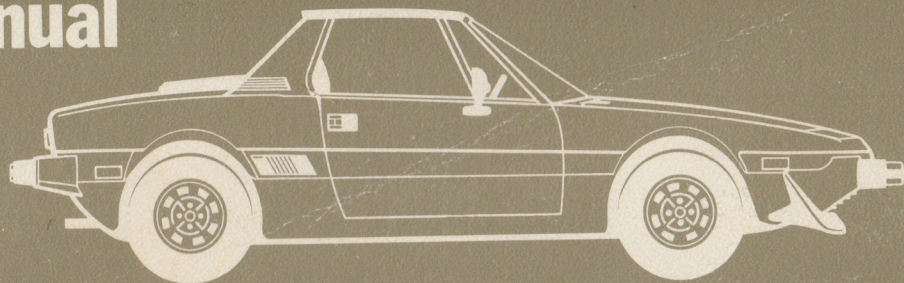


Fiat X1/9 five speed

1980
owner's manual



FIAT



When ordering FIAT parts please state (see pages 6-64):

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

When ordering body paint please state (see page 65):

- 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 the important 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:

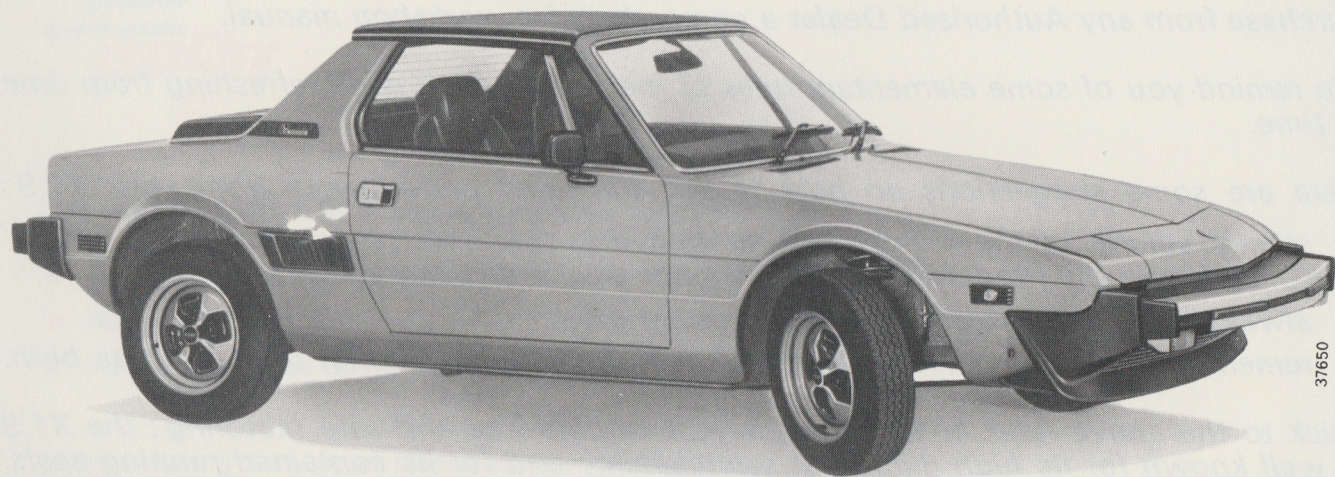
*strictly adhere to the instructions contained in the "Warranty and service book"
and have the Programmed Maintenance operations carried out;*

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: the X1/9 is well known for its high degree of serviceability and for its contained running costs. Look after it: this will add to the life of your car and enhance its commercial value.

Fiat Auto S.p.A.



37650

Fiat X1/9 five speed



Before driving your FIAT

Page 5

Driving your FIAT

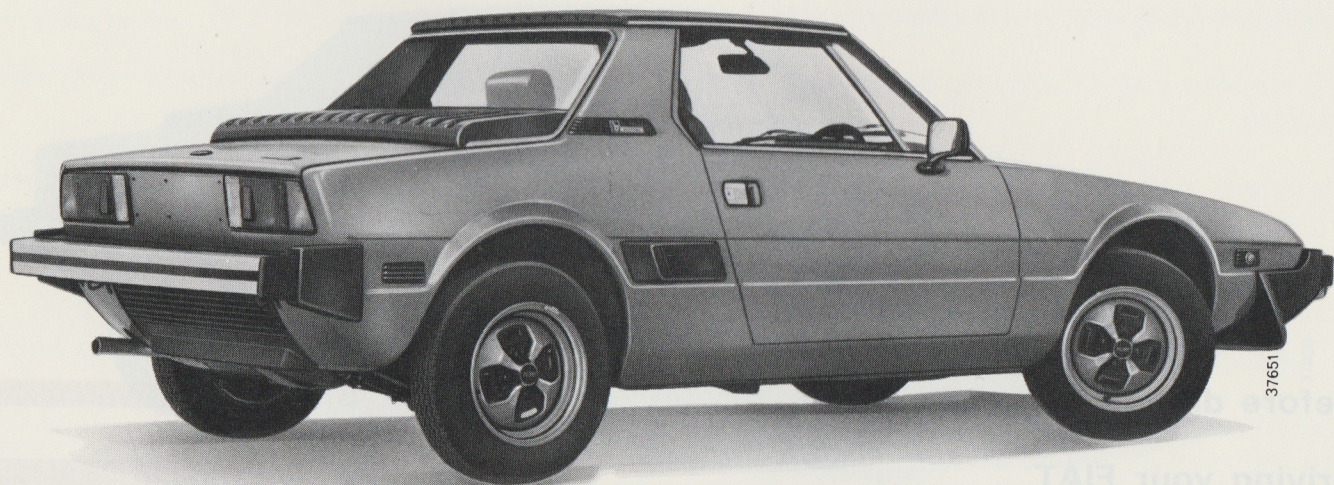
» 27

Maintenance and do-it-yourself servicing

» 37

Specifications

» 63



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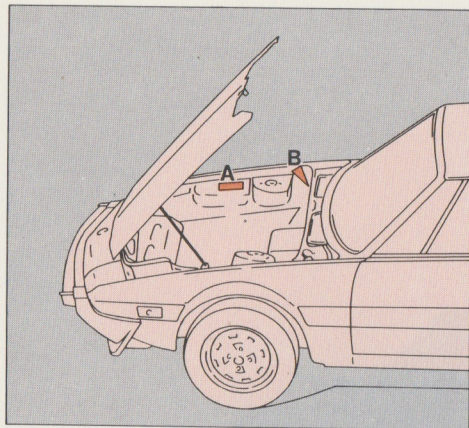
BEFORE DRIVING YOUR FIAT

IDENTIFICATION DATA

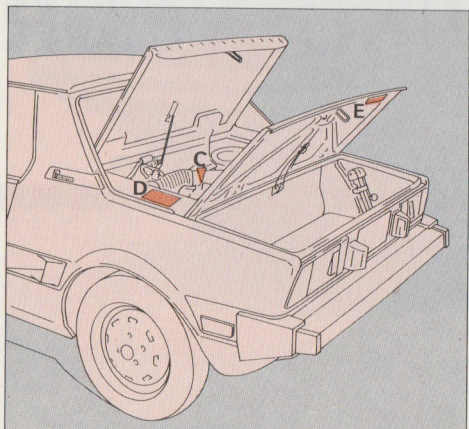
(See also page 64).

A - E.E.C. identification data plate

B - Chassis type and number



37663



37661

C - Engine type and number stamped on the cylinder block

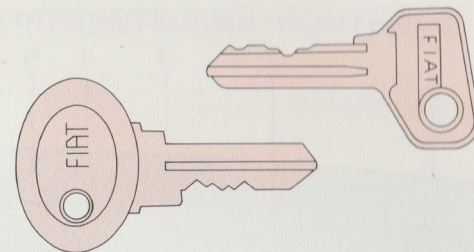
D - Vehicle emission control information tag

E - Paintwork label

KEYS

Your car is provided with two sets of keys, the steering lock ignition key and the door, glove compartment, engine compartment and rear trunk key.

We recommend recording the number stamped on each key in the space provided on the inside back cover of the "Warranty and service book". Should you lose a key, you may obtain a replacement from the FIAT Service Network quoting the identification number.



31700

DOORS

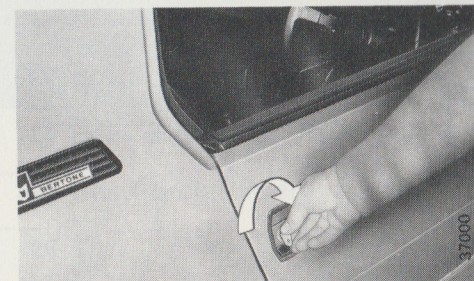
To Open from Outside

Unlock, grip the lever and pull open.

To Open from Inside

Pull lever A regardless of sill button B position.

The courtesy lamp lights up upon opening either door.



37000

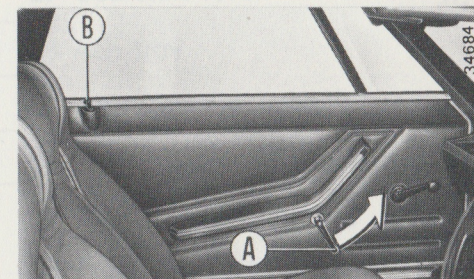
To Lock from Outside

Both doors may be locked with the key provided. Always use the key to lock the door upon leaving your car.

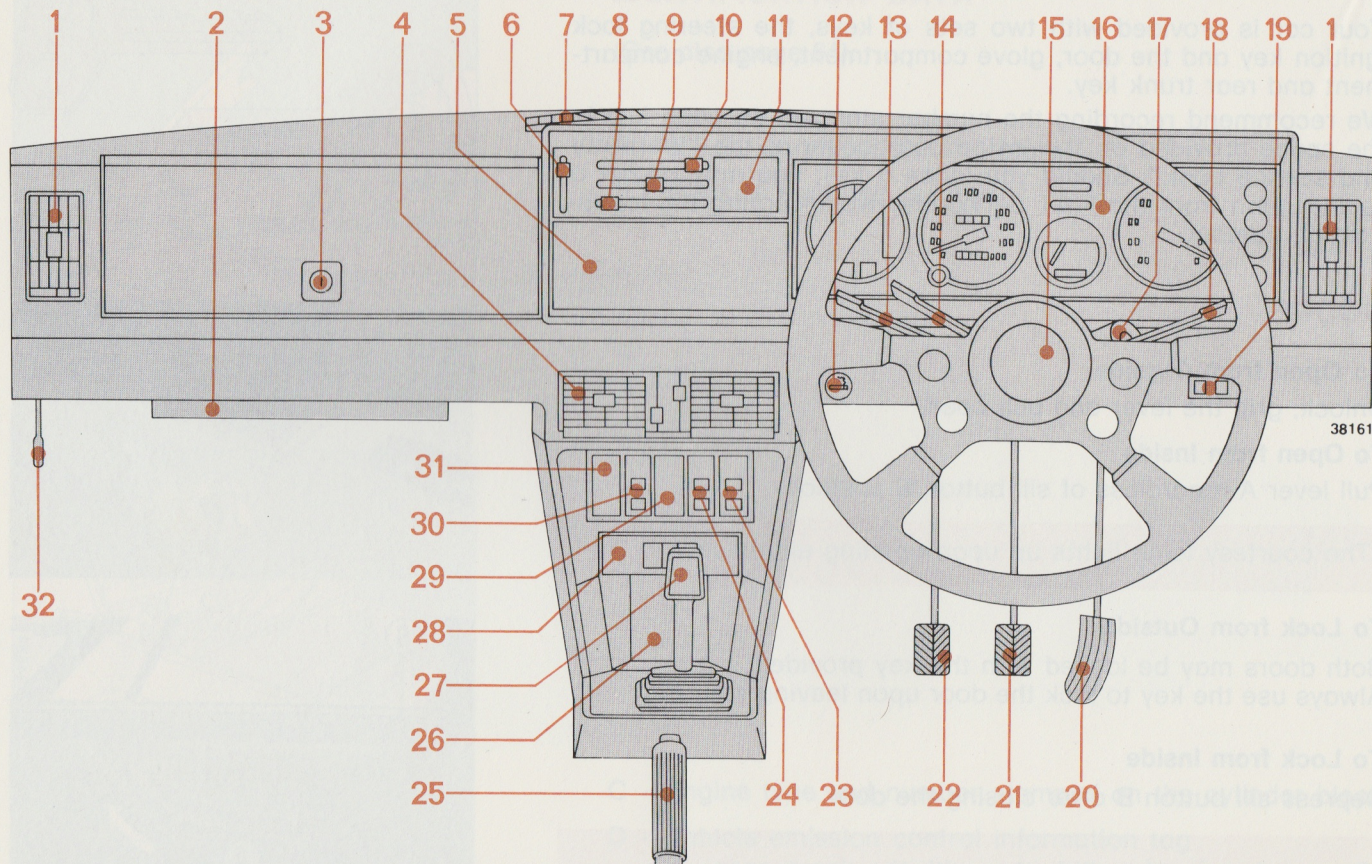
To Lock from Inside

Depress sill button B after closing the door.

Do not depress the sill button with the doors open.



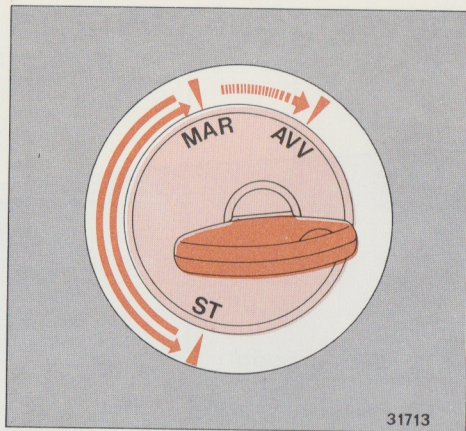
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INSTRUMENTS AND CONTROLS

- | | | |
|--|--|------------------------------------|
| 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 control lever |

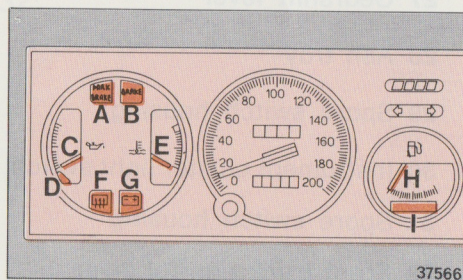


Ignition Switch

- MAR (*Run*) - Engine ignition ON and accessories energised
- AVV (*Start*) - Engine starting
- ST (*Stop*) - Steering post anti-theft lock in - Key removable

If the engine fails to start bring the ignition key back to ST position before operating the starter motor again. Horn, cigar lighter, courtesy lights, carburetor cooling fan, clock, hazard warning lights circuits are always completed, irrespective of ignition key position.

