nozzle holders until the jets hit the shield at the top of the swept area and retighten the nuts.

Windshield Wipers

To remove a blade swing the wiper arm clear of the shield, release the blade carrier from the associated peg by freeing the clip in the center, and lift off the blade assembly.

TOOLS

Spark plug socket wrench
Double end wrench, 8/10 mm
Double end wrench, 13/17
Double-tipped screwdriver
Straight punch
Wheel bolts wrench
Jack

CAR CARE

Exterior

Wash the bodywork frequently with cold or lukewarm water. Sponge down using a good quality car shampoo.

Never use household soap or detergent, otherwise the paintwork may be adversely affected.

If a hose is used avoid directing it at full force against the body.

Rinse thoroughly and dry off with a clean chamois leather.

Do not wash your car in the sunshine, especially in hot climates or when the hood is still hot.

When cleaning the windshield raise the wipers clear, and do not force them sideways.

An occasional light polish with an approved silicone car polish will give the paintwork extra protection. Also remove any stain promptly.

Grease and tar should be removed using a clean and soft paraffin- or petrol-moistened cloth. Subsequently, apply a fresh coat of polish.

To clean the glazing use a good quality window polish and wipe with porous paper such as a newspaper.

Chromium-plate and any other bright metal decorations are best cleaned with either cold or tepid water, or any reputable make of car chrome cleaner.

To preserve the rubber seals of doors, trunks and hard top use silicone grease.

This will also prevent squeaking, particularly in cold climates.

Interior

Dust the seats and cloth lining, preferably using a vacuum cleaner.

To remove grease spots from cloth coverings use a good brand of stain

remover, apply talc liberally, allow to stand and brush off.

To remove dirt from leathercloth coverings use a damp sponge and a good quality neutral soap.

Subsequently, rinse with a clean damp sponge and dry off using chamois leather.

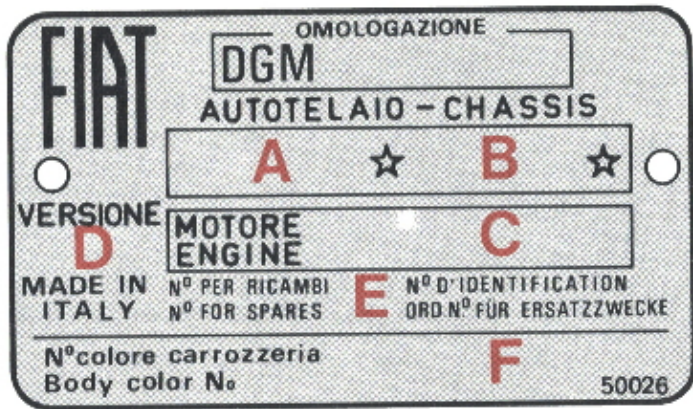
Fibre carpet stains should be removed using a petroleum spirit-moistened cloth.

Rubber mats or floor lining should be cleaned with a damp sponge and good quality soap.

When cleaning the back window demister avoid using harsh abrasives to prevent possible damage to the heating circuit.

As salt mixtures are frequently used in many countries to melt ice and snow, wash the engine compartment very frequently. Otherwise, serious corrosion could occur.

SPECIFICATIONS



IDENTIFICATION DATA

Data Plate, including :

