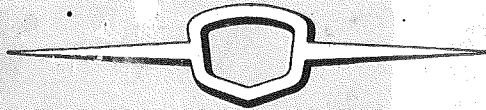


FIAT
the new
500
TYPE 110



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PRINTED IN ITALY - Print No. 300.938 - II-1960 - 6000 - S. A. N. Torino

INSTRUCTION BOOK

7th EDITION

FIAT
the new
500
TYPE 110

▶ **S U N R O O F**

▶ **C O N V E R T I B L E**

▶ **S P O R T**

DIPARTIMENTO NORME E PUBBLICAZIONI

Presentation

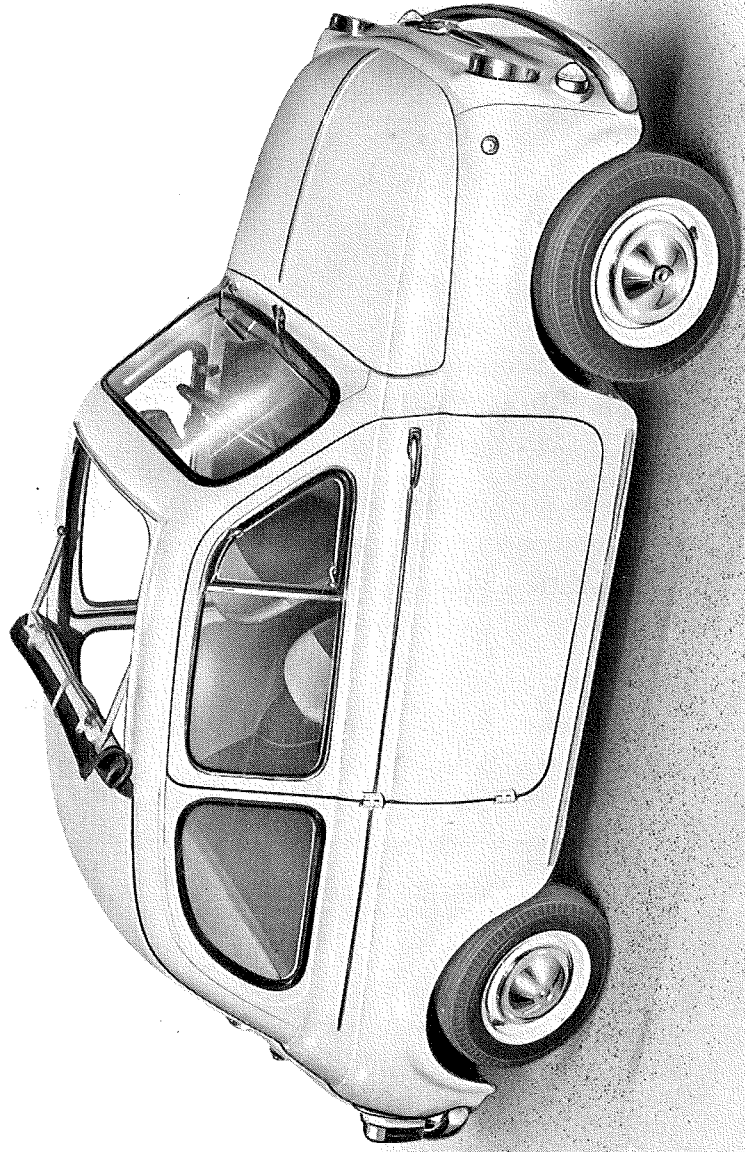
*The « **new 500** » is an economic, ultrautility car that will account for an even greater success of a world-renowned FIAT automobile: the originative « 500 » built in 1936 which was the founder of FIAT's small utility car line.*

*In the « **new 500** » the efficiency, utility and economy of a minicar — yet, a true automobile — realize an outstanding technical and constructional progress in the automotive field.*

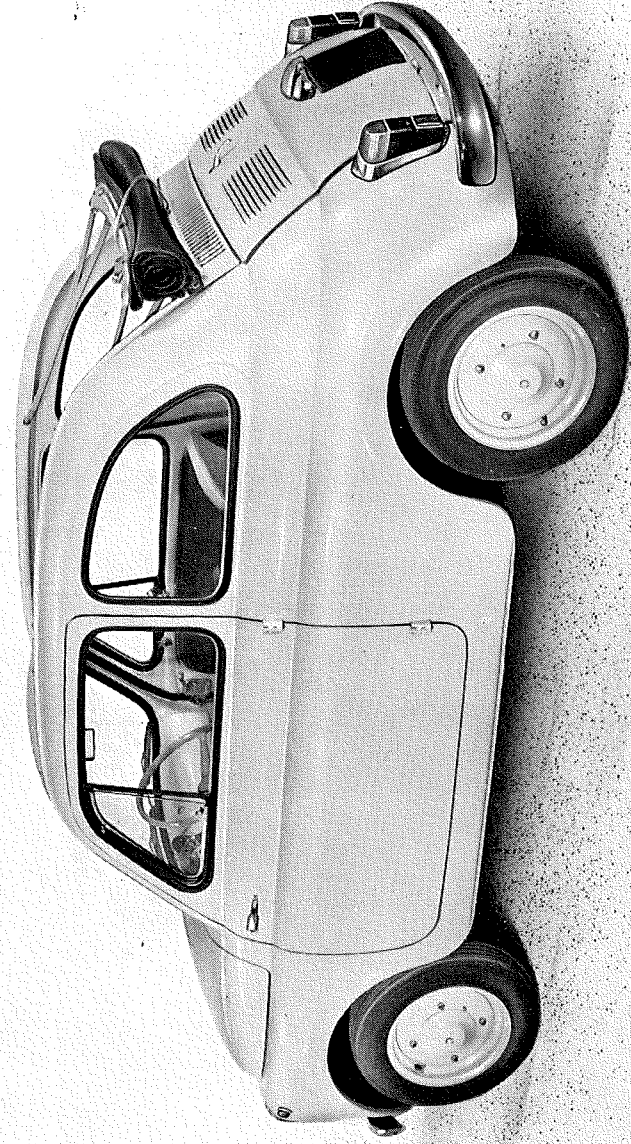
*This booklet on its operation and maintenance will instruct thousands of new motorists because the « **new 500** » brings the automobile within reach of wider classes of the buying public for enjoyable business, vacation and family motoring.*

*This booklet illustrates the features of the New 500 **Sun-Roof Model**; general instructions common to any type of car are contained in the accompanying publication « **Safe Motoring Hints** ».*