Do not leave the ignition key at MAR when the engine is not running.



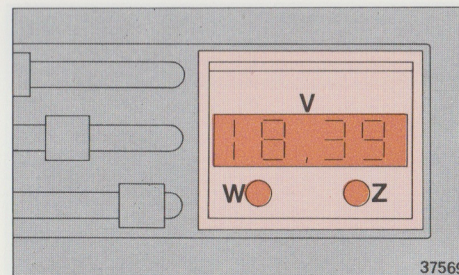
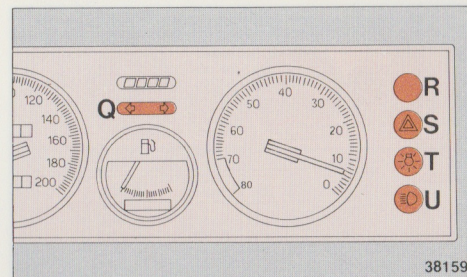
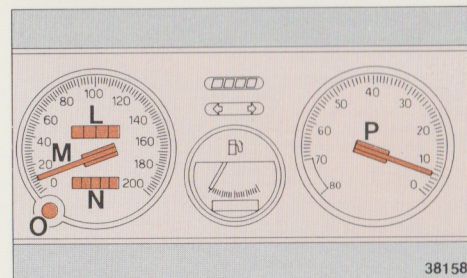
Reading the Instruments

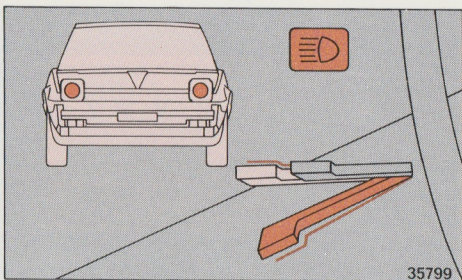
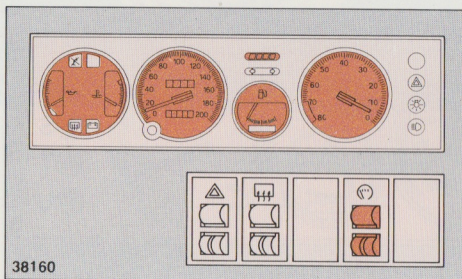
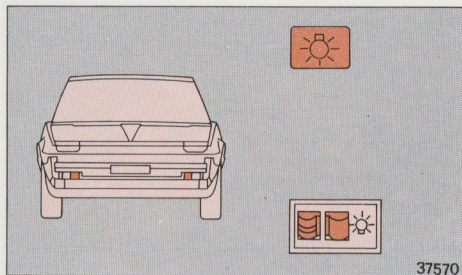
- A - Park brake indicator (Red)
- B - Brake indicator (Red). Comes on when the ignition switch is turned to AVV (Start) to warn the driver that the bulb is efficient and must go out when the key is in position MAR
- C - Oil pressure gage
- D - Oil pressure indicator (Red). Lights up when lubrication pressure is insufficient
- E - Engine coolant temperature gage. The needle enters the red sector in case of overheating
- F - Back window demister indicator (Yellow)
- G - Battery charge indicator (Red). If the lamp stays on, this indicates some fault in the charging circuit
- H - Fuel gage. Tank capacity is 49 dm³ approximately
- I - Fuel reserve indicator (Yellow). It glows when the tank content is about 7,5 dm³

- L - Trip recorder. The trip figure can be cancelled by means of button D
- M - Speedometer
- N - Odometer
- O - Trip recorder zeroing knob. Turn counterclockwise, but never with vehicle running
- P - Tachometer. When the pointer enters the yellow sector, the engine is at its maximum output. Any higher speeds in this sector, even if not dangerous, are not expedient in terms of car performance and fuel consumption. The red sector indicates engine over-revving.
- Q - Turn signal arrow indicator (Green, flashing) (see page 13)
- R - Spare indicator
- S - Hazard warning indicator (Red)
- T - Parking and tail lights indicator (Green) (see page 12)
- U - High beams indicator (Blue) (see page 12)

Digital Clock

- V - Legible with ignition key at MAR
- W - Hours reset knob
- Z - Minutes reset knob





Lighting Switch

Left = Off

Center = *With ignition key at ST (or removed):*

Parking and tail lights and licence plate lights; head-lights down

With ignition key at MAR:

Parking and tail lights and licence plate lights; head-lights up

Right = *With ignition key at MAR:*

Parking and tail lights and licence plate lights; head-lights UP and ON

Note: Headlights remain UP but OFF when the key is returned to the ST position.

Panel Light Switch

With the ignition key at MAR.

Pressed at top = Off

Center = Dim

Pressed at bottom = Bright

Headlight Control Lever

With ignition key at MAR and lighting switch pressed at right.

Up = Low beams

Down = High beams and indicator (blue)

To flash the high beams lift and release the lever.

Turn Signal Lights Switch Lever

Up = Right turn

Down = Left turn

Turn signal indicators operate only when ignition key is at MAR. A green indicator flashes when the turn signal lights are operating.

Turn signal lights are self-cancelling.

Windshield Wiper/Washer

(with ignition key at MAR)

Wipers

1 = Off

2 = On/Off (intermittent operation)

3 = Continuous operation at low speed

4 = Continuous operation at high speed

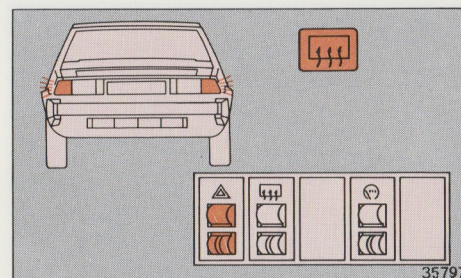
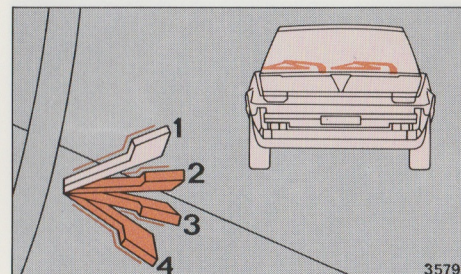
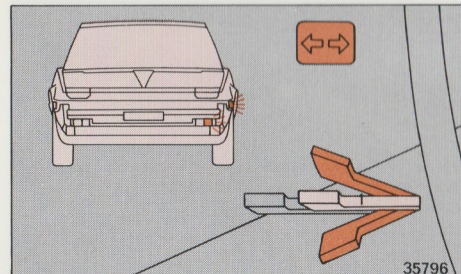
When switched off, the wipers will automatically park at the base of the shield.

Washer

Lift the lever to operate.

Hazard Warning Switch

The switch is located on the instrument panel and incorporates an indicator light. To act as a warning to other traffic in an emergency, operate the switch which will make all four turn signal lights flash simultaneously.

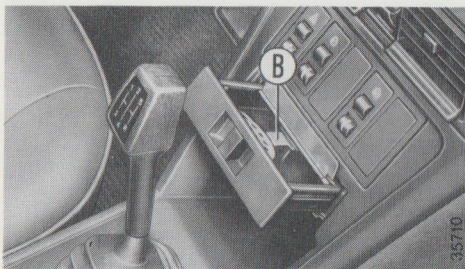




Cigar Lighter

To operate the cigar lighter press holder A into the socket and release.

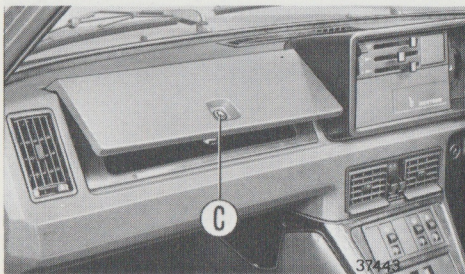
Upon reaching the required temperature (after approximately 15 sec.) the holder will return to the extended position ready for use.



Ash Tray

Ash tray is of the drawer-type.

To empty, open it, depress stubber B and withdraw.



Glove Compartment

To open the glove compartment unlock button C using the door key.

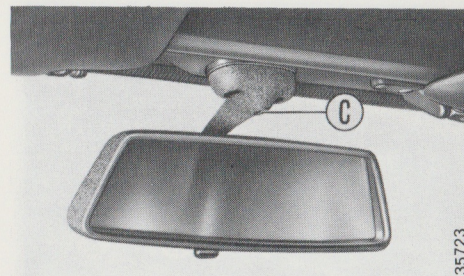
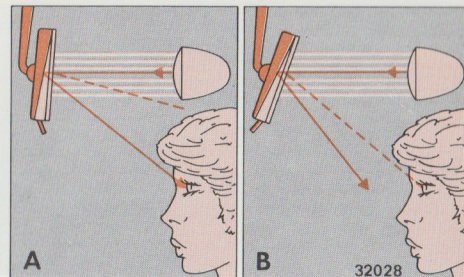
Dipping Rear View Mirror

The mirror is mounted on a ball-type joint which permits adjustment in all directions. It can also be adjusted to avoid dazzle from a following car. The mirror and stem are designed to disengage from the roof upon impact.

A - Normal position

B - Anti-dazzle position

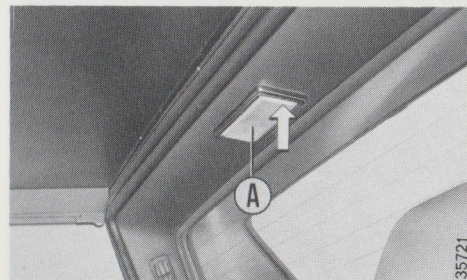
Make sure the tab is in position A before adjusting the mirror.

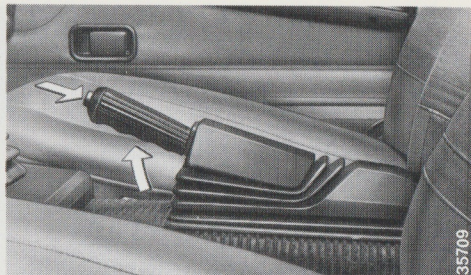


Should the mirror come off, slacken screw C, replace the mirror and retighten the screw.

Courtesy Light

The front courtesy light is mounted on the ceiling above the seats. To switch on with doors closed, depress lens A on either side.

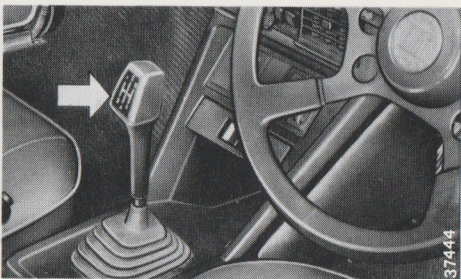




Hand Brake Lever

To apply, pull the lever firmly upwards. To release it, depress the button, lift the lever slightly, then ease it fully down.

Tell-tale A on the fascia, see page 10, warns the driver that the hand brake is set.



Gear Lever

Gear lever positions are as shown.

To engage reverse (R), bring the car to a dead stop, depress the lever and move to the right and rearward.

If difficulty is experienced on inserting first, when the car should be stationary, release the clutch pedal and repeat the gear selection procedure.

HEATING AND VENTILATION

Heating and ventilation are according to seasonal requirements. To ensure best comfort to occupants it is important to become familiar with the system controls and operation.

Slide control A sets the volume of air admitted in the car.
Slide control B sets the temperature of the air.

If the normal air flow is inadequate (i.e. when the car is stationary or travelling at slow speeds, or when there is a strong following wind) it can be boosted by bringing into operation the two-speed, electrically-operated heater fan through switch C.

0 = Off

1 = Low speed

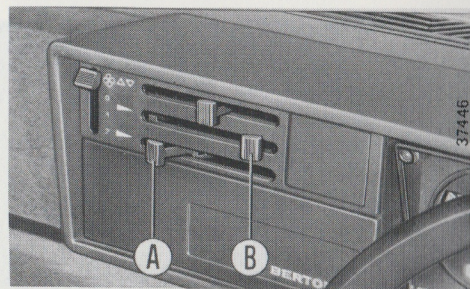
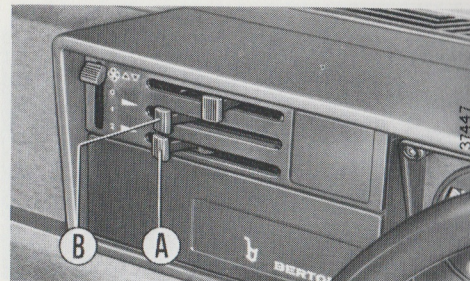
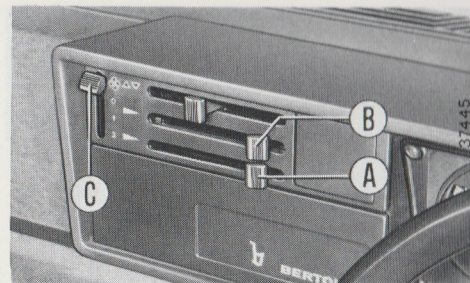
2 = High speed

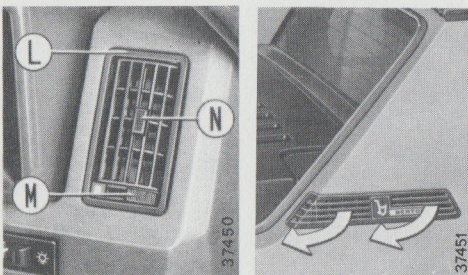
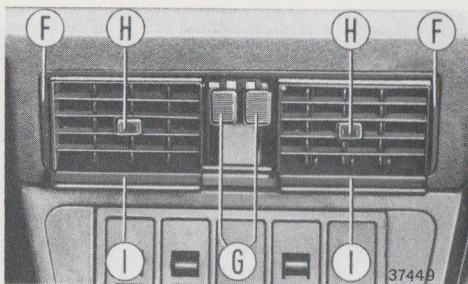
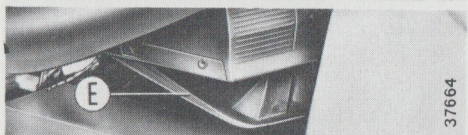
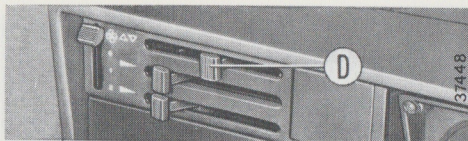
Hot air is obtained by setting slides A and B at the left.