A Chassis type

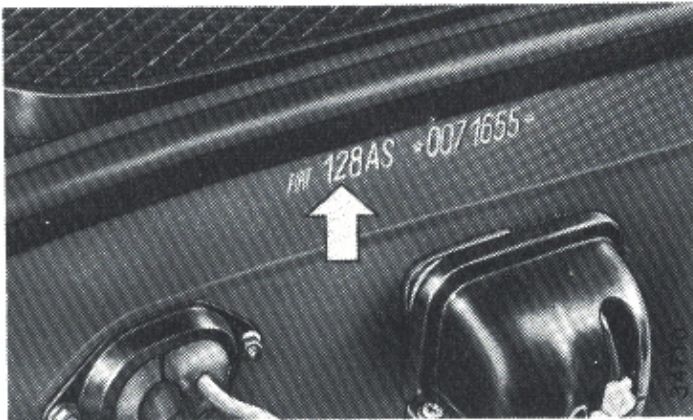
B Chassis number

C Engine type

D Version code

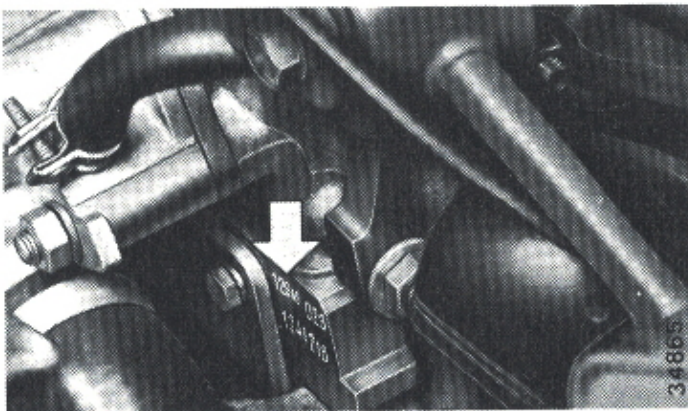
E Number for spares

F Paintwork color reference



Chassis Type 128 AS

Chassis Number



Engine Type 128 AS.023

Engine Number

Vehicle Emission Control Information Tag

Air pollution control specifications tag for correct engine tune-up and adjustments.

4416774

VEHICLE EMISSION CONTROL INFORMATION

FIAT S.p.A. - **FIAT** - ENGINE FAMILY 128 - CM¹ 1290

EXHAUST EMISSION CONTROL TYPE: E.M.

ENGINE TUNEUP SPECIFICATIONS AND ADJUSTMENTS WITH TRANSMISSION IN NEUTRAL

BASIC IGNITION TIMING	5° BTDC AT 850 RPM
IDLE SPEED (RPM)	850 ± 50
IDLE CO SETTING	2 ± 0.5%
FAST IDLE SPEED (RPM)	1600 ± 50
DWELL	55° ± 3°
SPARK PLUG GAP (MM)	0.7 to 0.8

PROPER MAINTENANCE IS ESSENTIAL FOR CONTINUED EFFECTIVENESS.

FOR FURTHER INSTRUCTIONS REFER TO BOOKLET PRINT NO. 503.553 - EDITION I - 1978, SUPPLEMENT TO DATA AND CHARACTERISTICS PRINT NO. 503.552

Paintwork Label

- A Paint make
- B Color name
- C Color code

VERNICIATURA ORIGINALE
PEINTURE ORIGINALE
ORIGINAL PAINTING
ORIGINALLACKIERUNG

A

COLORE - TEINTE
COLOUR - FARBTON

B

CODICE
CODE

C

ENGINE

Type	128 AS.023
No. of cylinders	Four in line
Bore x stroke	86 x 55,5 mm
Total piston displacement	1 290 cm ³
Compression ratio	9,2 to 1
Maximum torque	96 N • m
Maximum power (DIN)	51,5 kW (70 HP)

Valve Gear

Valve position	Overhead
Operation	Overhead camshaft
Drive	Toothed belt
Intake opens	10° B.T.D.C.
Intake closes	54° A.B.T.C.
Exhaust opens	54° B.B.D.C.
Exhaust closes	0° A.T.D.C.

Tappet clearance	
— For timing check	0,50 mm
— Normal (cold)	
Intake	0,30 mm
Exhaust	0,40 mm

Fuel System

Fuel pump	Mechanical
Air cleaner	Paper element, adjustable air intake
Intake manifold	Water-heated for mixture pre-heating
Carburetor	Dual-barrel, downdraft, automatic cold starting device, accelerator pump, idle stop solenoid.
— Type	WEBER 32 DATRA 19
Normal idle setting	850 ± 50 rev/min
Fast idle setting	1 600 ± 50 rev/min
CO concentration at idle	2% ± 0,5%
Anti-pollution aids	Fast idle device, positive crank-case ventilation system, fuel recirculation and evaporative emission control system.