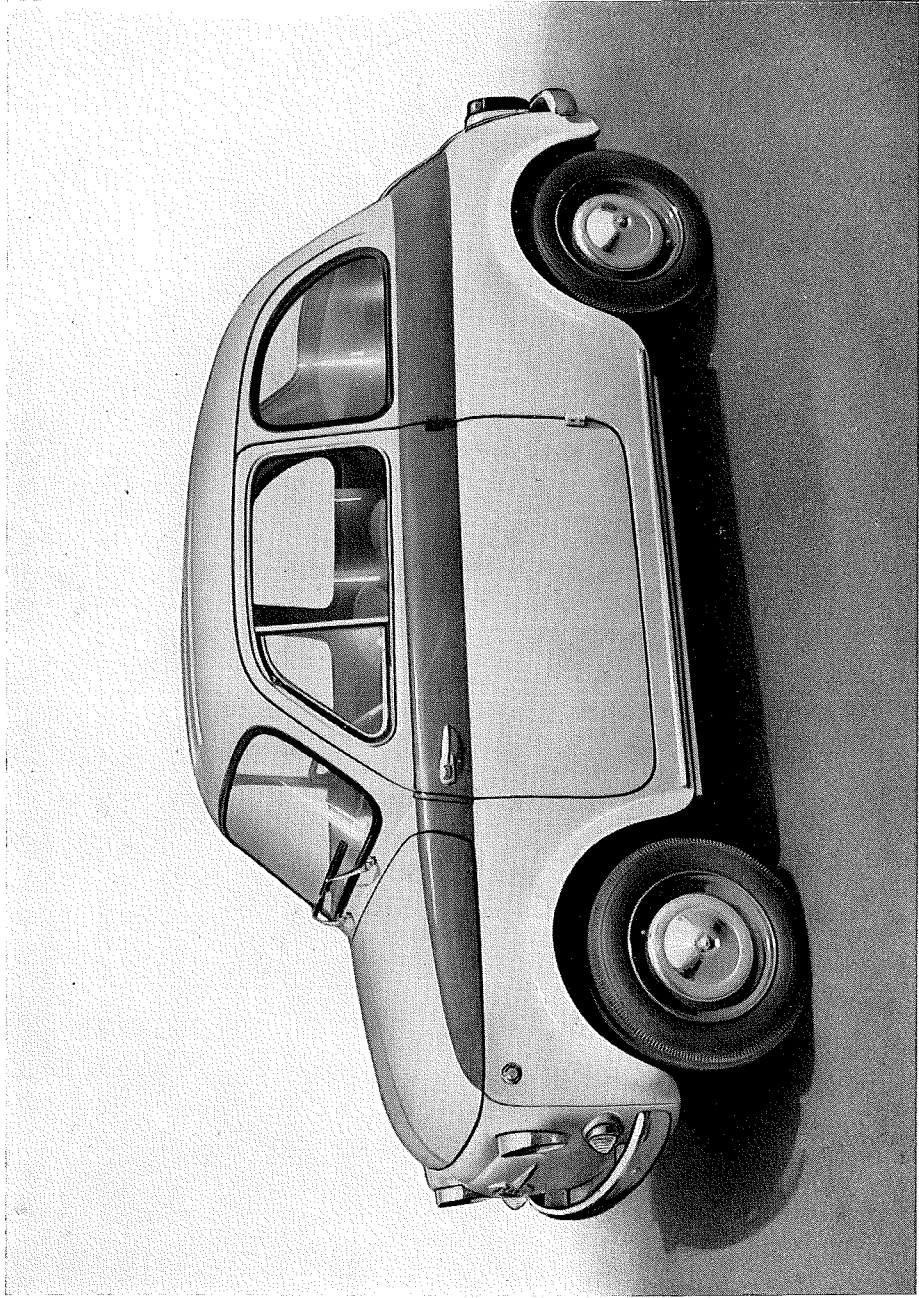
*For the **Convertible and Sport Models** see pages 53 up where only the differences with respect to the **Sun Roof** are described.*



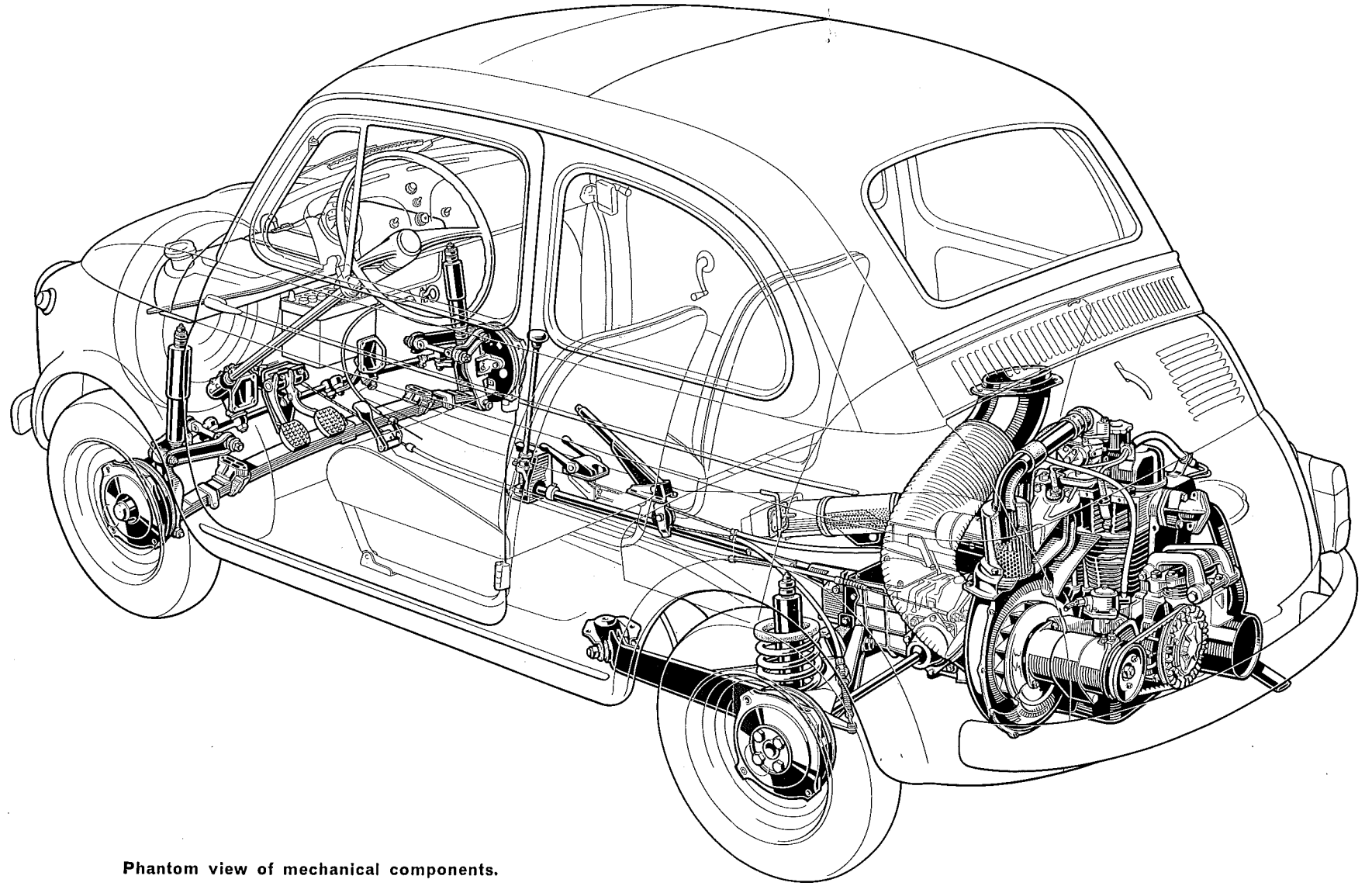
New 500 Sun Roof Model.



New 500 Convertible.



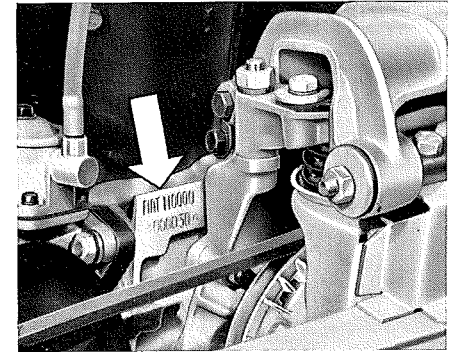
New 500 Sport (Hard Top).



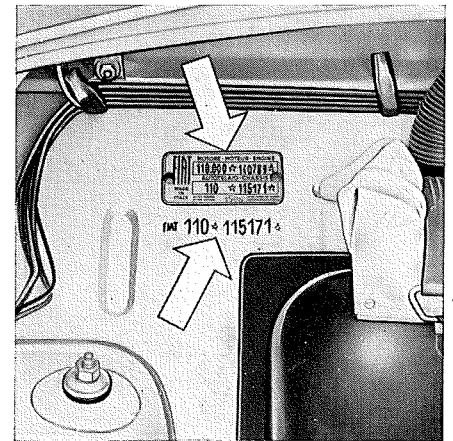
Phantom view of mechanical components.

IDENTIFICATION DATA

Engine type and identification number.



Identification plate.



Chassis type and identification number.

KEYS

If one of the keys is lost (vehicle is provided with two sets of keys one for door and one for ignition lock switch) a new one may be obtained from the FIAT Agent in your area, only by quoting identification number and Manufacturer's name. Spare keys are supplied as semi-finished blanks and must be adapted to locks using the remaining key as a template.

SERVICE

Not all the specified maintenance operations can be carried out easily by the Owner who usually does not have proper equipment at his disposal. Therefore, the car should be taken to one of the SERVICE STATIONS Fiat has established in Italy and abroad to best assist its Customers.

At these authorized FIAT Stations, any overhaul and repair work will be carried out rapidly, skillfully and economically, thanks to specially designed equipment and experienced personnel.

Fiat's Organization is at your disposal. Do not hesitate to write for any explanation or suggestion that will ensure top car performance and best efficiency.