In very cold climates do not set slide A to the far left as the heater radiator would not be able to properly heat the oncoming air flow.

Fresh air is obtained by setting slide A to the left and slide B to the right.

Fresh and heated air may be blended at will by suitably adjusting slides A and B.





Air distribution slide D controls heater flap E.

— Right = flap open. Air to footwell with a bleed to windshield (see opposite page) and front occupant area

— Left = flap closed. Air to vents F and to windshield.

Center vents F direct the air flow to the interior.

— Lever G controls the volume of each vent

Down = closed

Up (green symbol) = open

— For vent horizontal adjustment move levers H.

— For vent vertical adjustment move control I.

Panel side outlets L are ram-fed fresh air intakes only. To adjust fresh air volume operate lever M:

lever over green dot = open

For vertical adjustment operate lever N.

For horizontal adjustment rotate the vent body.

Stale air valve extractors in roll-over pillars activate interior air renewal when travelling with closed windows.

DEMISTING AND DEFROSTING

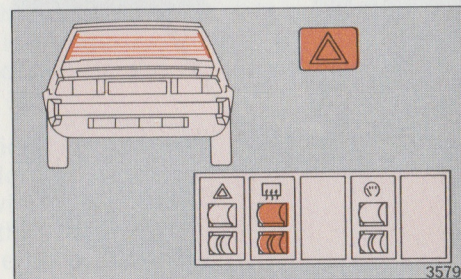
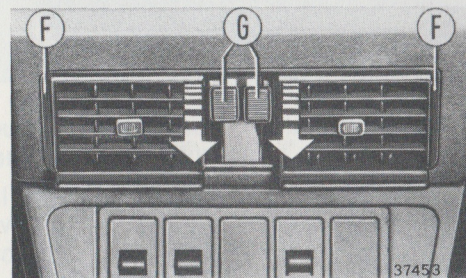
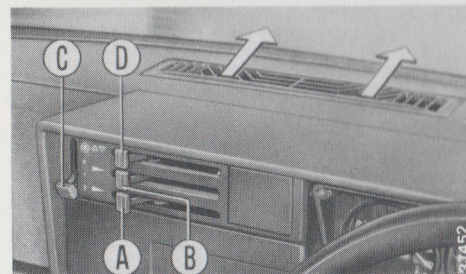
To clear the windshield:

- Move slides A, B and D fully to the left
- Move levers G down to close vents F
- Switch on the heater fan through switch C (position 2)

Heated air will flow out of shield vent .

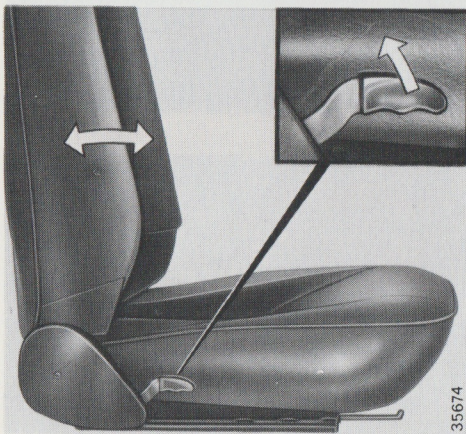
To prevent condensation and to ensure maximum rearward vision in adverse weather conditions an electrically-heated back window demister is fitted.

Its operation is controlled by a switch. A yellow indicator is illuminated whenever the back window demister is switched on.





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SEATS

For fore-and-aft adjustment turn the lever upwards and move the seat.

Ensure that the lever engages the nearest locking notch.

The angle of the seat may be altered by means of the lever provided (see opposite figure).

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.

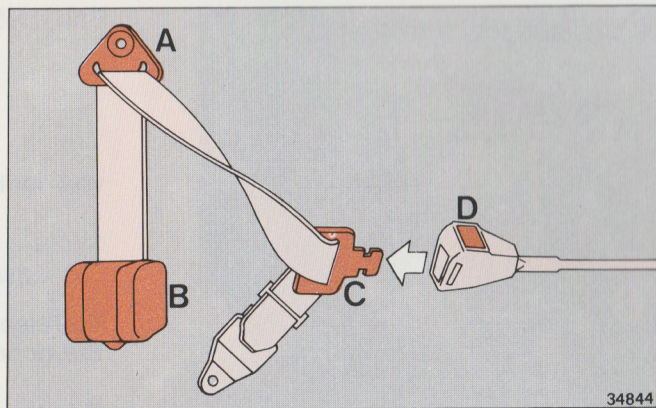
Tongue **C** will automatically slide out and the belt will return to the stowed position.

(Excepts 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.

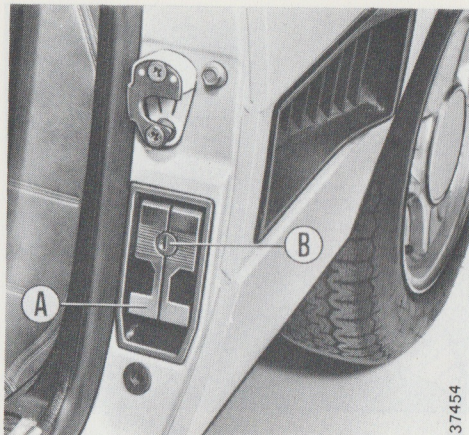
Belts should not be worn with straps twisted.

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..."

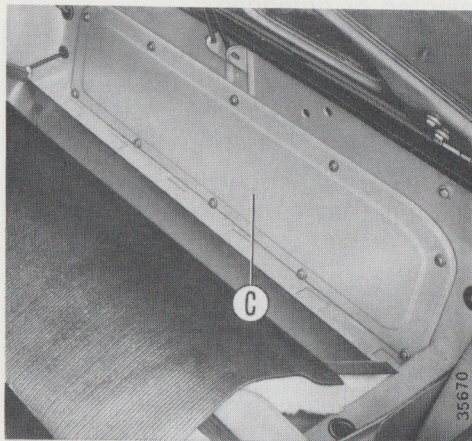
ENGINE COMPARTMENT



37454

To release the hood, unlock B on driver's side door pillar using the door key and pull lever A.

To close simply let the hood down and, if necessary, depress.



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In case of breakage of the hood release cable, in order to gain access to the emergency cable in rear trunk, first remove the rubber mat, then the linings and cover C.

REAR TRUNK

To open the rear trunk lid, release lock B using the door key and pull up lever A.

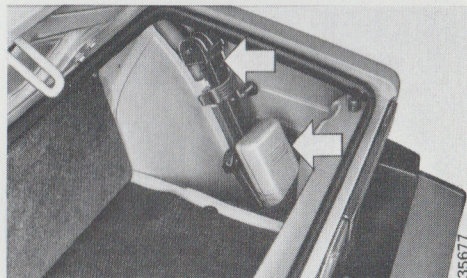
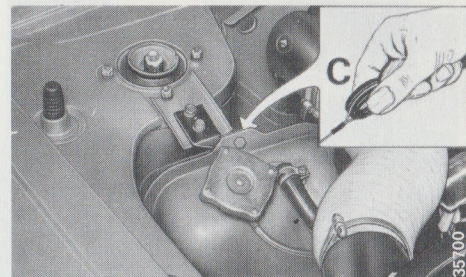
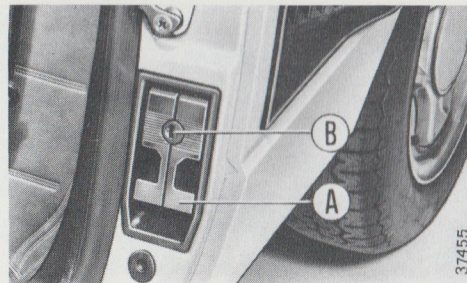
To close let the lid down and, if necessary, press it down.

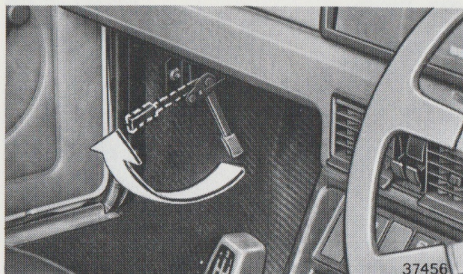
In case of breakage of rear trunk lid release cable, pull ring C in engine compartment.

The jack, the spare wheel and the tool box are housed in the rear trunk.

The tool box contains:

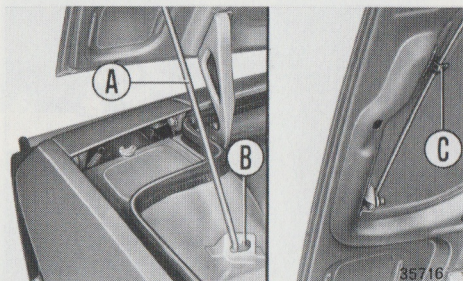
- Spark plug socket wrench
- Double end wrench, 8/10 mm
- Double end wrench, 13/17
- Double-tipped screwdriver
- Wheel bolts wrench





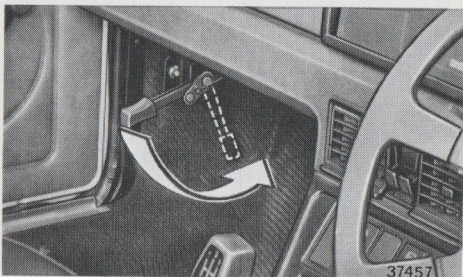
FRONT TRUNK LID

To release the catch, pull the lever located under the left-hand side of the facia.



Hold the lid in the raised position by means of stay A engaged in supporting bracket B.

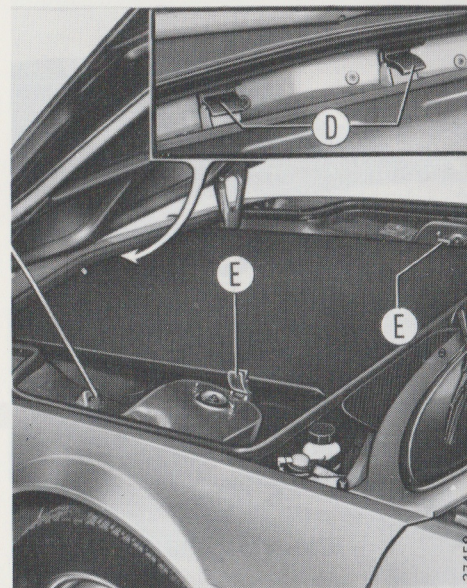
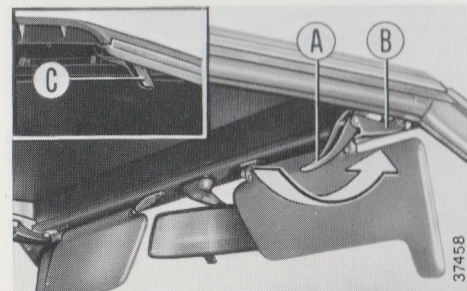
During running, to prevent rattling, stay A should be secured to clip C.

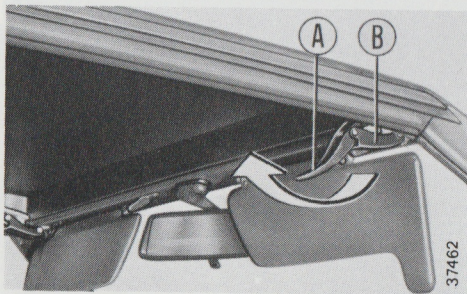
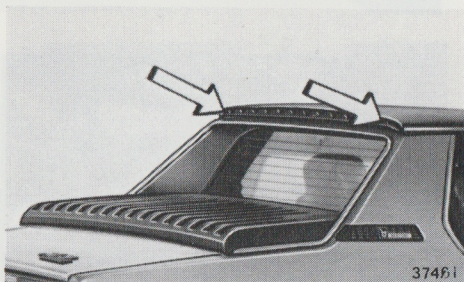
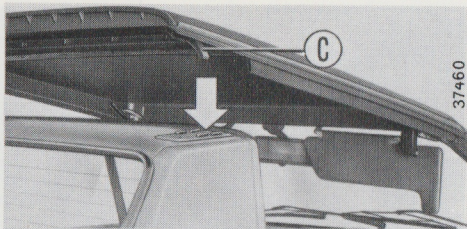


To lock the lid, push release lever back to the original position. Do not press the lid down.

HARDTOP REMOVAL

- Open the front trunk. The hardtop can be stowed in the front trunk without detracting from the available space.
- Lower the sun visors.
- Release two overcenter catches B by pulling down simultaneously levers A, hold the catches in their seats B and push the levers forward to loosen the top.
- Raise the hardtop from inside the car until lugs C are clear of associated recesses and lift off.
- Turn the top round through 90° so that both catches face towards the right-hand side of the car.
- Place the hardtop in the trunk ensuring that it engages anchor points D provided, and fasten rubber retainers E.

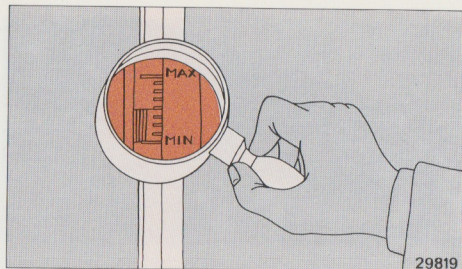




HARDTOP REFITTING

- Align lugs C with associated recesses.
- Fold down sun visors and push levers A forward until catches B can be hooked.
- Push down and forward simultaneously the hardtop from the back then lock overcenter catches.
- Make sure, even if overcenter catches have locked correctly, that lugs C have really engaged recesses D.

DRIVING YOUR FIAT

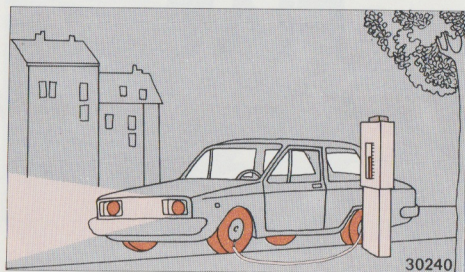


VITAL CHECKS BEFORE STARTING

Periodically or before starting on a long journey, check the levels of engine coolant, engine oil, clutch and brake fluid and battery electrolyte. For engine oil grades and corresponding atmospheric temperature see page 77.

It is vitally important that tire pressures are correct (see page 77). 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 anti-freeze/water strength (see page 42).