Lubrication System

Type	Forced-feed, pressure relief valve
Oil pump	Gear
Oil filter	Full-flow, replaceable cartridge
Oil pressure	3,43 to 4,90 bar (3,5 to 5 kg/cm ²) with a warm engine
Positive crankcase ventilation system	

Cooling System

Type	Horizontal flow radiator, expansion tank
Water pump	Centrifugal
Fan	Electric, controlled by temperature switch on radiator
— Cut-in temperature	92° ± 2° C approx
Water pump drive belt sag	1 to 1,5 cm under a load of 98 N (10 kg)

Ignition System

Distributor	Camshaft-driven
Firing order	1-3-4-2
Static advance	5° B.T.D.C.
Centrifugal advance	28°
Contact point gap	0,37 to 0,43 mm
Dwell angle	55° ± 3° at 850 ± 50 rev/min
Spark plugs	
— Type	Champion RN 7 Y Marelli CW 78 LPR Bosch W 200 TR 30 Fiat 1 L 45 JR
— Thread size	M 14 x 1,25
— Electrode gap	0,7 to 0,8

BRAKES

Service

Type	Disc-all-round, split circuit, single cylinder sliding calipers, self-adjusting, fluid level "BRAKE" indicator
------	--

Hand Brake

Type	Mechanical, lever-operated, acting on rear wheels. "PARK BRAKE" indicator
------	---

POWER TRAIN

Clutch

Type	Dry single plate, diaphragm spring
Operation	Hydraulic
Pedal free travel	30 mm approx.

Transmission

Type	Four-speed, all-synchromesh
Gear ratios	First 3,583 to 1 Second 2,235 to 1 Third 1,454 to 1 Fourth 0,959 to 1 Reverse 3,714 to 1

Driving Axle

Position	Rear
Type	Unequal length drive shafts
Joints	
— Inner	Three-lobe, constant velocity
— Outer	Ball, constant velocity
Final Drive	
— Position	Combined with gearbox
— Type	Helical reduction, differential
— Helical drive ratio	12/53

SUSPENSIONS

Front

Independent, strut-and-link, tie rods, coil springs, sealed-for-life joints

Rear

Independent, strut - and - link, lower wishbones, coil spings, cushioned sealed-for-life joints, adjustable transverse links

STEERING

Steering wheel position	R.H.D.
Type	Rack and pinion
Column	Collapsible, two universal joints
Linkage	Twin track rods, sealed-for-life joints
Turning diameter	10 m

WHEEL GEOMETRY

Camber (at rim)	
— Front	0° to — 1°
— Rear	— 0° 45' to — 1° 45'
Toe-in (over rims)	
— Front	2 to 6 mm
— Rear	5 to 9 mm

WHEELS AND TIRES

Wheel type	Pressed steel disk
— Rim type	4 ^{1/2} J - 13"
Tires	
— Type and size	Radial-ply, 145 HR 13

ELECTRICAL SYSTEM

Battery

Earth	Negative
Capacity (at 20-hour discharge rate)	45 Ah
Heavy discharge rating (at — 18° C)	185 A

Alternator

Type	Built-in rectifier diodes and separate voltage regulator
Continuous rating	45 A
Cutting-in speed	Upon starting (with loads off)