▼
WHEN YOUR CAR NEEDS SERVICE
LOOK FOR THIS SIGN



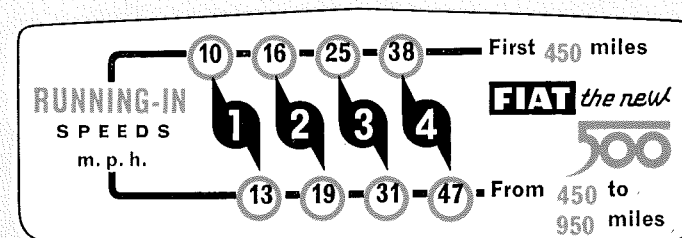
SPARE PARTS

Make it a point to use exclusively genuine FIAT parts. It is the best guarantee for top performance and satisfactory operation of all components.

When ordering, quote:

- Car model.
- Engine number or Number for Spares, according to whether engine or chassis-and-body parts are needed.
- Part number of spare ordered.

RUN-IN PERIOD



- ▶ When car is new, never exceed the running-in speeds indicated on the windshield decal.
- ▶ After starting, **do not race the engine**; warm up gradually.
- ▶ A running-in of at least 3000 km (1,800 miles) is required. Between 1500 and 3000 km gradually increase car speeds so as to reach the maximum permissible speeds only after 1,800 miles.
- ▶ Remember that engine is lubricated with a special running-in oil that **must be replaced by regular oil only after the first 1500-2000 km (900-1,200 miles)**. Before renewal wash the system thoroughly.

INDEX

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Identification data	7	Fuel system	30
Service	8	Engine cooling system	31
Run-in period	9	Ignition system	32
		Power train	32
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SUN ROOF

Operation

Doors and Seats	12
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Starting the car	21
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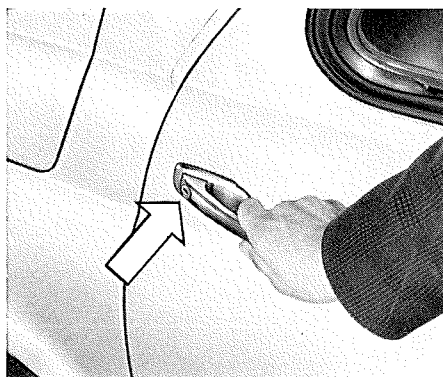
Maintenance

Consulting the charts	25
Engine lubrication	25

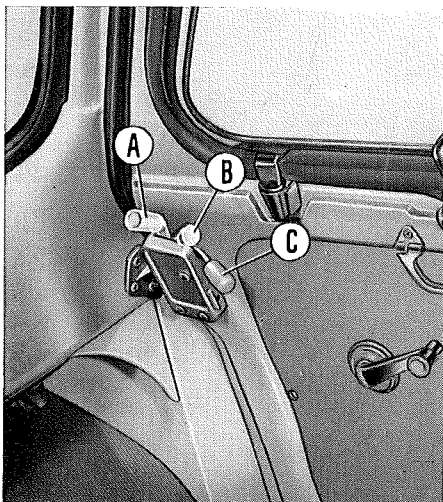
SUN ROOF

O P E R A T I O N

DOORS AND SEATS

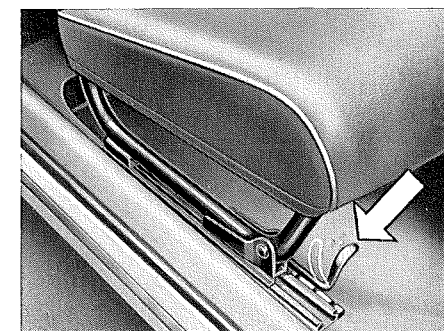
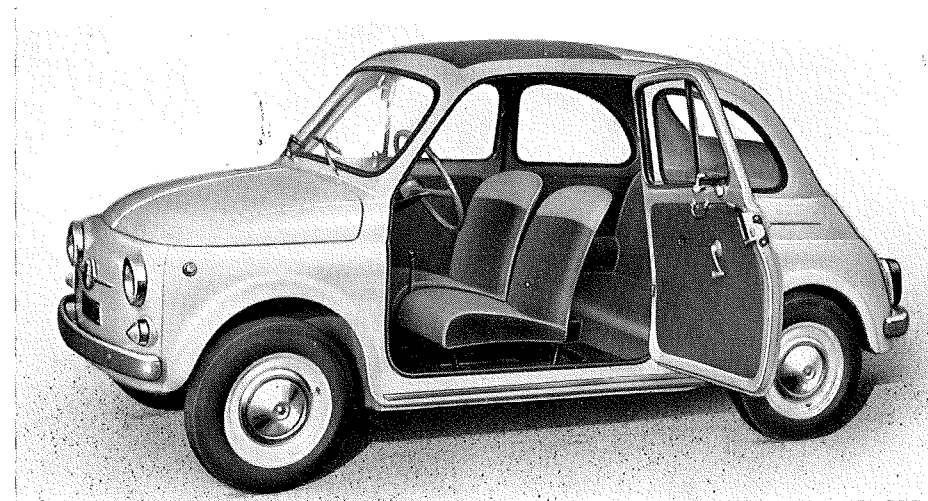


The driver's side door handle is provided with a key-controlled lock.

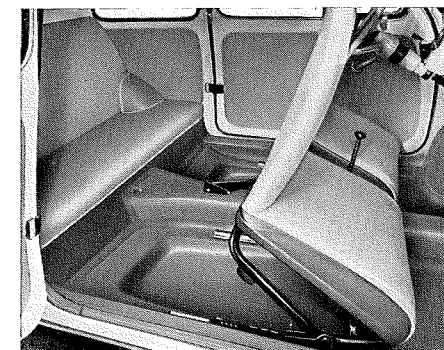


The door on opposite side may be unlocked from inside by a handle that may assume the following three positions:

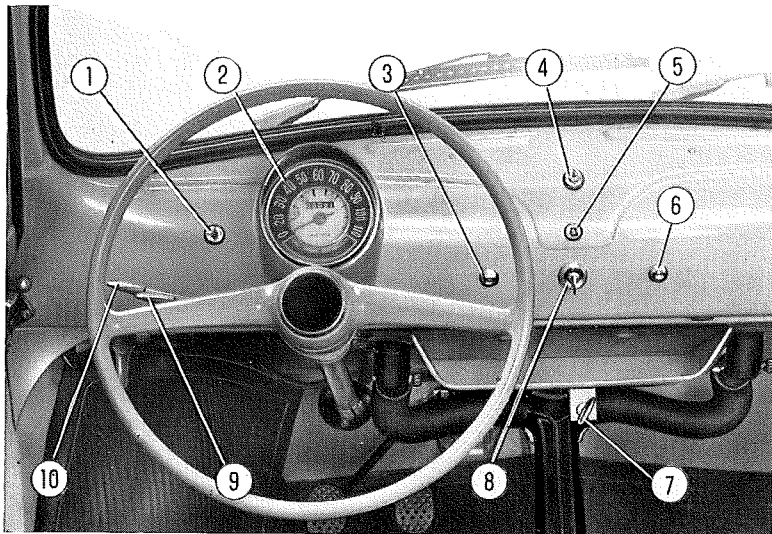
- A** = Open.
- B** = Closed.
- C** = Locked (cannot be opened from outside).



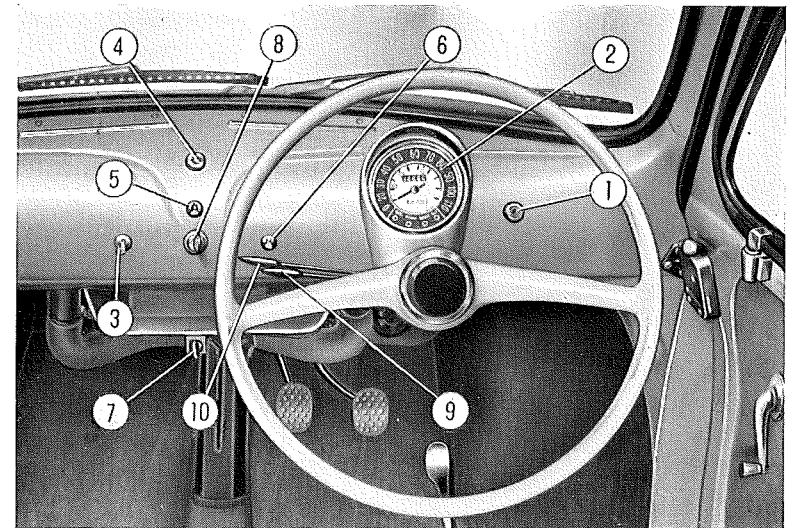
The position of front seats may be adjusted by moving the control lever rightwards.