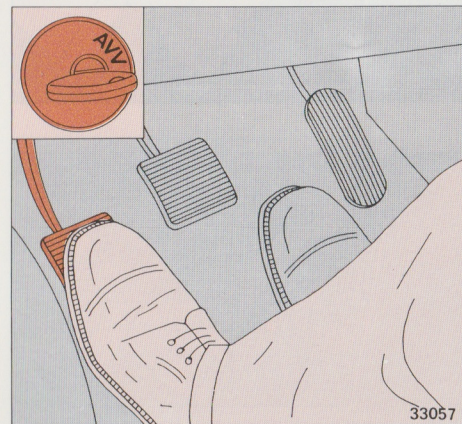
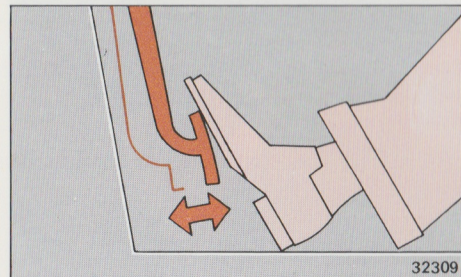
Use studded tires before starting on a journey on ice or snow-covered roads and remember that studded tires should be fitted to all wheels.

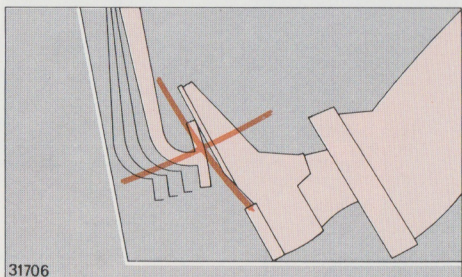
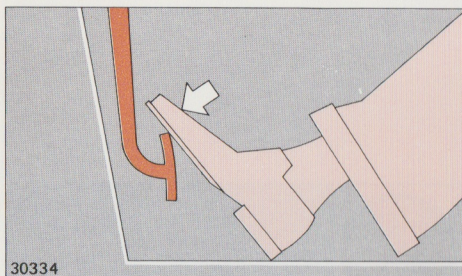
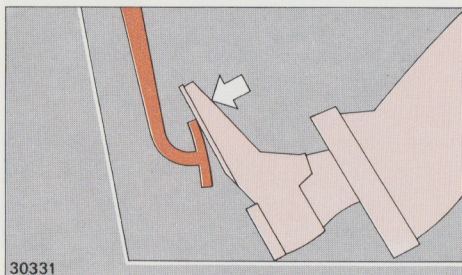
Local authorized Dealers are conversant with National requirements and their advices should be obtained.

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.





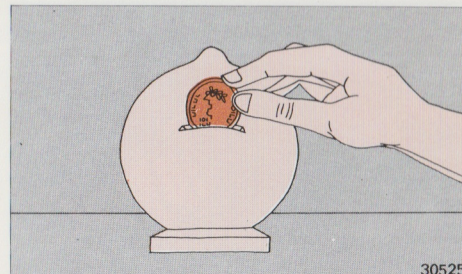
When Hot

- Depress the accelerator pedal through a quarter of its travel.
- Turn the ignition key to AVV position and release it immediately the engine fires. If the engine does not start, the key must be returned to ST position, before the starter motor can be operated again.
- When the engine is hot it may also be necessary to depress the accelerator pedal fully in, again releasing it as soon as the engine fires.
- When the engine is hot the automatic choke does not come into operation.
- 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

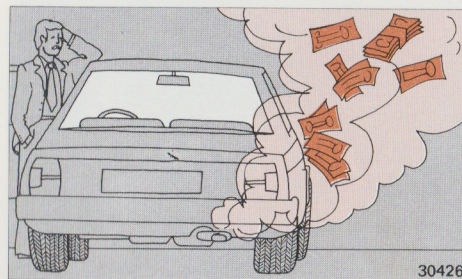
Fuel consumption will be kept within reasonable limits when spark plugs are clean and electrode gap correct, and when carburetor, cooling system and air cleaner are in good conditions.

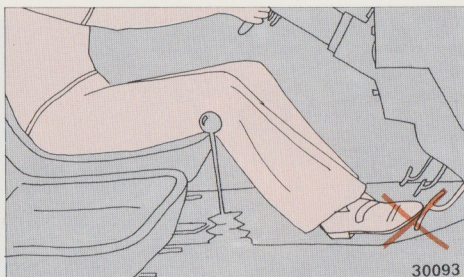


Conversely, fuel consumption increases with the windows open and the tires underinflated.

In particular:

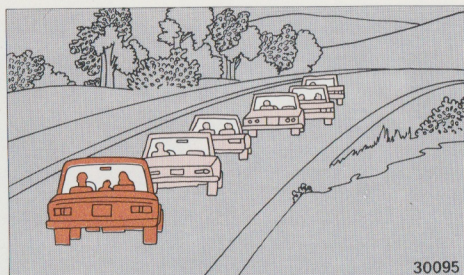
- When starting from cold, help automatic choke deactivation by depressing the accelerator pedal once more.





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

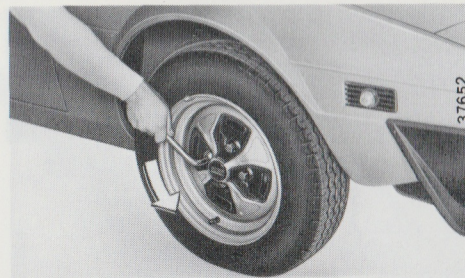
Never race the engine unnecessarily nor toy with the accelerator when waiting at traffic lights. Avoid sudden starts at full throttle.



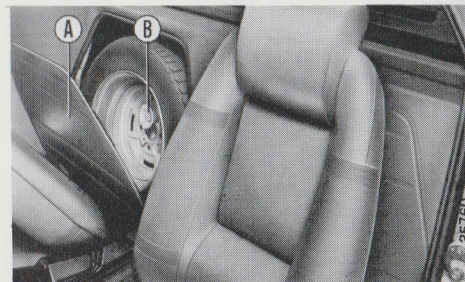
- Do not hesitate to change up whenever possible.
- When driving do not exceed maximum engine torque speed.
- Driving in a queue needs accurate judgement of the speed not only of preceding car but also of the traffic ahead in order to anticipate sudden stops.
- Switch off the engine when the car is stopped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

WHEEL CHANGING

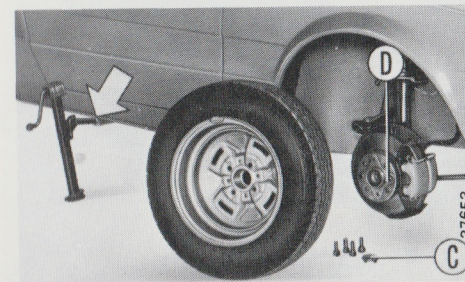
- Wheel changing should be carried out with the car standing on level ground and in all cases with the handbrake fully applied.
- Take out the tool box and the jack from the rear trunk (see page 23).
- Slacken the wheel fixing bolts by about one turn.

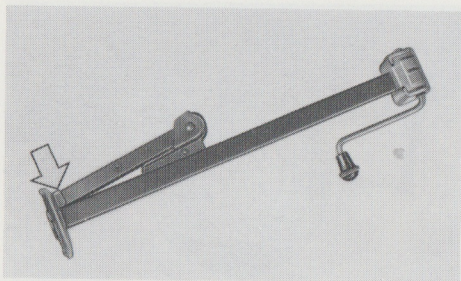
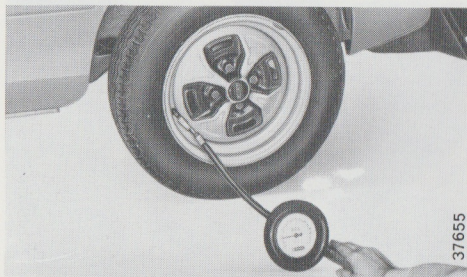
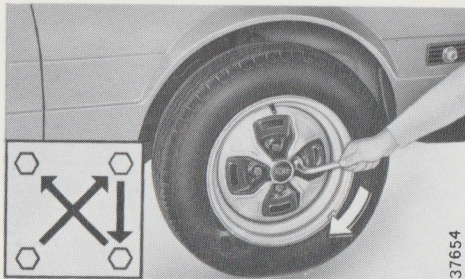


- Tip the driver's seat squab forward, withdraw self-adhesive panel A, remove wing nut B and take out the spare wheel.



- Insert the jack spigot well home into the jacking socket underneath the floor pan, rest the base on firm ground and rotate the handle attached to the jack. Raise the car until the wheel is clear of the ground.
- Remove the bolts and withdraw the wheel.
- Working from inside the wheel, remove trim C.
- Mount the spare wheel ensuring that peg D fits the holes in the wheel disc.





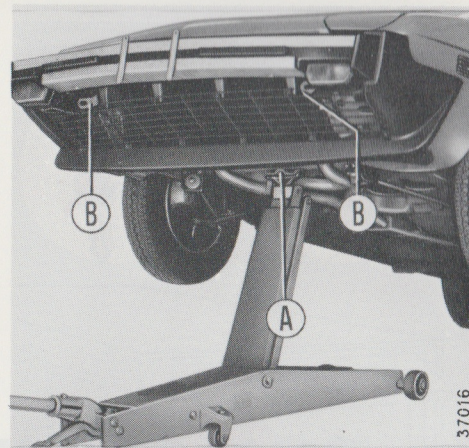
- Lightly tighten the bolts.
- Lower the car and remove the jack.
- Fully tighten the bolts in a diagonal sequence.
- Ensure that the tire inflation pressure is correct (see page 77).

Before stowing the jack, fold back the spigot and turn the handle until the spigot locks against the base of the jack. This will prevent rattling during running.

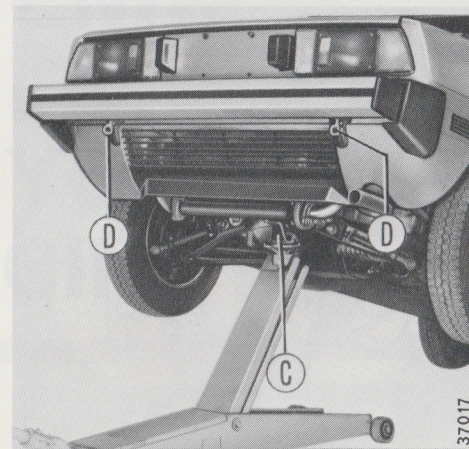
Following tire refitting, the complete wheel should again be balanced.

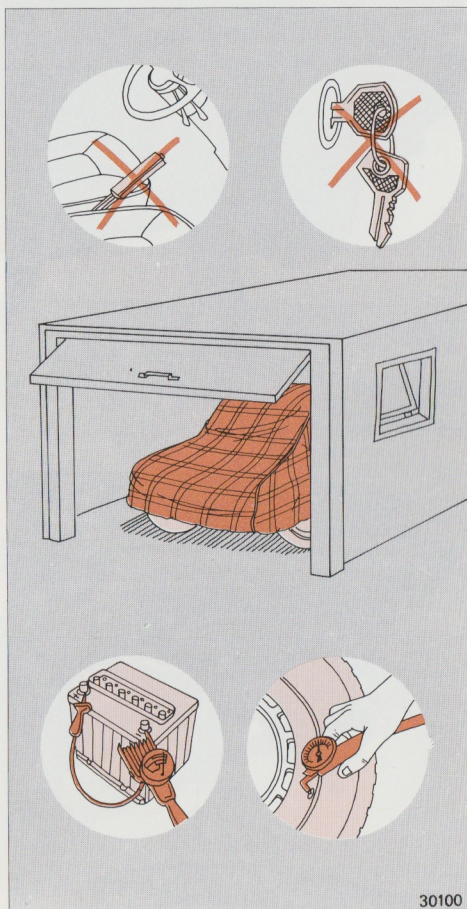
JACKING-UP AND TOWING

To raise the front end of the car jack up at front brackets A. For towing, use eyes B.



To raise the rear end of the car jack up at rear bracket C. For towing use eyes D.



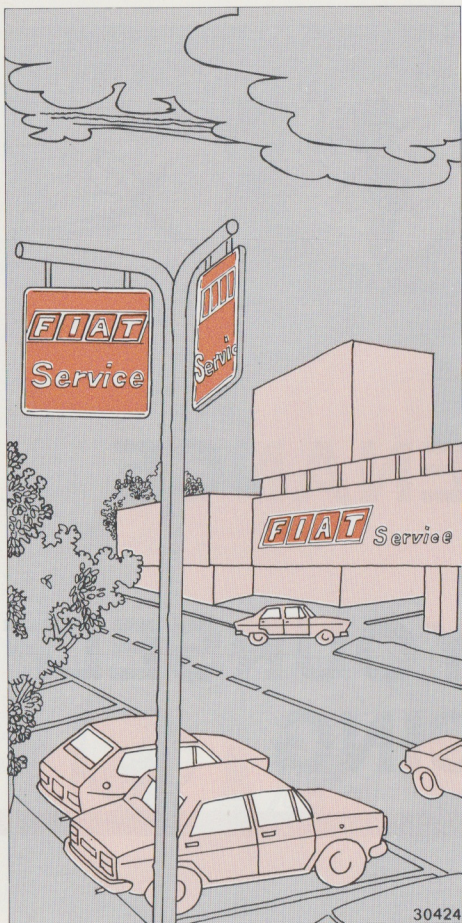


PROTECTION DURING STORAGE

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 handbrake is released.
- Disconnect battery terminals.
- Remove the windshield 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

ON DURING STORAGE

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

Every new car is issued with a **Free Service Coupon (FSC)** 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 valve clearance • Check and adjust carburetor idling speed and CO concentration • Check and adjust handbrake lever and brake pedal travel • Check and correct tire pressure • Check and adjust front wheel toe-in • Check rear wheel toe-in. Extra: adjust rear wheel toe-in • 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, engine compartment and trunk lids closures • Top up transaxle oil, coolant, brake fluid, clutch fluid and battery electrolyte • Renew engine oil (oil to be charged to the Owner).