Starter

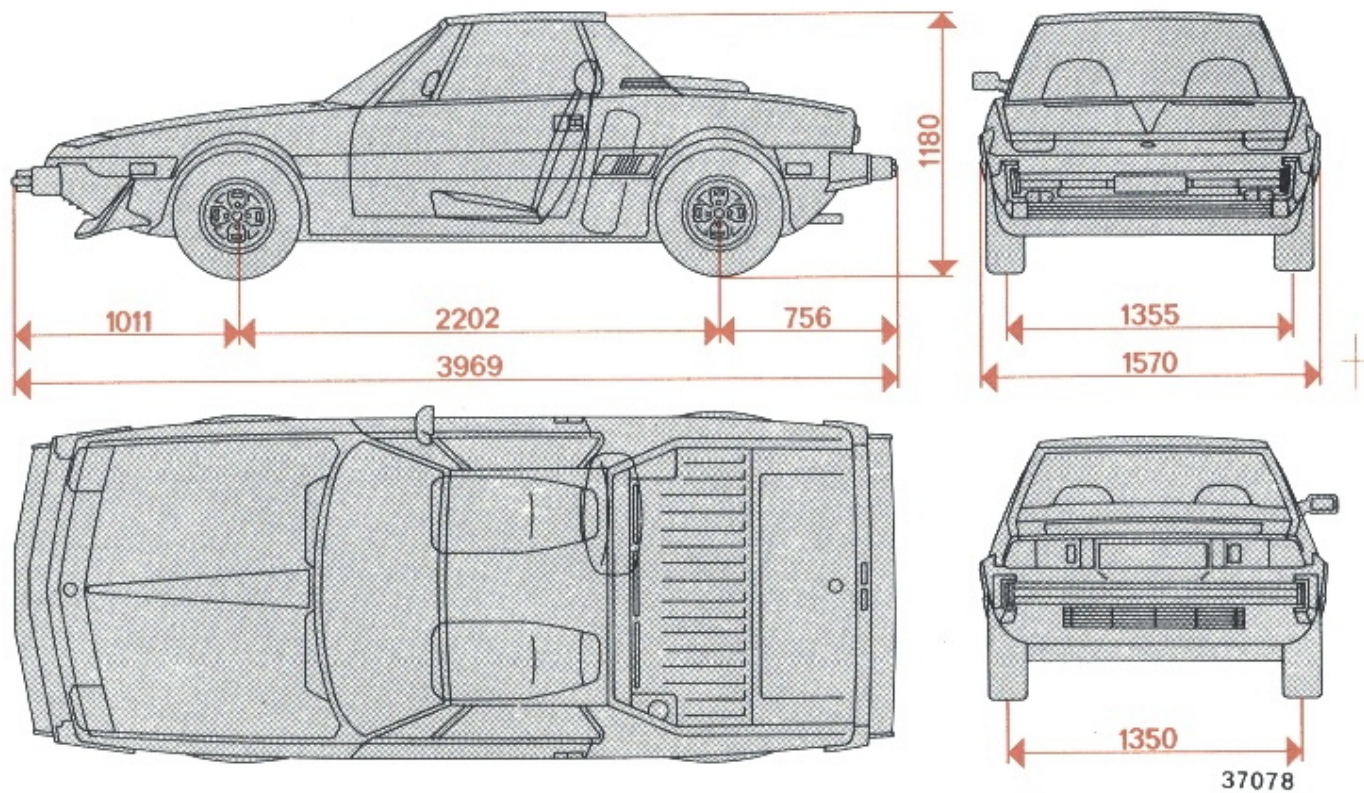
Output	0,8 kW
Starter drive	Solenoid and free-wheeling pinion

PERFORMANCE DATA

Maximum speeds and climbable gradients apply to a fully laden car after break-in.

	Speeds	Gradients
	km/h	%
First	45	45
Second	70	25
Third	105	15
Fourth	over 165	8

DIMENSIONS (Unladen car)



WEIGHTS

Curb	890 kg
Laden	1 090 kg
Capacity	2 occupants and 60 kg

Front trunk volume	155 dm ³
Rear trunk volume	125 dm ³

FITTING A TOW HITCH

If you want to fit a tow hitch follow the diagram on page 61.

Different solutions may be adopted **provided basic dimensions and anchoring points are retained.**

Secure the electrical coupling to a suitable bracket to be sited as near the turning axis as possible.

For the mechanical coupling use :

- Ball coupling Mod. « CUNA 501 » (to CUNA NC 138-10 Standard)
- Socket coupling Mod. « CUNA 501 » (to CUNA NC 438-15 Standard).