To facilitate access to rear seat tilt front seats forward.



LHD cars.

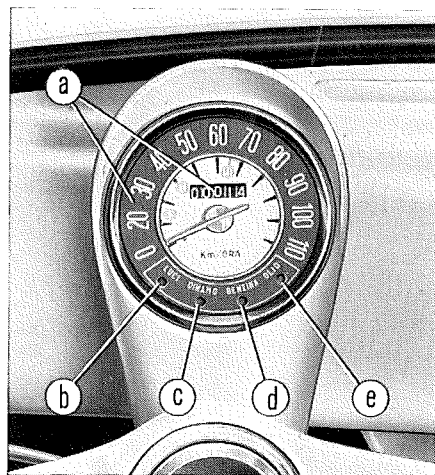


RHD cars.

GAUGES AND CONTROLS

- 1) High beam indicator (blue).**
The light intensity may be

adjusted by rotating the indicator bezel (2,5 Watt tubular bulb).



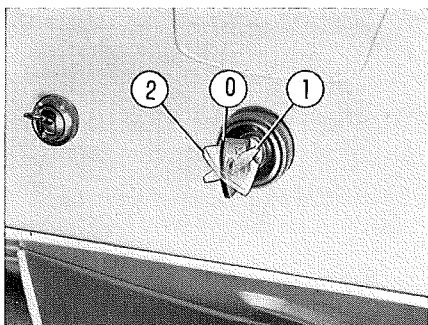
- 2a) Speedometer and mileage recorder:** Red spots on dial indicate maximum speed limits for the first three gears (after running-in).
- 2b) Parking lights indicator (green)** lights up when outer lighting change-over switch (5) is ON.
- 2c) Generator charge indicator (red):** lights up when ignition is turned on and goes out when generator reaches cutting-in speed [engine speed over 1100 rpm;

car at 23 km/h (14.3 miles in 4th gear].

- 2d) Fuel reserve indicator (red):** lights up when only 3,5 to 5 liters (.9-1.3 U.S. or .8-1.1 G.B. Gals) of fuel remain in tank.
- 2e) Insufficient oil pressure indicator (red):** is out when oil pressure is sufficient to ensure proper engine lubrication.
- 3) Panel light switch.**
- 4) Direction indicators pilot light (green):** flashes with direction

indicator lamps. Its intensity may be adjusted by turning its bezel.

- 5) Outer lighting switch.** Controls: front lights, rear parking and number plate lights.
- 6) Three-position windshield wiper switch:**
lever up: ON;
lever at center: OFF;
lever down: keep lever in this position to park wiper blades.
- 7) Hand accelerator (throttle).**



8) **Lock switch:** controls ignition and services (*).

Position 0: all OUT (key can be pulled out).

Position 1: ignition ON and services energized (key cannot be pulled out).

Position 2: parking lamps ON, with outer lighting change-over switch lever (9) in position I (key can be pulled out).

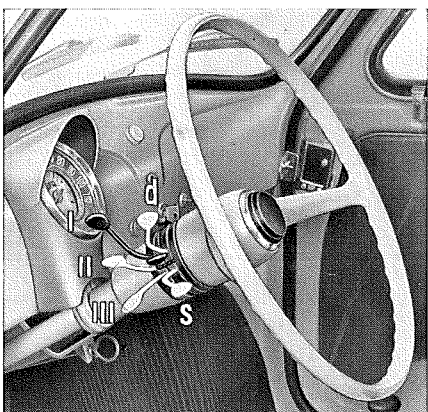
With engine inoperative **never** leave key in position 1.

9) **Direction indicators control lever:**

d = right turn. — s = left turn.

Lever returns to OFF position when steering wheel is back to straightahead drive position.

10) **Outer lighting change-over lever** (switch operative with switch 5 turned ON):



I: number plate lamp, front and rear parking lamps;

II: number plate lamp, front and rear parking lamps and headlamp low beams;

III: number plate lamp, front and rear parking lamps and headlamp high beams.

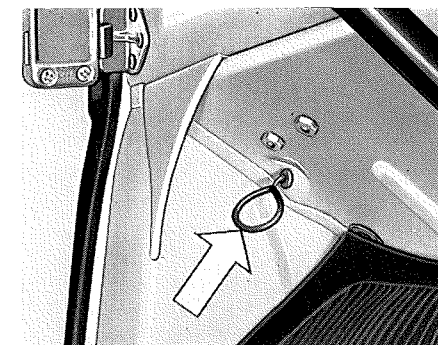
In positions **I** and **III**, by **tripping the lever upwards** flashing of headlamp low beams is obtained. With switch 5 OFF the low beam flashes can be obtained with lever in any of the three positions.

(*) **Services include:**

- fuel reserve indicator;
- generator charge indicator;
- Insufficient oil pressure indicator;
- direction indicators and pilot light;

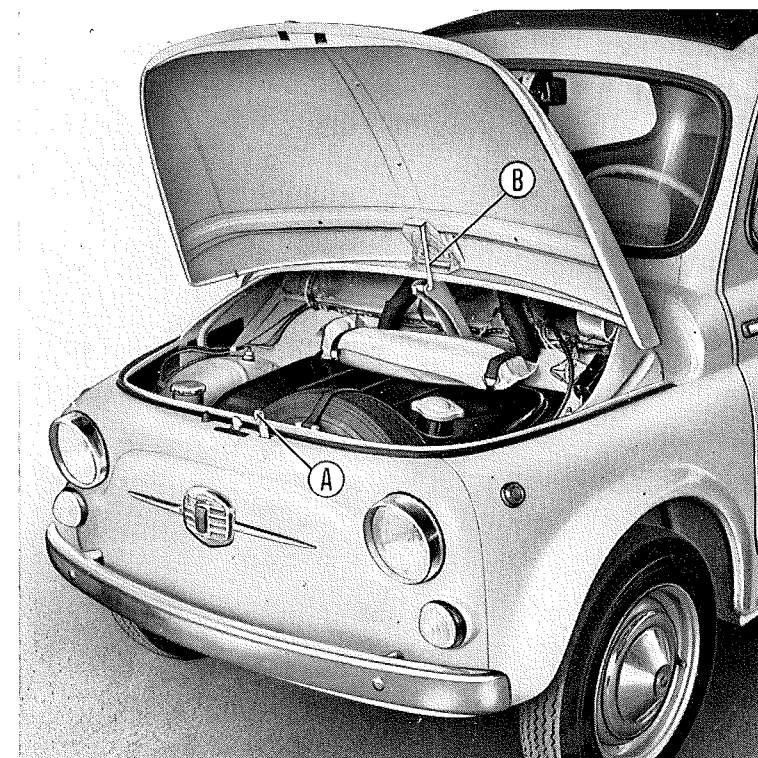
- rear stop lamps;
- headlamps (high beams, low beams and flashes), parking lamps with relevant indicator and number plate lamp;
- high beam indicator;
- panel light (in instrument cluster).

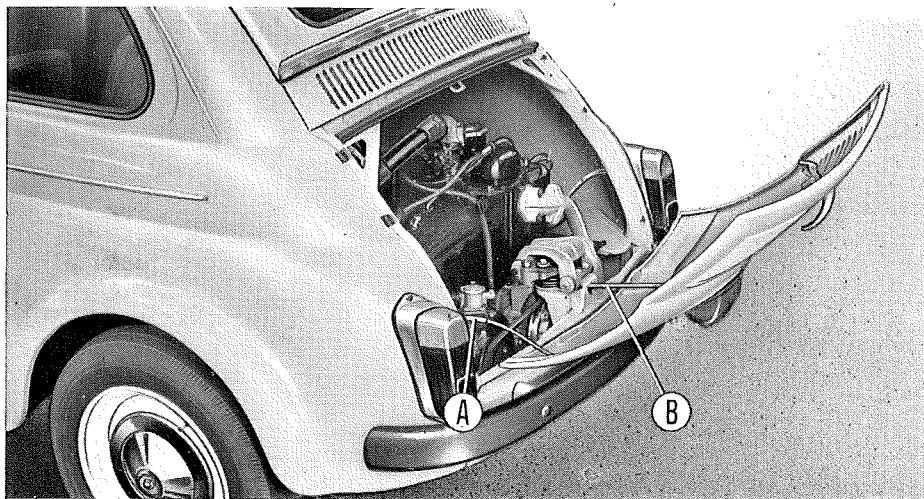
FRONT COMPARTMENT LID



To release front lid, pull the control.