Final Test

Finally the cooling system

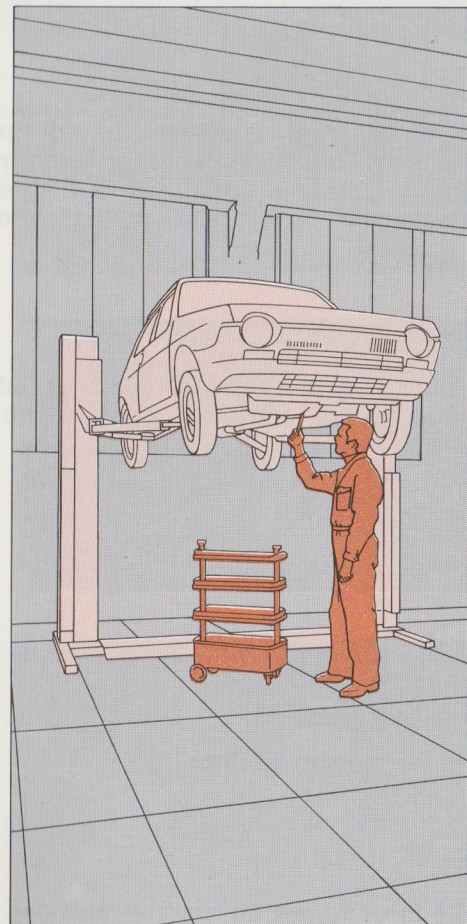
Regular maintenance is a major factor in ensuring a long life to your car, while at the same time providing best performance and trouble-free operation.

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

This plan is scheduled to be performed by using the coupons included in the "Warranty and service book".

Any repairs which may be disclosed as being required, as a result of inspection 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.



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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, coolant level and battery electrolyte level.

Every 5 000 km

Check tire wear.

Every 10 000 km (or 6 months)

Renew engine oil.

Renew engine oil filter.

Every 10 000 km

Clean or renew air cleaner element.

Check condition of spark plugs.

Check front brake pad wear and brake hoses.

Check ball joint boots of steering linkage and track control arms.

Lubricate headlight hinges.

Every 60 000 km (or two years): Renew water-Paraflu 11 mixture.

NOTICE

- The Programmed Maintenance operations should be carried out at least once a year even if the prescribed mileage has not been covered.
- If the vehicle is used mainly in city traffic, in dusty or hilly territories, with caravans or trailers on tow or under adverse climatic conditions, the operations which are due at 10 000 km intervals should be performed more frequently.
- Operating anomalies such as leaks of essential fluids must be corrected immediately.

DO-IT-YOURSELF SERVICING

The following pages will give you instructions on how to perform minor servicing operations in a technically correct way.

Engine Oil

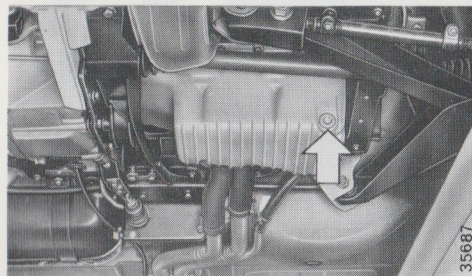
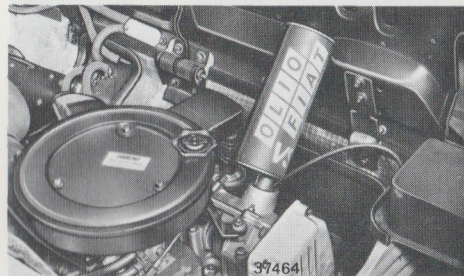
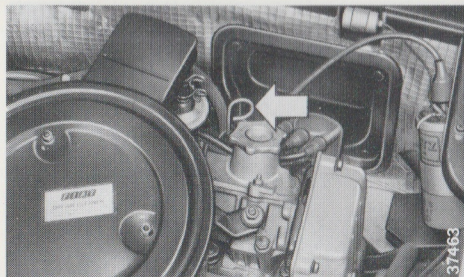
When checking the engine oil level the car should be standing on level ground. If the engine has been run immediately prior to making an oil level check wait at least 10 minutes after switching off. Withdraw the dipstick, wipe it dry, replace it and again withdraw it. The correct level is between "MIN" and "MAX" marks on dipstick. If necessary, oil should be added through the filler orifice.

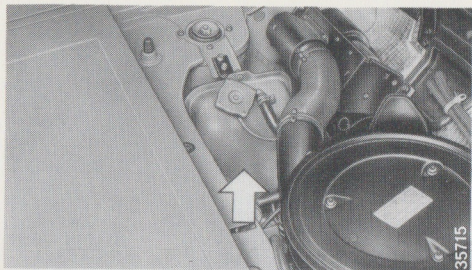
Sump capacity from "MIN" to "MAX" marks of dipstick is 1 kg approx. To drain the sump place a large bowl or other shallow container on the floor, remove the oil filler plug, the dipstick and the sump drain plug (see opposite figure). When changing the oil also renew the filter.

If the car is used mainly in city traffic or dusty territories, instead of changing the oil at the mileage stated in the Routine Maintenance schedule, it may be found advisable to change it at an interim period.

Drain the oil with engine warm.

Engine oil changing is an operation included in the FSC.

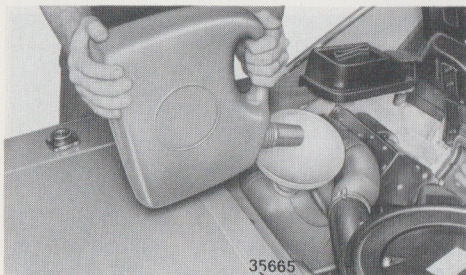




Engine Coolant

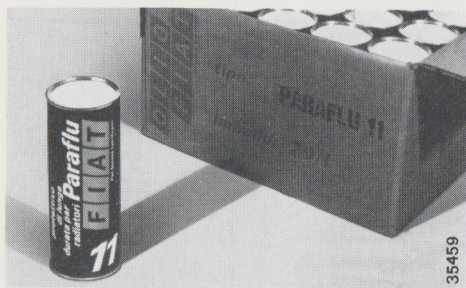
The coolant level in the expansion tank should be checked with engine cold. The correct level is 2/3 full.

Top up exclusively through the expansion tank.



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

Do not remove the expansion tank cap if the engine is hot, as the sudden release of hot vapour could scald you.

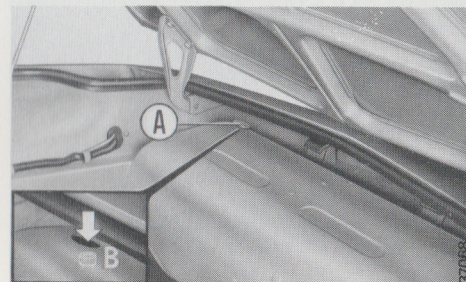
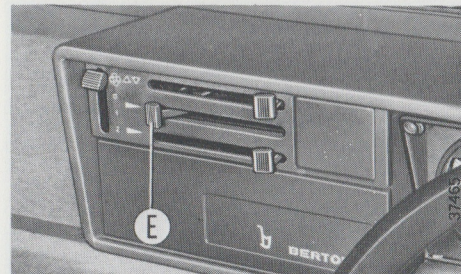


At the beginning of the cold season have the water-**Paraflu 11** mixture strength checked.

Water-**Paraflu 11** mixture allows the use of hard or chlorinated water, incorporates oxidation, corrosion, foam and scale control properties and needs renewing after 60 000 km or two years.

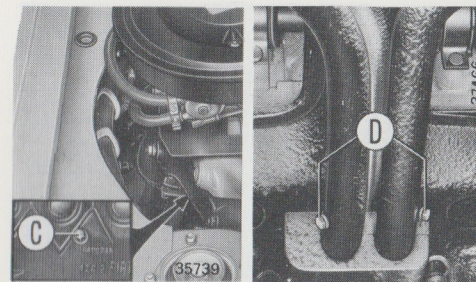
To Drain the Cooling System

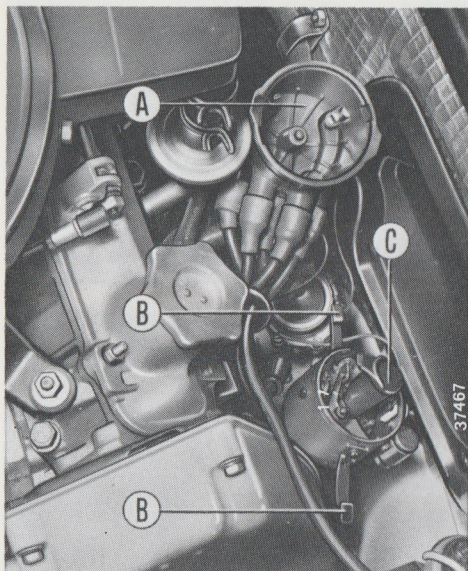
- Move heater temperature control lever E completely to the left.
- Remove radiator plug B accessible after removing rubber cap A.
- Remove expansion tank cap (see page 42) and drain plug C, on cylinder head, alternator side.
- Take off two drain plugs D.



To Fill the Cooling System

- Refit plugs D and close valve C.
- Pour the coolant slowly into expansion tank until the coolant issues from the bleed screw.
- Refit radiator cap B.
- Complete filling the expansion tank.
- Start the engine and accelerate to bring about water recirculation in the radiator.
- Switch off the engine and bleed the system through the bleed screw. When the coolant is free from bubbles retighten the screw.
- Finally, recheck the coolant level with engine cold.



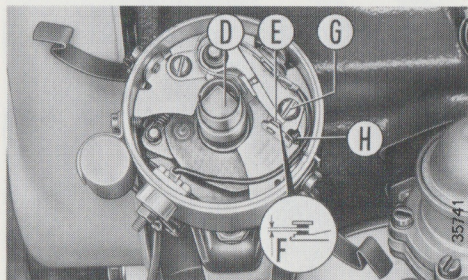


Ignition Distributor

Lubrication

Remove retainers B, cap A, rotor C and put a few drops of engine oil on felt pad D.

If contacts E are oily clean them with a gasoline-moistened rag, lint-free.



Contact Gap

Correct gap F is 0,37 to 0,43 mm. To adjust the gap, slacken screw G, insert a screwdriver in slot H and turn the contact breaker base-plate as necessary. Retighten the screw.

Spark Plugs

To remove the plugs first detach HT leads A.

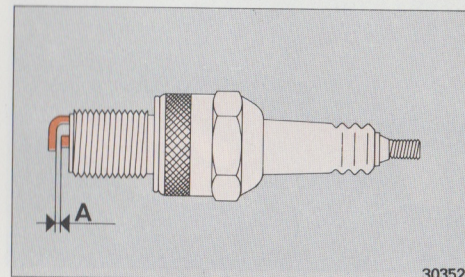
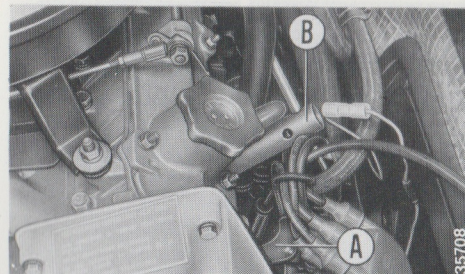
Use only spanner B provided.

From time to time check whether the plugs are clean. If not, carefully clean them by removing all deposits accumulated at the base of the centre electrode.

Also check gap A with a feeler gage (0,7 to 0,8 mm).

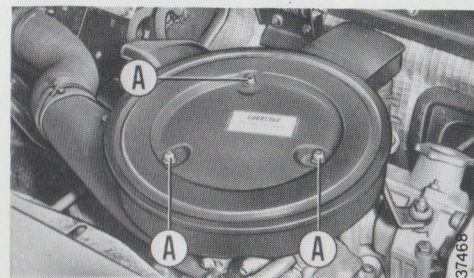
If necessary adjust through the side electrode so as not to damage insulator.

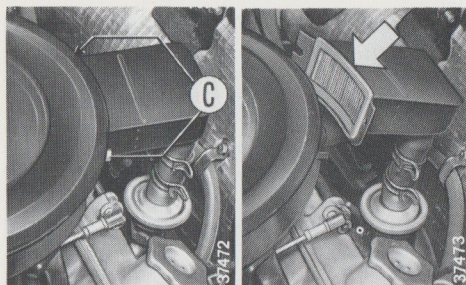
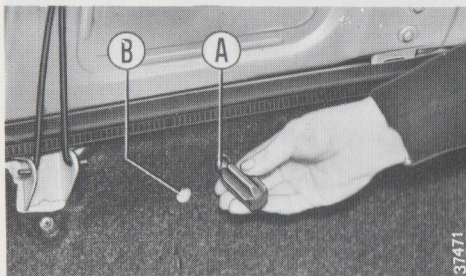
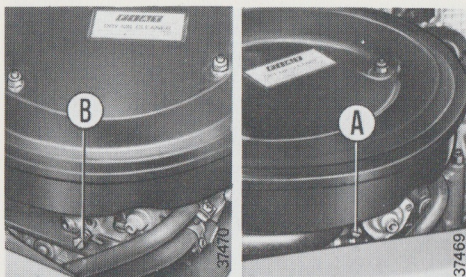
When renewing the plugs make sure the new ones are of the recommended type.



Air Cleaner

To renew the filtering element release three wing nuts A and remove the cover. Should the car be used mainly in dusty territories it may be found advisable to renew the element at an interim period with respect to the mileage recommended in the "Programmed Maintenance Plan".





Carburetor

If necessary, adjust slow running speed through throttle stop screw A.

Slow running speed can be easily adjusted working from the engine compartment or from the rear trunk through hole A (right side, up) using a long-tip screwdriver.

If slow running speed cannot be satisfactorily adjusted through throttle stop screw A, contact a Fiat Dealer which will adjust speed through the volume adjustment screw B.

Screw B can be reached through hole B on firewall (left side, down).

Reed Valve Air Filter

Reed valve air filter container is secured to engine air cleaner body.

To gain access, undo nuts C.

To take out the filter pull the seal.

When carrying out engine compartment inspections make sure air hoses to cylinder head are in good condition.

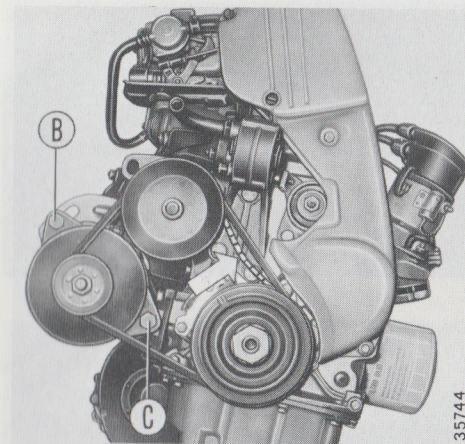
Alternator and Water Pump Belt

The belt should be checked for wear and correct tensioning. You should be able to depress the belt 10 mm when firm thumb pressure is applied (see A).

To adjust belt tension proceed as follows:

- Slacken nut B.
- Slacken pivot C.
- Swing the alternator as required and retighten the nuts.