Electrical System

Electrical connections should be made via a 12 V 7-pin plug-and-socket (to CUNA NC 165-30 Standard).

Proceed to suitably modify the car electrical system by replacing the original flasher unit with a dual-intensity one, to cope with the additional loads of three 21 W bulbs, so as to ensure proper operation of turn signal indicators.

Interconnect car and trailer earths, via the 7-pin plug, using a 2,5 mm² size cable.

In addition to the signalling devices and a possible trailer electric braking system, only an interior lamp up to 15 W can be connected to the car electrical system. Electric brakes shall be directly connected to the battery by means of a cable not less than 2,5 mm² in size.

Cable Size

Load	Power Point	Min. cable size (in mm ²) versus max length					
		1,5 m	3 m	4,5 m	6 m	8 m	10 m
Turn Signal Indicators	Fuse A	5		1		1,5	
Stop Lamps	Stop Lamp Switch	0,5	1	1,5	2,5	2,5	4
Trailer Rear/ License Plate Lamps	Car Rear/ License Plate Lamps	1					

Brakes

Under no circumstances must the car braking system be modified.

The trailer brakes must be fully independent of car hydraulic system.

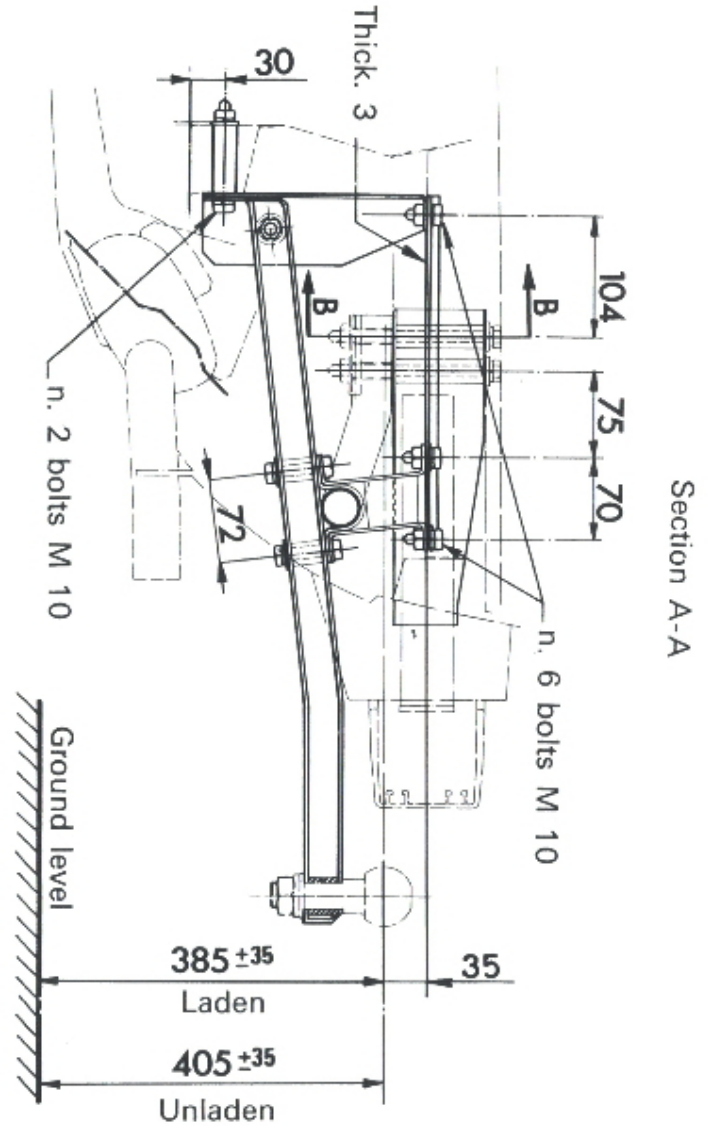
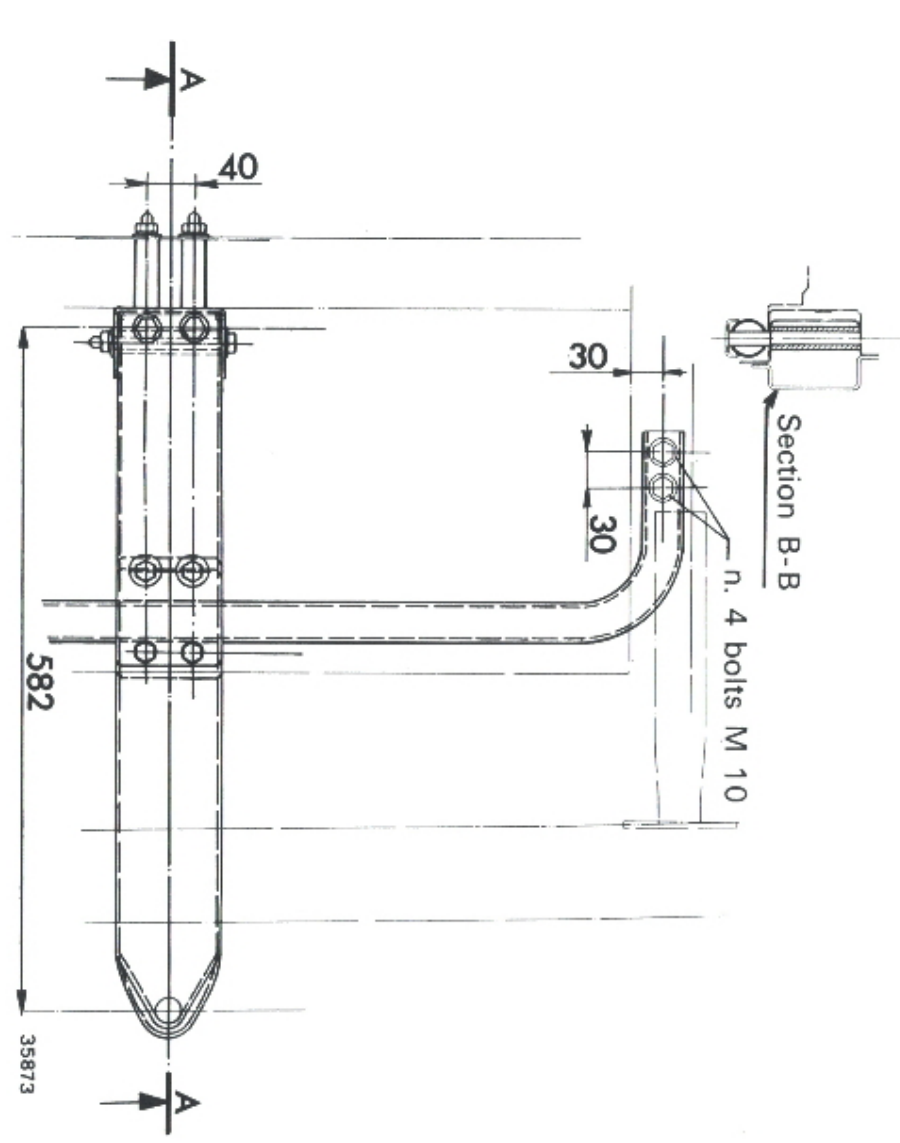
The maximum towing capacity, which refers a fully laden trailer (accessories, personal belongings etc.) should never be exceeded, otherwise you may incur penalties.

See you car « Registration Book ».

Note: Fiat decline all responsibility for any installation not according to the above directions.

Note that while attachment points must be retained in any case, mechanical and electrical connections may vary according to specific national laws.