To lift the lid, insert fingers and push in the safety catch (A).
Lid kept raised by prop (B).





ENGINE COMPARTMENT

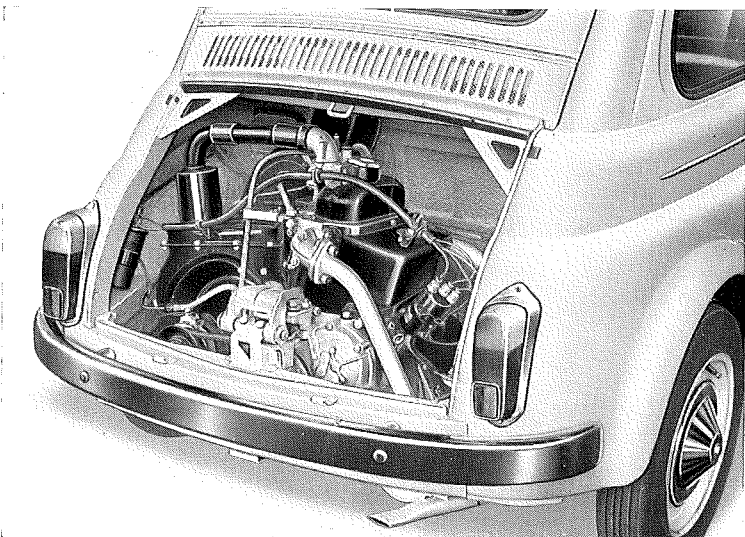
To open the lid, pull the handle.

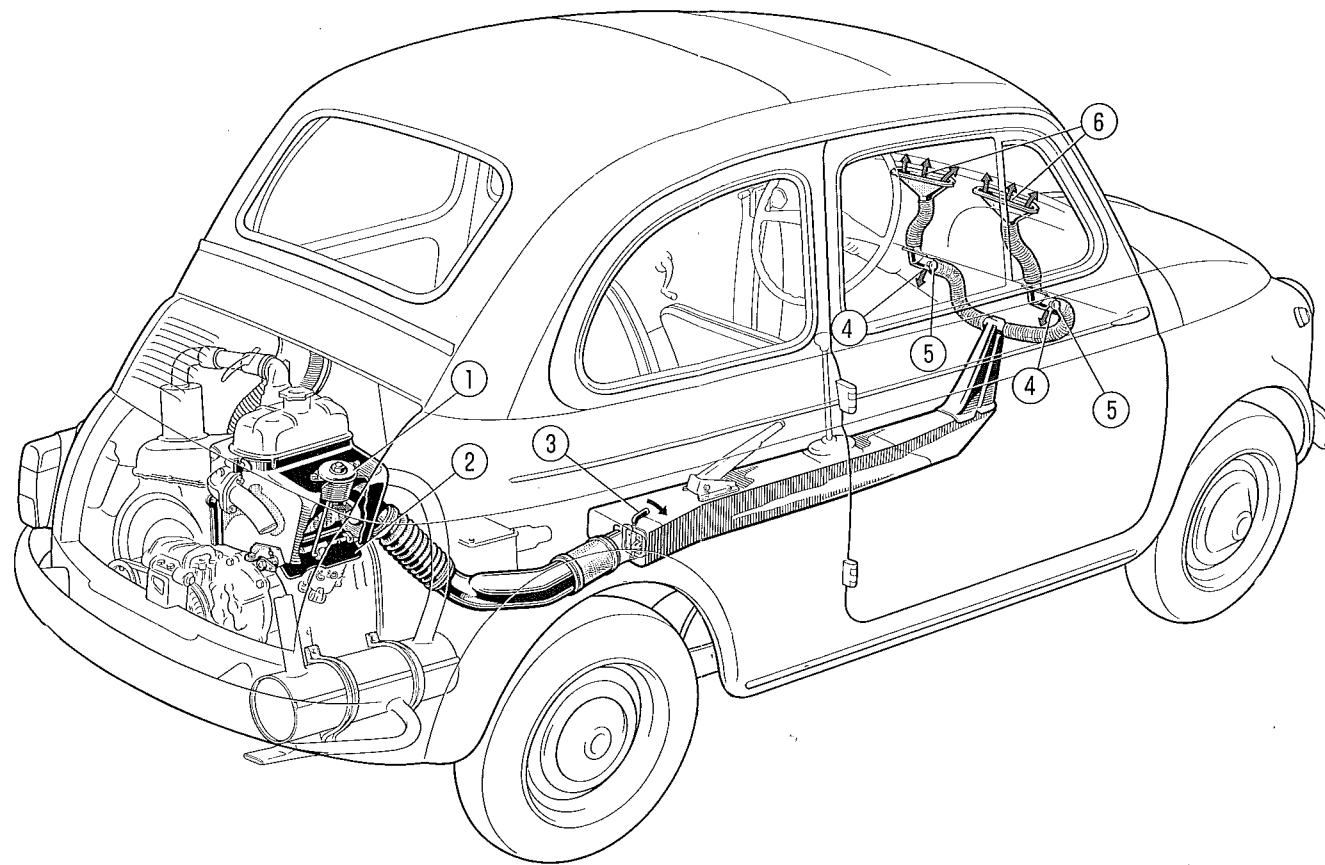
To remove the lid, if necessary:

- disinsert the number plate lamp cable plug-in connection (A);
- disconnect the limiter strap (B),

after suitably orienting the retaining crosspiece;

- back out the nut on right hinge pin and remove the lid from its hinges.





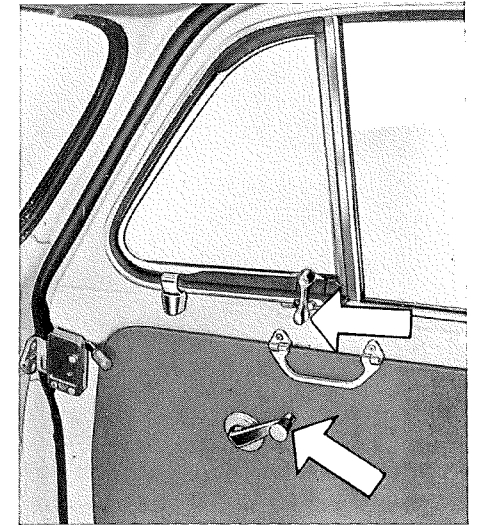
Heating system and windshield demister diagram.

- 1. Thermostat, controlling shutter 2 - 2. Shutter, engine cooling air outlet - 3. Lever controlling butterfly on heater hand control - 4. Warm air outlet slots - 5. Demister valve control knobs - 6. Windshield demister diffusers.

A heater booster may be fitted on request.

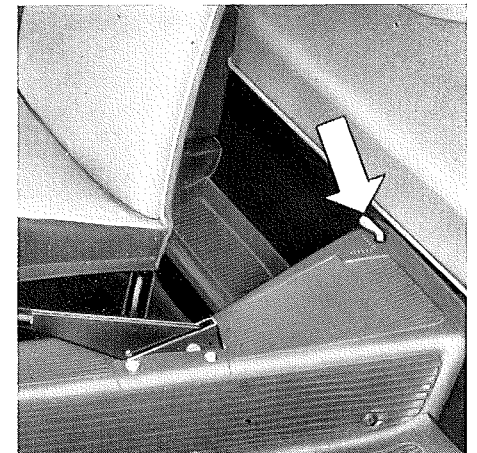
AIR CONDITIONING AND WINDSHIELD DEMISTING

Summer ventilation. Door windows with front swivelling vent wing, to improve ventilation, and regulator-controlled rear drop glass.