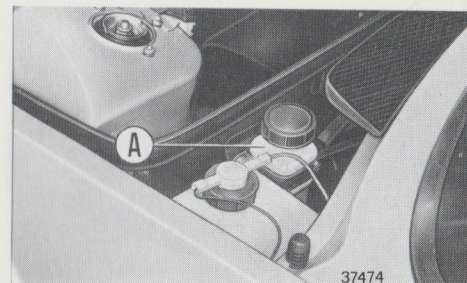
Remember that over-tensioning could result in premature bearing wear.

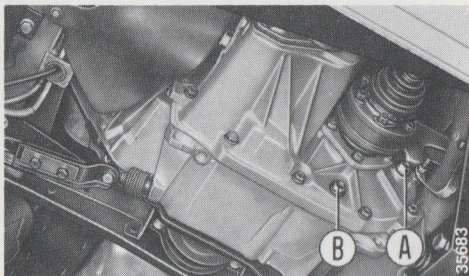


Clutch

The clutch is hydraulically operated, without pedal free play. Clutch fluid inspection can be carried out through reservoir A. The recommended clutch fluid is the **Liquido Fiat Etichetta Azzurra DOT 3**. Do not use other fluids, otherwise the rubber seals will be damaged beyond repair.

Do not allow the clutch fluid to drip on paintwork since it may be corrosive.



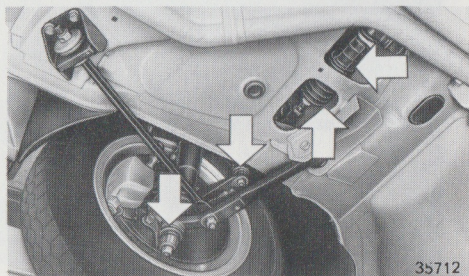


Transaxle

The correct oil level is up to the lower edge of filler A.

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

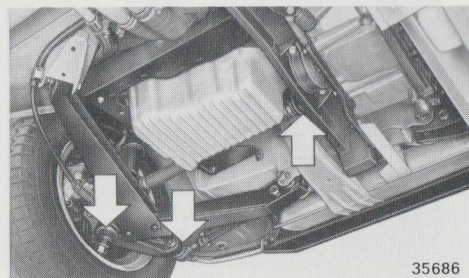
Use Oliofiat **ZC 90**.



Front Suspension and Steering Linkage Ball Joints

When carrying out underbody inspection, check that steering linkage/track control arm ball joints boots and rack bellows are in good condition.

Inefficient joints can impair driving safety.



Rear Suspension Track Control Arms

When carrying out underbody inspection, check that ball and CV joints boots are in good condition.

Inefficient joints can impair driving safety.

Brakes

Inspection of fluid level in reservoir can be carried out without removing the cap.

Periodically, check indicator light B (see page 10) efficiency by depressing the reservoir cap with ignition key at MAR.

The recommended brake fluid is the **Liquido Fiat Etichetta Az-zurra DOT 3**. Do not use other fluids, otherwise the rubber seals will be damaged beyond repair.

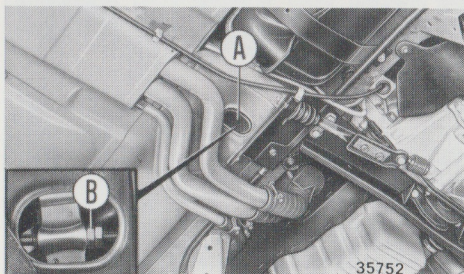
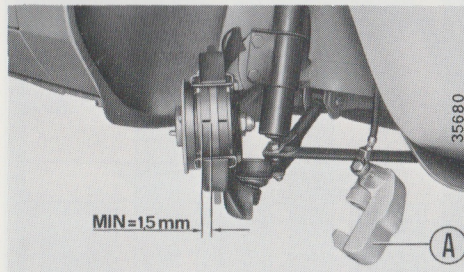
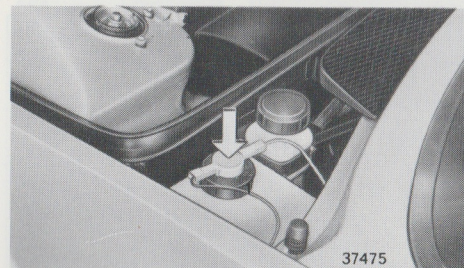
Do not allow the brake fluid to drip on paintwork since it may be corrosive.

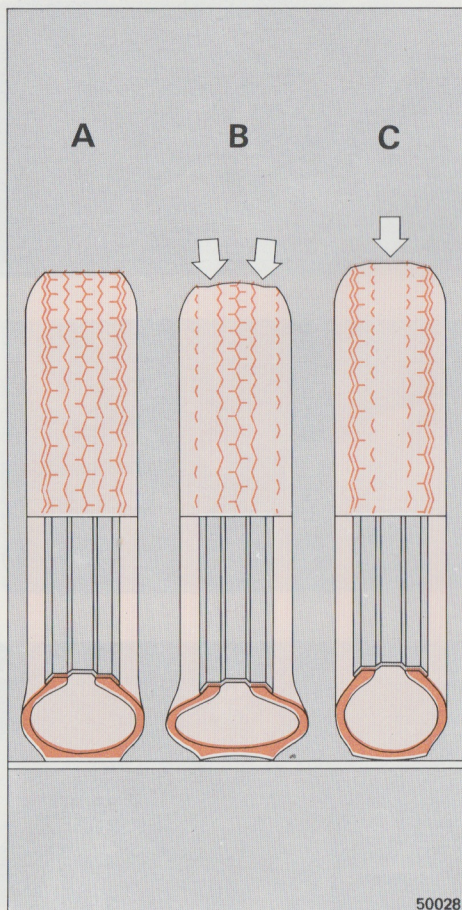
When friction pads housed in caliper A have worn down to a thickness of approx. 1,5 mm they need renewing.

Handbrake

If excessive lever travel does become apparent, proceed as follows.

- Remove plug A from the underside of the car.
- Tighten tensioner B until ropes C are made taut and block the tensioner with the locknut.
- Firmly apply the handbrake a few times and check that the lever engages only 4 to 5 teeth of the ratchet and that the rear wheels spin freely with the lever in the fully "off" position.





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Tires

Maintain the correct inflation pressures by checking with a reliable gage.

The recommended tire pressures are given on page 77.

A - Correct inflation: Even tire wear.

B - Under-inflation: Excessive wear on the tire shoulders.

C - Over-inflation: Increased wear on the center of the tread.

Check pressure when the tires are cold.

The minimum safe tire tread depth is 1 mm.

If your tires are provided with tread wear indicators, renew as soon as the wear indicators are visible.

Also check tire sidewalls for cuts and uneven wear. Special equipment is available to FIAT Dealers, which enables them to diagnose the cause of excessive tire wear.

Do not reposition tires or road wheels in a criss-cross fashion.

Battery

Check the electrolyte level with a cold battery. The level should never be allowed to fall below the "LIVELLO DELL'ELETTROLITO".

To top up remove the vent cover, pour distilled water into the trough (not through vents) until the water begins to collect in the bottom of the trough.

In hot climates check the electrolyte level more frequently.

The shape of the trough can vary according to battery manufacturer.

Do not drive the car or recharge the battery with the cover removed.

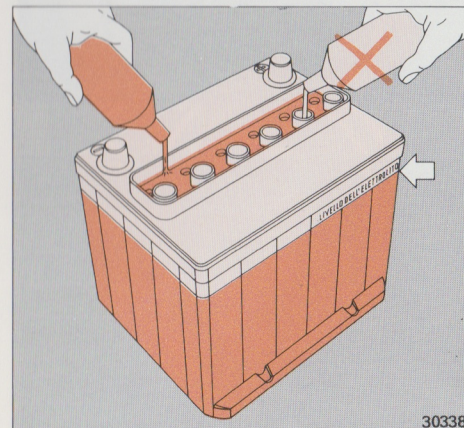
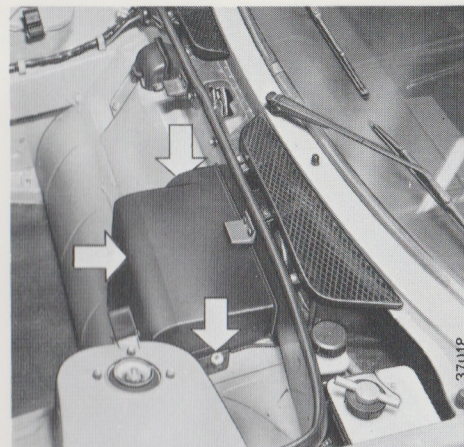
When engine starting requires the use of a second "boost" battery, this must be connected in parallel with the vehicle battery - positive to positive and negative to negative - using heavy duty cables and clamps.

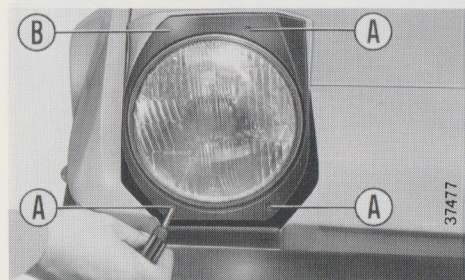
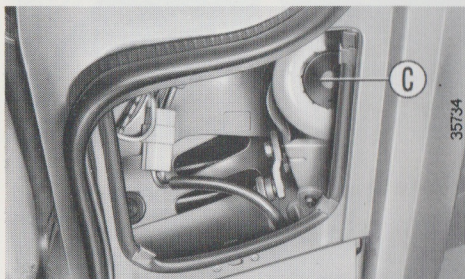
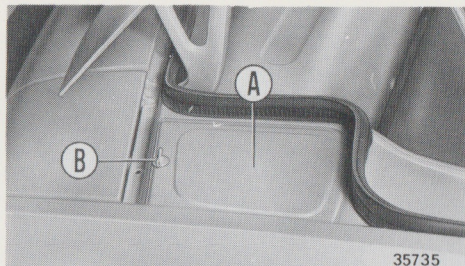
As soon as engine is started, disconnect the boost battery with engine idling.

In very cold weather avoid connecting a completely discharged battery to a boost battery as this latter could be damaged.

The battery must be disconnected from both cables on the car before connecting a charger.

As your car incorporates electronic devices never run the engine with a disconnected battery, otherwise serious damage will result.





Pop-up Headlamps - Manual Operation

Provision has been made for manually raising or lowering the headlamps should the drive mechanism fail to operate for any reason.

Proceed as follows:

- Open the front trunk, remove cover A and turn wing nut B through 90°.

- To raise or lower the lamp turn knob C as necessary.

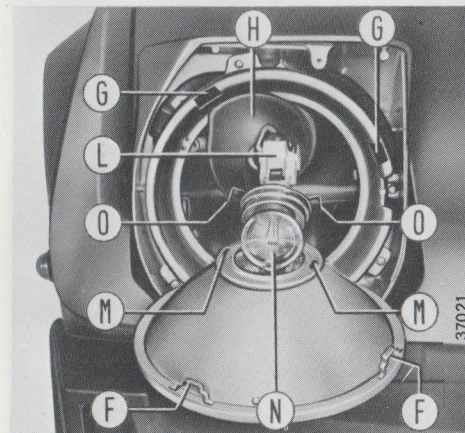
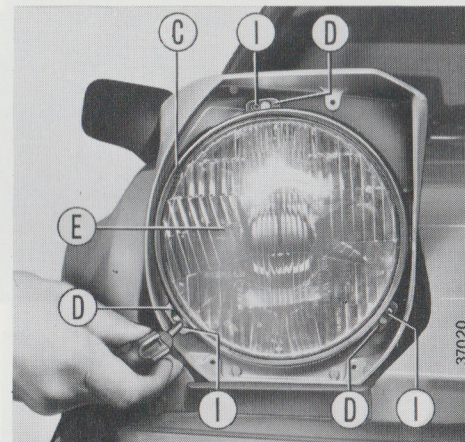
BULB RENEWAL

Headlights

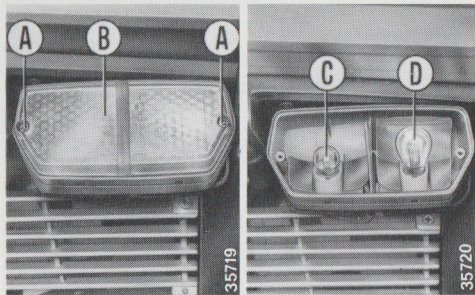
The bulbs (40/45 W) may be reached from inside the front trunk. To renew proceed as follows:

- Take off screws A and withdraw carrier B.

- Slacken screws I
- Turn rim C counter-clockwise and remove when slots D and screws I register.
- Take out lamp unit E.
- Remove rubber seal H and disconnect terminal L.
- Release ends O of the clip from holes M and take out bulb N.
- Insert the new bulb (40/45 W) ensuring that pegs engage the associated slots in the lamp body.



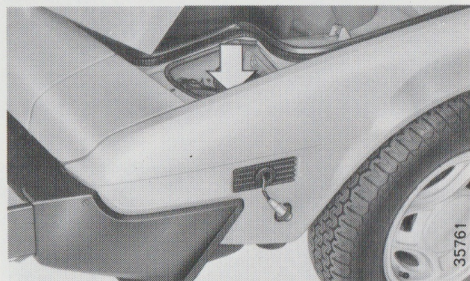
To refit, reverse the removal procedure and remember that registers F can be driven home (seats G) only when lamp unit E is correctly positioned with respect to the body.



Front Parking/Turn Signal Indicator Lamps

To gain access to front parking bulb C (5 W) or to turn signal bulb D (4 W) remove screws A and lens B.

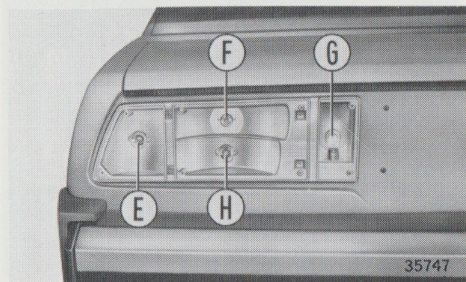
Bulbs are of the bayonet-coupled type.



Repeater Lamps

The bulb cannot be removed separately. In case of failure renew the complete unit.

To remove free the spring retainers from the inside of each headlight motor recess and pull unit towards the outside.



Tail, Stop, Turn Signal and Backup Lamp

To gain access to bayonet-coupled bulbs remove the screws securing the lens.

E = Turn signal bulb (21 W).