TOW HITCH INSTALLATION DIAGRAM



SI - IMPERIAL CONVERSION TABLE

	multiply	by	to obtain
Length	millimetres (mm)	0,03937	inches
	inches (in)	25,4	millimetres
	metres (m)	3,28084	feet
	feet (ft)	0,3048	metres
	kilometres (km)	0,62138	miles
	miles	1,609	kilometres
Weight	kilograms (kg)	2,2046	pounds
	pounds (lb)	0,4546	kilograms
Volume	cubic centimetres (cm ³)	0,06102	cubic inches
	cubic inches (cu in)	16,387	cubic centimetres
	cubic decimetres (dm ³)	1,7598	pints
	pints	0,56825	cubic decimetres
Road Speed	kilometres/hour (km/h)	0,62138	miles/hour
	miles/hour (mph)	1,60934	kilometres/hour
Force	newton (N)	0,22481	pounds
	pounds (lb)	4,44820	newton
Pressure	bar	14,5037	lb/sq in
	lb/sq in (psi)	0,06894	bar
Power	kilowatts (kW)	1,341	horsepower
	horsepower (HP)	0,74571	kilowatts

FILL-UP DATA

	dm ³	kg	Type of FIAT Recommended Fluid (see page 60)
Fuel tank including a reserve of	48 7,5	—	Premium gasoline (98 to 100 octane rating) with a lead content of 0,82 to 0,84 grams/liter (in conformity with A.D.R. 27/A).
Coolant (incl. heater)	11,6	—	
Engine sump and filter ⁽¹⁾	4,5	4	Mixture of water and Parafu 11 fluid (see page 39) Olio fiat VS⁺ (see table below)
Transmission and axle	3	2,7	
Steering box	0,14	0,12	Olio fiat ZC 90
Constant velocity joint (sockets) and boots (each)	—	0,10	Olio fiat W 90/M
Brake hydraulic system	0,32	0,32	Grassofiat MRM 2
Clutch hydraulic system	0,18	0,18	
Windshield washer bottle	2	—	Liquido FIAT Etichetta Azzurra DOT 3
			Water and alcohol-base solution ⁽²⁾

⁽¹⁾ Total lubricating system capacity is 5 dm³ (4,5 kg). The tabulated value is the requirement for periodic oil changing.

⁽²⁾ In warm climates use 30 cm³ of FIAT **DP 1** per dm³; in cold climates (down to -10° C) use a 50-50 mixture of water and FIAT **DP 1**. Below -10° C use FIAT **DP 1** undiluted.

ENGINE OIL GRADE DESIGNATIONS

Atmospheric Temperature	Single-grade	Multi-grade
Below -15 °C	VS⁺ 10 W SAE 10 W	VS⁺ 15 W/40 (Multigrado) SAE 15 W/40
-15 °C to 0° C	VS⁺ 20 W SAE 20 W	
Up to 35° C	VS⁺ 30 SAE 30	
Above 35° C	VS⁺ 40 SAE 40	

Do not mix different brands or grades

TIRE INFLATION PRESSURES

— Front 1,76 bar (1,8 kg/cm²)

— Rear 1,96 bar (2 kg/cm²)

Note: To obtain optimum performance strictly adhere to the pressure ratings given. Tire inflation pressure should be checked with cold tires.

RECOMMENDED LUBRICANTS AND FLUIDS

OLIOFIAT DESIGNATION	INTERNATIONAL DESIGNATION
Oliofiat VS +	Low-ash Detergent Oils API Service SE. To MIL-L-46152, and above CCMC Sequence
Oliofiat ZC 90	SAE 80 W/90 Oil (not EP) containing anti-wear additives, for manual transmission
Oliofiat W 90/M	SAE 80 W/90 EP Oil to MIL-L-2105 B requirements
Grassofiat JOTA 1	Lithium-base Grease to N.L.G.I. No. 1
Grassofiat MR 3	Lithium-base Grease to N.L.G.I. No. 3
Liquido FIAT Etichetta Azzurra DOT 3	DOT 3 Motor Vehicle Brake Fluid to F.M.V.S.S. No. 116

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Reference in this publication to « Optional », « Where fitted » and « If any » refers to alternative specifications for certain parts which may involve a price adjustment.

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