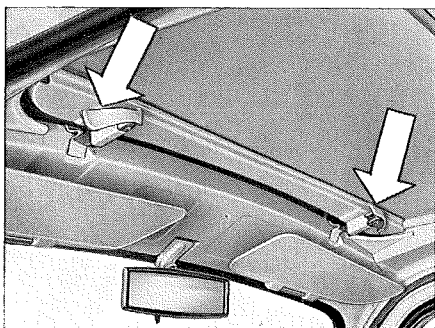
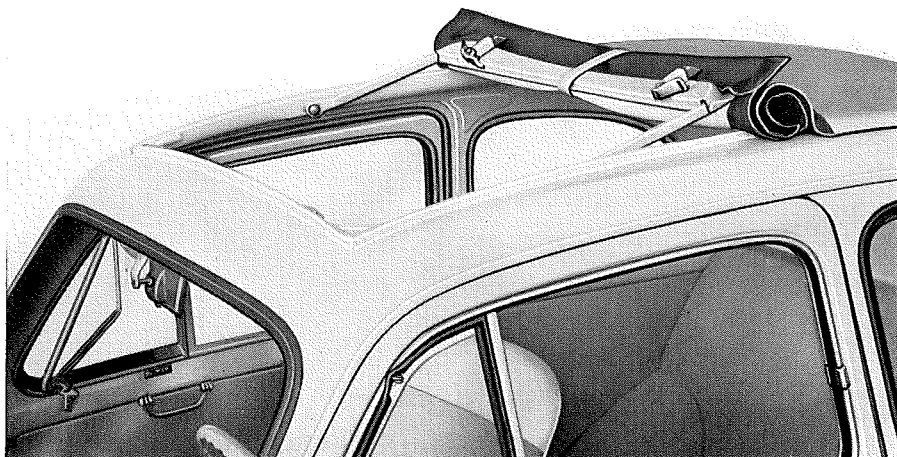


Winter heating. The admission of warm air into floor tunnel may be adjusted by turning **rightwards** the lever located near rear seat.

Warm air enters car through the slots in the connections of windshield demister hoses (See diagram).



Windshield demisting. To demist and defrost windshield, open totally or partially the butterfly valves mounted in the diffuser hose connections by suitably turning the two knobs.



OPENING THE ROOF

- a) Release the two front latches.
- b) Tilt bows backwards and stretch out the top.
- c) Roll the top, lower the frame over it and secure the roll with the strap.

To clean the top, wash with a sponge soaked in slightly lathered water.

STARTING THE ENGINE

Position of controls for cold starts.

- a) Gearshift lever in neutral.
- b) Choke lever (**A**, page 21): pulled fully up.
- c) Ignition lock switch key: **turned clockwise** to the stop.

With controls set as described above:

- pull up starter control lever (**B**, page 21) **without stepping on clutch pedal**. **Do not press accelerator pedal** until engine is started up. When engine fires regularly, push lever down as far as it will go.

- Push choke lever (**A**) down **gradually** (carburetor starting device is adjustable in accordance with climatic and engine temperature conditions) bringing the lever to **stroke end** when engine has warmed up sufficiently. This prevents lubricant dilution.

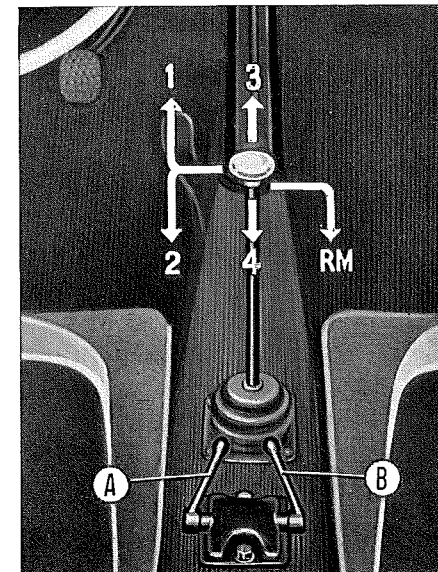
Hot starts.

Engine is warm:

Leave choke lever (**A**) down.

Engine is hot:

It might be necessary to **depress accelerator pedal fully**; then, release pedal as soon as engine fires.



Push in lever to engage reverse.

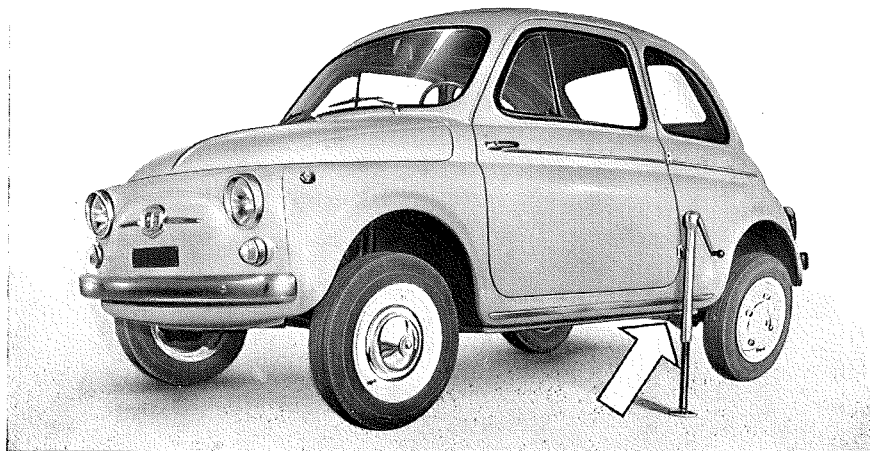
STARTING THE CAR

- a) Declutch.
 - b) Engage 1st gear.
 - c) **Release auxiliary brake** (to do this, press button on grip top).
 - d) Release clutch pedal gradually and at the same time accelerate slowly.
- In Winter, wait until engine is well warmed up before opening warm air outlets to heat the interior.

ON THE ROAD

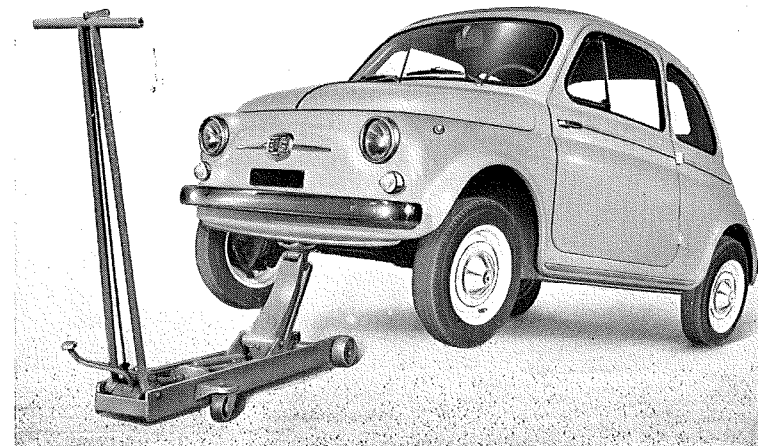
- **Never exceed** (not even on downgrades) the speed limits specified for each gear.

- During regular engine operation, all warning signals (red indicators) on panel **must be OFF**.



HOW TO CHANGE WHEELS

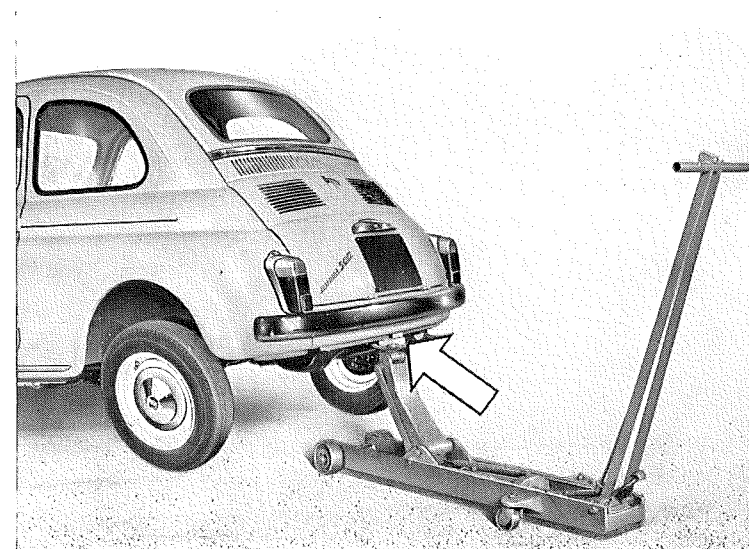
- ▶ If possible, place car on level ground and, to prevent any accidental movement, lock rear wheels by applying the auxiliary brake.
- ▶ Remove wheel cap by unscrewing the central mounting screw.
- ▶ Using the speed handle, slacken fixing screws about one turn.
- ▶ Place jack nub in bracket under car floor, then jack up until wheel to be removed clears the ground.
- ▶ Undo and remove the four fixing screws. Pull off wheel.
- ▶ Fit spare wheel. The wheel location dowel on brake drum must fit into the hole provided in wheel disc.
- ▶ Insert wheel fixing screws and tighten uniformly in criss-cross sequence.
- ▶ Lower car and remove jack.
- ▶ Tighten wheel fixing screws fully, still in criss-cross sequence, and re-fit the cap.