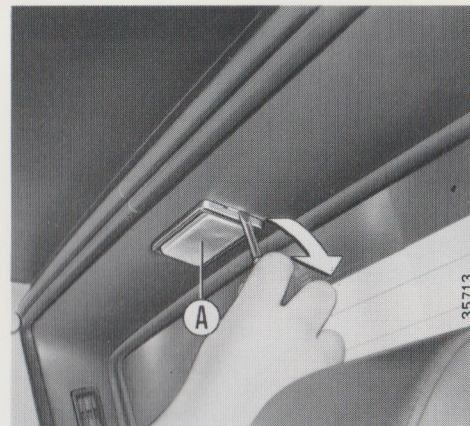
F = Tail light bulb (5 W).

G = Backup light bulb (21 W).

H = Stop bulb (21 W).

Courtesy Light

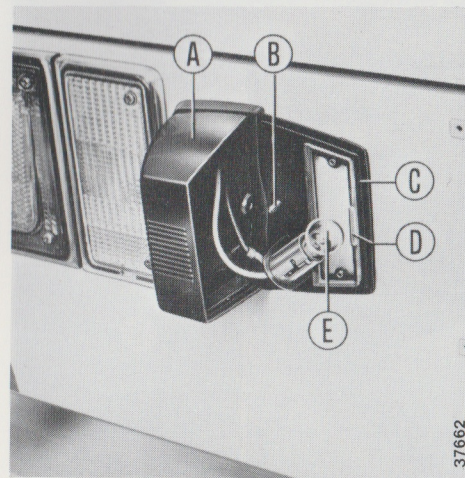
To gain access to the 5 W bulb, remove snap-type lens A using a screwdriver as shown in the opposite figure.



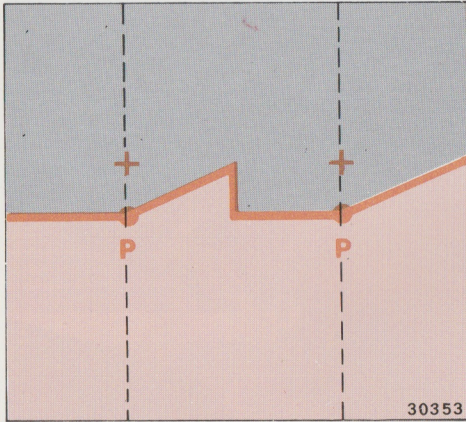
35713

License Plate Lamps

To reach bayonet coupled bulb E slacken screw B and remove lens-body unit C. To fit back the lens first reposition lug D in the associated recess in lens A.



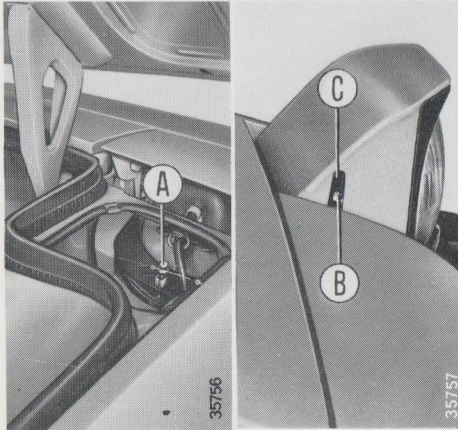
37662



Headlight Alinement

Check alinement whenever headlights are removed or replaced. Where an Owner wishes to align the headlights himself, a fair degree of accuracy can be attained by using the following method.

- Check that the tire inflation pressures are as prescribed and place the unladen car on a level surface in front of a bright wall.
- Draw crosses on the wall corresponding to headlight center.
- Back the car 5 m from the shield and switch on the dipped beams. Reference points P-P should lie 3.5 cm below the associated cross marks on the shield.
- For horizontal adjustment turn screw B through slot C. For vertical adjustment turn screw A through each headlight drive motor recess.



Panel and Indicator Lights

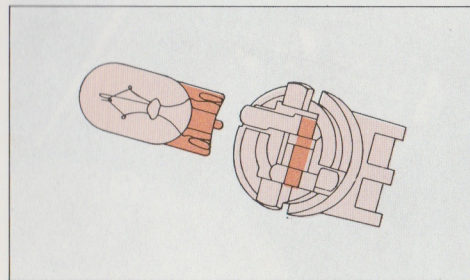
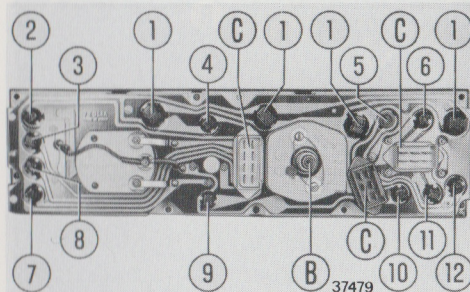
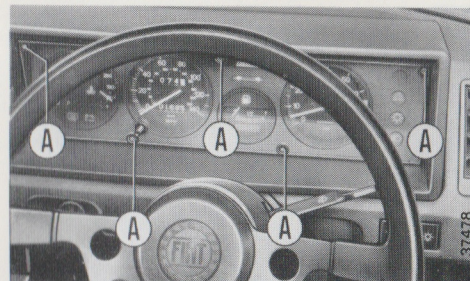
The bulbs may be reached after removing the instrument panel complete.

- Remove five retaining screws A.
- Extract the panel from the fascia.
- Disconnect the speedometer cable from housing B and panel connectors C.

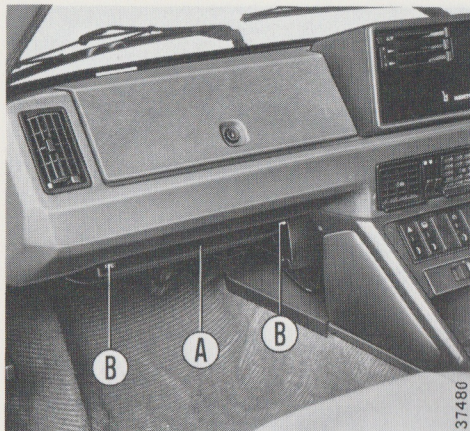
Wedge-coupled bulb holders are of the bayonet-coupled type.

- 1 Panel lighting bulbs.
- 2 Spare indicator bulb.
- 3 Hazard warning light bulb (if fitted).
- 4 Turn signal indicator bulb.
- 5 "BRAKE" indicator bulb.
- 6 "PARK BRAKE" indicator bulb.
- 7 High beams indicator bulb.
- 8 Parking and tail lights indicator bulb.
- 9 Fuel reserve indicator bulb.
- 10 Battery charge indicator bulb.
- 11 Back window demister indicator bulb.
- 12 Engine oil pressure indicator bulb.

All bulbs are rated 1.2 W except panel lighting bulbs which rate 3 W.



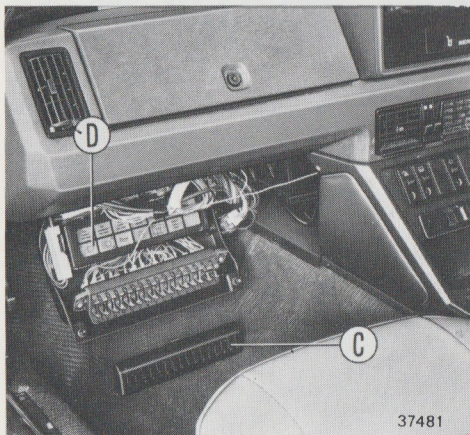
30609



Fuse Unit

Two 3-A, eight 8-A, four 16-A plus one 8-A in-line fuse and two 16-A spare fuse, located in housing A.

Access to the fuses is gained by freing ends B, and removing cover C.



Cover C carries fuse identification numbers.

Plate D carries the ideograms of control relays.

The protected circuits are listed on pages 69-70.

Before renewing a blown fuse, locate and rectify the fault.

Windshield Washer

The windshield washer container is stowed in the left-hand headlight motor recess. Check level frequently and replenish as necessary. If the nozzles fail to operate clean the orifice by means of a pin.

To assist in cleaning the windshield it is recommended that **DP 1** liquid be added to the washer bottle.

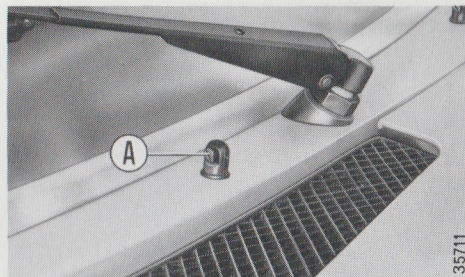
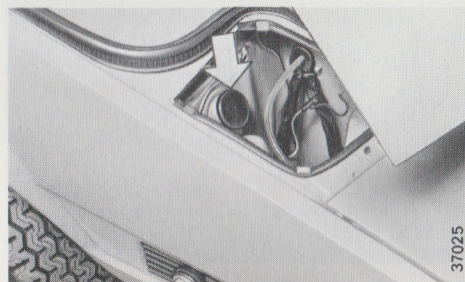
Should nozzle adjustment be necessary turn both the body and side nozzle A with a screwdriver until the jet strikes the top of the swept area of the shield.

Windshield Wiper

To remove a blade:

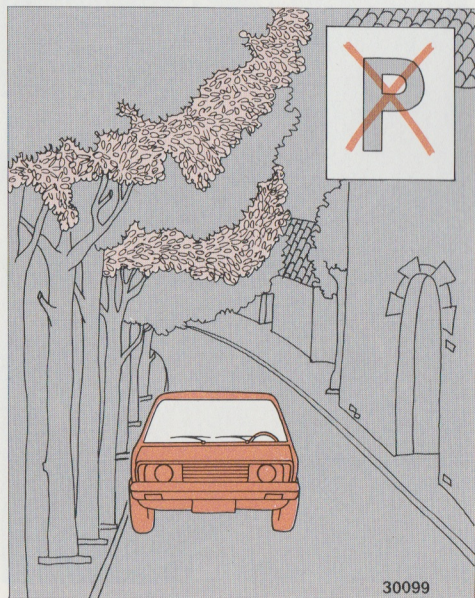
- Swing the wiper arm clear of the shield.
- Release blade carrier A from peg B by freeing the clip in the center and lift off the blade assembly.

To clean the rubber blade use **DP 1** liquid or alcohol.





30092



30099

CAR CARE

Exterior

When washing the car, use plenty of cold or lukewarm water and, if you use a hose, avoid directing it at full force against the body.

Wash off with a sponge dipped in a mixture of 100 g of **Shampoo FIAT SDB** and 5 dm³ (litres) of water. Rinse thoroughly and dry off with a clean chamois leather.

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

An occasionally light polish with an approved silicone car polish will give the paintwork extra protection. Body paint touch-ups shall be performed exclusively with original paint (see pages 6 and 65).

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

If the car is parked under trees wash the bodywork very frequently.

To preserve the rubber seals of doors, hood and trunks use silicone grease. This will also prevent squeaking, particularly in cold climates.

Interior

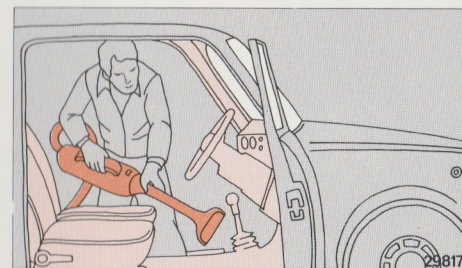
To remove dirt from leathercloth coverings use a damp sponge and a good quality neutral soap.

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



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

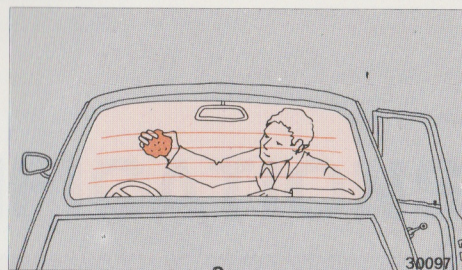
To remove grease spots from cloth coverings use a good brand of stain remover, apply talc liberally, allow to stand and brush off.



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

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

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



SPECIFICATIONS

IDENTIFICATION DATA

A		38188
B		
C	☆ D	
E Kg		
F Kg		
1-	G Kg	
2-	H Kg	N
MOTORE - ENGINE I		
VERSIONE - VERSION L		
N° PER RICAMBI - N° FOR SPARES M		

Manufacturer's plate

- | | | | |
|---|--|---|---|
| A | Name of manufacturer | G | Maximum permitted road weight, front axle |
| B | EEC type-approval number | H | Maximum permitted road weight, rear axle |
| C | Manufacturer's code and type of vehicle | I | Engine type |
| D | Vehicle identification number | L | Body type |
| E | Maximum permitted laden weight of vehicle | M | Number for spares |
| F | Maximum permitted laden weight for vehicle and trailer combination | N | Space reserved for Diesel vehicles |

VEHICLE EMISSION CONTROL INFORMATION		4416846
FIAT AUTO S.P.A. - FIAT - ENGINE FAMILY 138-A - CM ³ 1498		
EXHAUST EMISSION CONTROL TYPE: PAI		
ENGINE TUNEUP SPECIFICATIONS AND ADJUSTMENTS WITH TRANSMISSION IN NEUTRAL		PROPER MAINTENANCE IS ESSENTIAL FOR CONTINUED EFFECTIVENESS.
BASIC IGNITION TIMING 5° BTDC AT 800-850 RPM		
IDLE SPEED (RPM)	850 ± 50	FOR FURTHER INSTRUCTIONS REFER TO BOOKLET PRINT NO. 503.839 - EDITION I - 1979 SUPPLEMENT TO DATA AND CHARACTERISTICS PRINT NO. 503.795.
IDLE CO SETTING	1 ± 0.5%	
DWELL	55° ± 3°	38081
SPARK PLUG GAP (MM)	0.7 to 0.8	

Vehicle Emission Control Information Tag

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

Chassis Type 128 AS.1

Chassis Number

Engine Type 138 AS.023

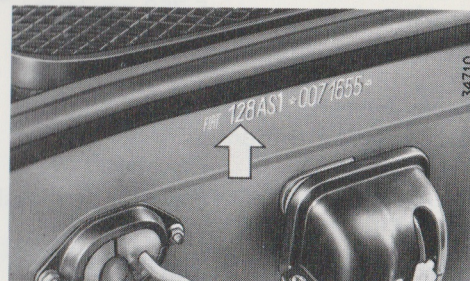
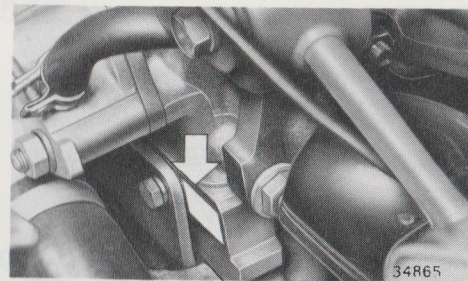
Engine Number

Paintwork Label

A Paint make

B Color name

C Color code



50024

VERNICIATURA ORIGINALE PEINTURE ORIGINALE ORIGINAL PAINTING ORIGINALLACKIERUNG	<div style="font-size: 2em;">▶</div> <div style="border: 1px solid black; padding: 2px 10px; display: inline-block; color: red; font-weight: bold;">A</div>
COLORE - TEINTE COLOUR - FARBTON	<div style="border: 1px solid black; padding: 2px 10px; display: inline-block; color: red; font-weight: bold;">B</div>
CODICE CODE	<div style="border: 1px solid black; padding: 2px 10px; display: inline-block; color: red; font-weight: bold;">C</div>

ENGINE

Type	138 AS.023
No. of cylinders	Four, in-line
Bore x stroke	86,4 x 63,9 mm
Displacement	1 498 cm ³
Compression ratio	9,2 to 1
Maximum torque	118 N·m (12 kgm)
— at	3 250 rev/min
Maximum power	
(DIN)	58,8 kW (80 HP)
— at	5 750 rev/min

Valve Gear

Valve position	Overhead
Operation	Overhead camshaft
Drive	Toothed belt
Intake opens	10° B.T.D.C.
Intake closes	54° A.B.D.C.
Exhaust open	54° B.B.D.C.
Exhaust closes	10° 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
Carburetor	Weber 32 DATRA 23, dual-barrel downdraft, automatic choke, accelerator pump
	Carburetor cooling fan controlled by thermal switch
— Normal idle setting	850 ± 50 rev/min
— CO concentration at idle	1% ± 0,5%
Anti-pollution aids	Reed valve supplying an airflow to the exhaust manifold

Dashpot for the 1st throttle
Positive crankcase ventilation system
Fuel evaporative emission control

Lubrication

Type	Forced-feed, pressure relief valve
Oil pump	Gear
Oil filter	Full-flow, replaceable cartridge

Ignition System

Firing order	1-3-4-2
Static advance	5° B.T.D.C.
Centrifugal advance	23°
Contact point gap	0,40 ± 0,03 mm

Spark plugs

— Type

Fiat 1 L 45 JR
Marelli CW 78 LPR
Bosch W R 6 D (W 200 TR30)
Champion RN 7 Y
AC R 412 x LS

— Thread size	M 14 x 1,25
— Electrode gap	0,7 to 0,8 mm

Cooling System

Type	Horizontal flow radiator, expansion tank
Water pump	Centrifugal
Fan	Electric, controlled by temperature switch on radiator
— Cut-in temperature	92° C ± 2° C
Thermostat	Controlled-bypass, on engine water outlet

TRANSMISSION

Clutch

Operation	Hydraulic, self-adjusting, with no pedal free travel
-----------	---

Gearbox

Type	Five-speed, all-synchromesh
Gear ratios	First 3,583 to 1 Second 2,235 to 1 Third 1,454 to 1 Fourth 1,042 to 1 Fifth 0,863 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	13/53

BRAKES

Service

Type	Disc-all-round, split circuit, single cylinder sliding calipers, self-adjusting
------	--

Handbrake

Type	Mechanical, lever-operated, acting on rear wheels
------	--

SUSPENSIONS

Front	Independent, strut-and-link, tie rods, coil springs, sealed-for-life joints
Rear	Independent, strut-and-link, lower wishbones, coil springs, cushioned sealed-for-life joints, adjustable transverse links

STEERING

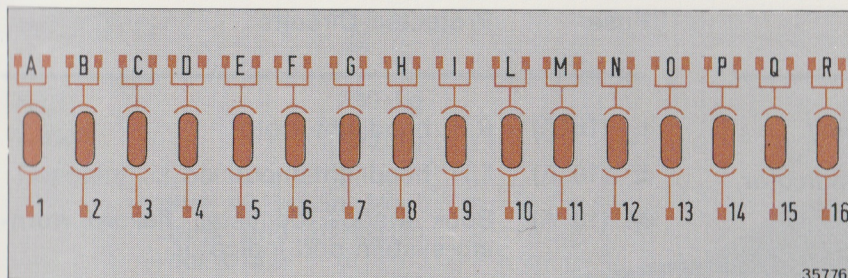
Steering wheel position	R.H.D.
Type	Rack and pinion
No. of turns, lock-to-lock	~ 3
Rack stroke	117 mm
Column	Collapsible, two universal joints
Linkage	Twin track rods, sealed-for-life joints
Turning diameter	10 m

WHEEL GEOMETRY

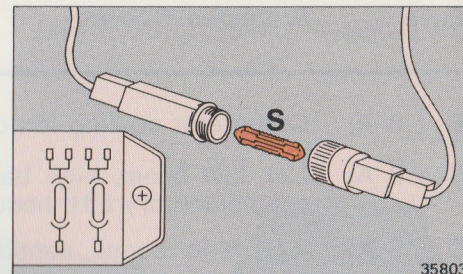
Camber	
— Front	0° to — 1°
— Rear	— 0° 45' to — 1° 45'
Toe-in (over rims)	
— Front	2 to 6 mm
— Rear	5 to 9 mm

WHEELS AND TIRES

Wheel type	Pressed steel disc
— Rim type	5 J x 13"
Tires	
— Type and size	Radial-ply (165/70 SR-13)



35776



35803

ELECTRICAL SYSTEM (12 V)

Battery

Earth Negative

Capacity (at 20-hour discharge rate) 45 Ah

Heavy discharge rating (at — 18°C) 185 A

Alternator

Type Nine-diode plate with integral electronic voltage regulator

Continuous rating 55 A

Cutting-in speed Upon starting (with loads off)

Fuse Unit

Fuse	Protected Circuits
------	--------------------

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, "BRAKE" indicator, "PARK BRAKE" indicator, fuel reserve indicator, tachometer, fuel gage, digital clock lighting, windshield wiper motor, windshield washer pump, back-up lamp.
----------	--

Fuse	Protected Circuits
B (8 A)	Carburetor cooling fan and relay
C (8 A)	L.H. low beam, high beams indicator, supplementary L.H. headlight
D (8 A)	R.H. high beam, supplementary R.H. headlight
E (8 A)	L.H. low beam
F (8 A)	R.H. low beam
G (8 A)	Front L.H. parking light, R.H. rear parking light, parking light indicator, cigar lighter light, L.H. license plate light
H (8 A)	Digital clock dimmed lighting, front R.H. parking light, L.H. rear parking light, R.H. license plate light

Fuse	Protected Circuits
I (16 A)	R.H. headlight motor
L (16 A)	L.H. headlight motor
M (16 A)	Back window demister, hazard warning system and indicator
N (16 A)	Horn and relay, radiator fan
O (16 A)	Spare
P (16 A)	Spare
Q (3 A)	Pop-up headlight control relay coil (closing)
R (3 A)	Pop-up headlight control relay coil (opening)
In-line fuse	
S (8 A)	Cigar lighter, clock, courtesy light

WEIGHTS

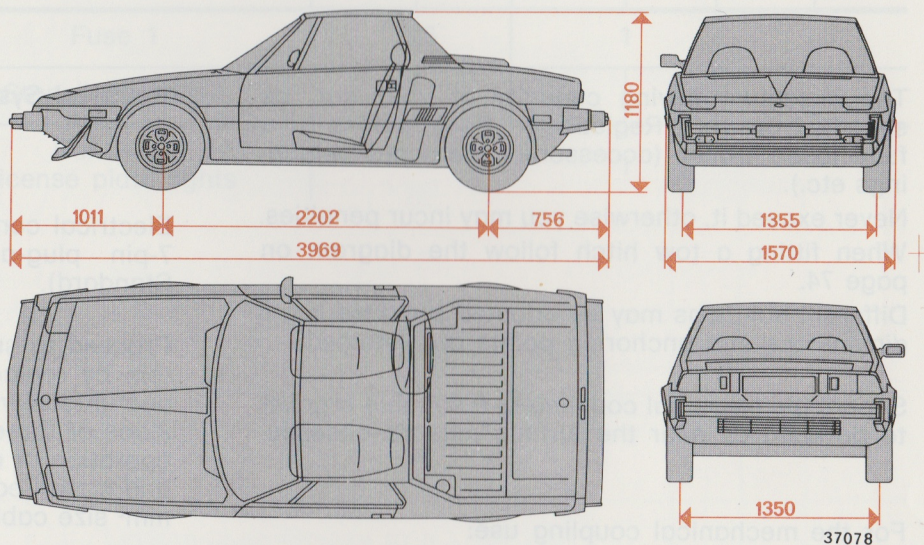
Kerb	930 kg
Laden	1150 kg
Capacity	2 occupants plus 40 kg in front trunk and 20 kg in rear trunk

PERFORMANCE DATA

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

	Speeds	Gradients
	km/h	%
First	45	45
Second	75	25
Third	115	15
Fourth	160	9
Fifth	~ 170	7
Reverse	45	45

DIMENSIONS (Unladen car)



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

FITTING A TOW HITCH

The maximum towing capacity of your car, as specified on your Registration Book, refers to a fully laden trailer (accessories, personal belongings etc.).

Never exceed it, otherwise you may incur penalties. When fitting a tow hitch follow the diagram on page 74.

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 direction 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 bracking 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

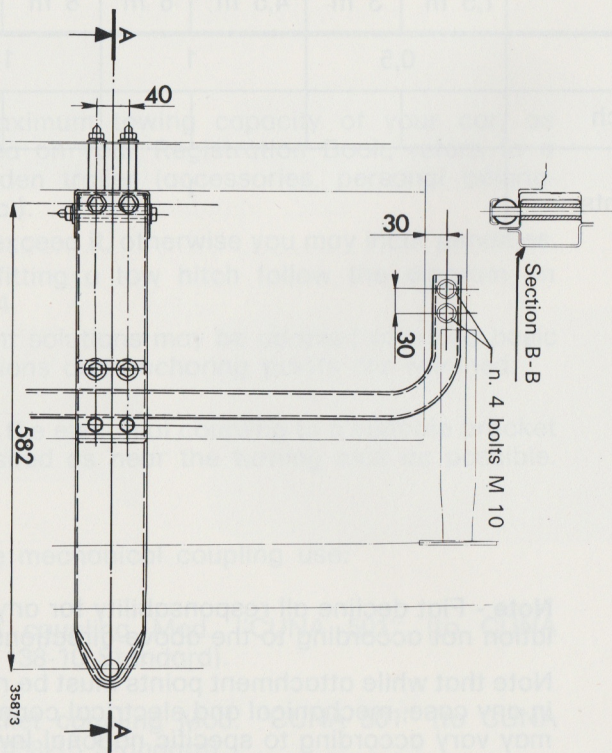
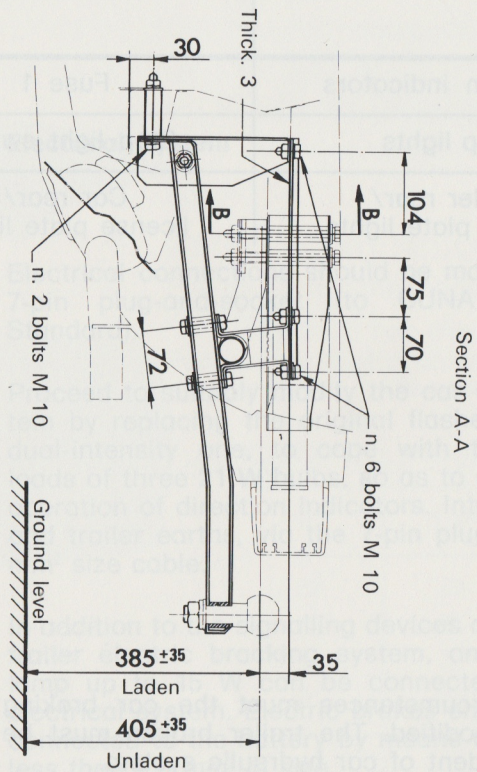
Load	Power Point	Min. cable size (in mm ²) versus max. length					
		1,5 m	3 m	4,5 m	6 m	8 m	10 m
Direction indicators	Fuse 1	0,5		1		1,5	
Stop lights	Stop light switch						
Trailer rear/ license plate lights	Car rear/ license plate lights	1					

Brakes

Under no circumstances must the car braking system be modified. The trailer brakes must be fully independent of car hydraulic system.

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.



RECOMMENDED LUBRICANTS AND FLUIDS

OLIOFIAT DESIGNATION	INTERNATIONAL DESIGNATION
Oliofiat VS⁺ (*)	Low-ash Detergent Oils - Api Service SE - CC To MIL-L-46152, and above CCMC Sequence
Oliofiat ZC 90	SAE 80 W/90 Oil (not EP) containing anti-wear additives for manual transmissions
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 MRM 2	Lithium-base Grease with molybdenum disulphide to N.L.G.I. No. 2
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

(*) See "Capacities" for grades.

CAPACITIES

	(litres) dm ³	kg	Type of FIAT Recommended Fluid
Fuel	49	—	{ 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)
including a reserve of	7,5	—	
Coolant (incl. heater)	11,6	—	Water and Paraflu 11 mixture ⁽¹⁾
Engine oil (incl. filter)	4,5	4	Olio fiat VS⁺ (See page 75)
Transaxle oil	3	2,7	Olio fiat ZC 90
Constant velocity joint and boot grease (each)	—	0,10	Grassofiat MRM 2
Steering oil	0,14	0,12	Olio fiat W 90/M
Front/rear brake fluid	0,32	0,32	{ Liquido FIAT Etichetta Azzurra DOT 3
Clutch fluid	0,18	0,18	
Screen washer liquid	2	—	Water and DP 1 ⁽²⁾

⁽¹⁾ Water and **Paraflu 11** mixture incorporates oxidation, corrosion, foam and scale control properties and is effective down to — 35° C when mixed half-and-half with water.

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

Atmospheric Temperature	Olio fiat VS ⁺ Above CCMC Sequence	
Below — 15° C	VS ⁺ 10 W (SAE 10 W)	VS ⁺ 15 W/40 SAE 15 W/40 (Multigrado)
— 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. The tabulated value on page 76 is the requirement for periodic oil changing.

Total lubricating system capacity when factory filled is 5 dm³ (4,5 kg).

Filter capacity is 0,64 dm³ (0,58 kg).

TIRE INFLATION PRESSURE

Front	1,76 bar (1,80 kg/cm ²)
Rear	1,96 bar (2,00 kg/cm ²)

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