JACKING UP THE CAR

When either the front or rear end of car must be raised with a garage jack, it is indispensable to fit jack head under the specially designed brackets, as shown.

At rear, however, a wooden block at least 3 cm (1.2") thick must **always** be interposed between jack head and bracket.



MAINTENANCE

CONSULTING THE CHARTS

The periodical maintenance operations recommended in relation to given mileages, are listed in two charts: one covers the points to be lubricated and the other the cleaning, inspection and adjustment operations. Each operation is identified by a number and, in the corresponding note, reference is made to the page where the operation is described. In the lubrication chart is also given, next to each operation, a symbol indicating the grade of lubricant to be used. For oil grades not mentioned here, see page 50.

Particular stress is laid on the importance of reporting to a FIAT Service Station for all the maintenance operations marked



ENGINE LUBRICATION

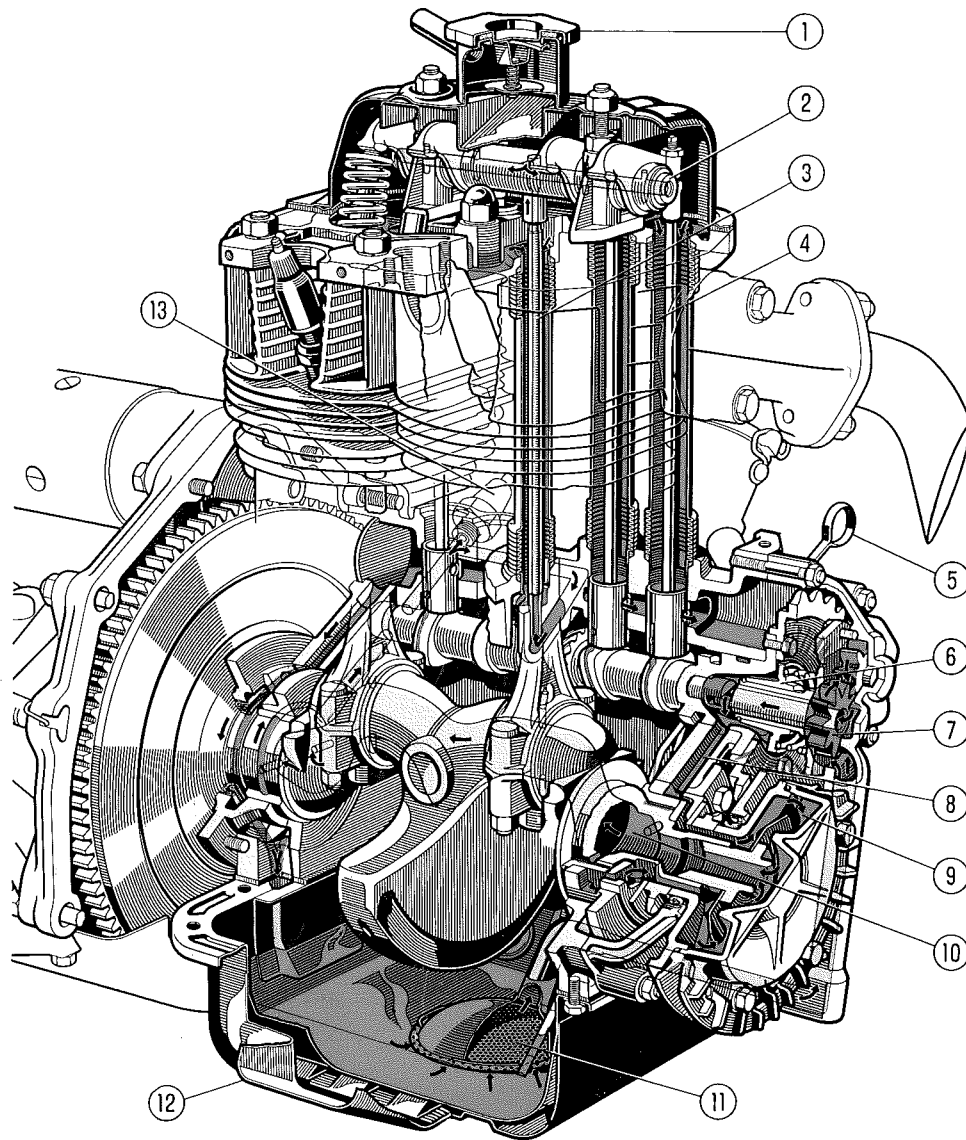
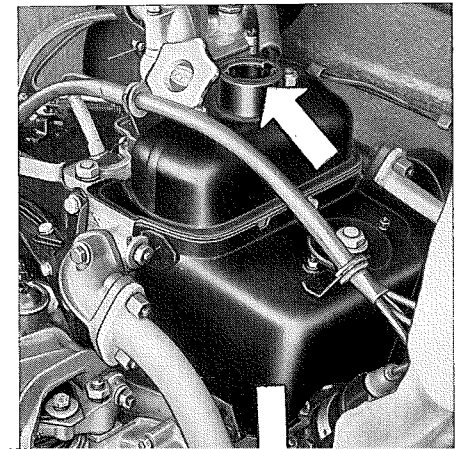
Sump.

Every 500 km (300 miles): check oil level. It must always result between the **Min** and **Max** marks on indicator rod. Do this after running the engine for about 1 minute.

Every 2.500 km (1,500 miles): replace oil. With engine well warmed up, allow to drain for at least 10-15 minutes while cranking the engine a few seconds now and then with the electric starter (ignition OFF) to empty crankshaft of any oil.

When engine is new, replace the running-in oil after the first 1.500-

Centrifugal oil filter: disassemble and clean accurately only when proceeding with a general overhaul of engine

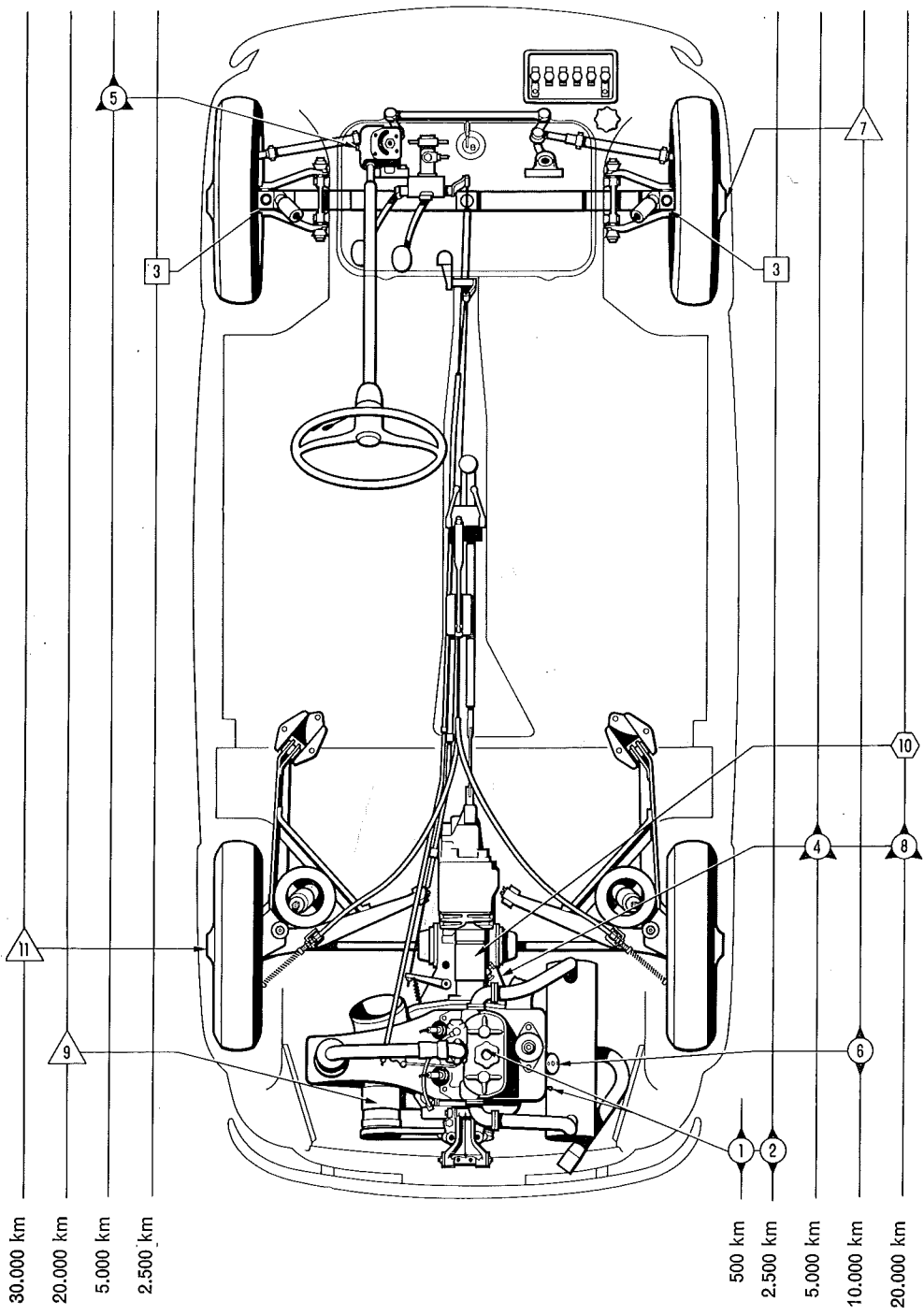


Engine Lubrication Diagram.

cylinder head oil drain - 5. Level Indicator rod - 6. Oil pressure relief valve - 7. Gear pump - 8. Oil duct to centrifugal filter - 9. Centrifugal oil filter - 10. Crankshaft with central oil gallery - 11. Oil pump Intake screen filter - 12. Sump cooling air conveyor - 13. Insufficient oil pressure indicator sending unit.

lar grade oil. After 3.000-4.000 km (1,800-2,400 miles) renew oil.



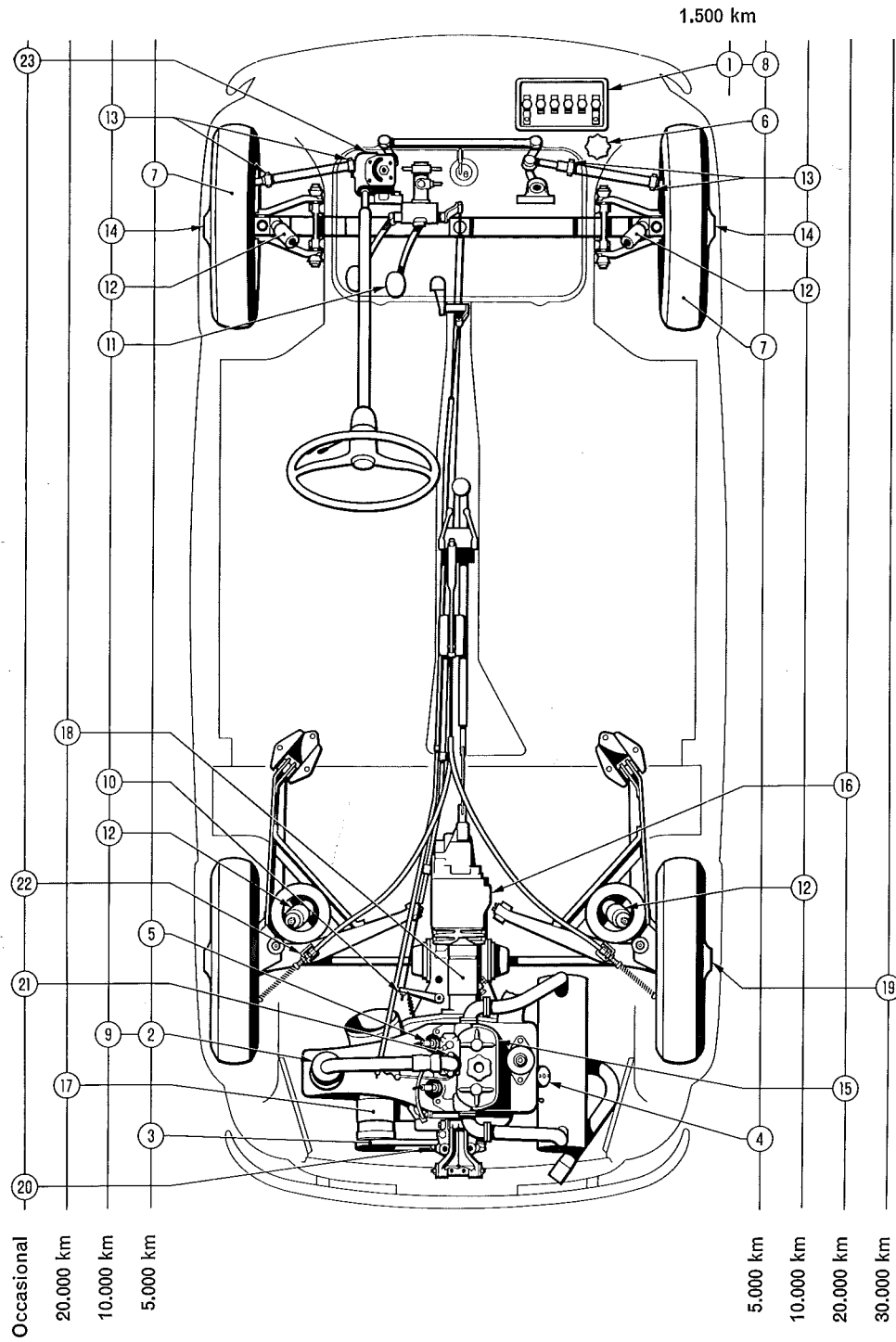


GENERAL LUBRICATION CHART

	Every 500 km (300 miles)	Page
1. Sump	.....	25
	Every 2.500 km (1,500 miles)	
2. Sump	.....	25
3. King pins	.....	35
	Every 5.000 km (3,000 miles)	
4. Transmission and differential	.....	33
5. Steering box	.....	36
	Every 10.000 km (6,000 miles)	
6. Ignition distributor	.....	32
7. Front wheel bearings	.....	38
	Every 20.000 km (12,000 miles)	
8. Transmission and differential	.....	34
9. Generator	.....	38
10. Starter	.....	38
	Every 30.000 km (18,000 miles)	
11. Rear wheel bearings	.....	38

LUBRICANTS

- | | | |
|--------------------------|----------------------|--------------------|
| ◆ | ▲ | |
| Engine oil (see page 50) | FIAT W 90 oil | |
| □ | ◇ | △ |
| FIAT Jota 1 grease | FIAT Jota 1/M grease | FIAT Jota 3 grease |



INSPECTION, CLEANING AND ADJUSTMENT CHART

Every 1,500 km (900 miles)

Page

- 1. Battery 38

Every 5,000 km (3,000 miles)

- 2. Air cleaner 30
- 3. Generator and blower drive belt 31
- 4. Ignition distributor 32
- 5. Spark plugs 32
- 6. Brake fluid reservoir 34
- 7. Tires 38
- 8. Battery 38

Every 10,000 km (6,000 miles)

- 9. Air cleaner 30
- 10. Clutch 33
- 11. Hydraulic brake system 34
- 12. Hydraulic shock absorbers 35
- 13. Steering rods 37
- 14. Front wheel bearings 38

Every 20,000 km (12,000 miles)

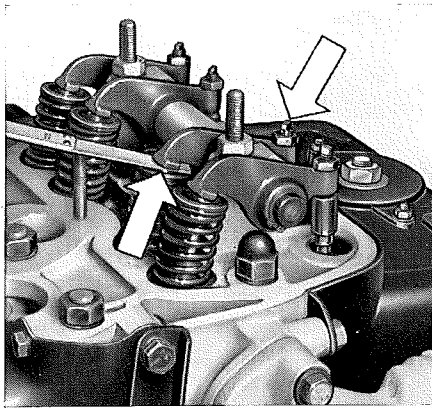
- 15. Valve gear 30
- 16. Transmission and differential 34
- 17. Generator 38
- 18. Starter 38

Every 30,000 km (18,000 miles)

- 19. Rear wheel bearings 38

Occasional

- 20. Centrifugal oil filter 25
- 21. Carburetor 31
- 22. Auxiliary brake 35
- 23. Steering gear adjustments 36



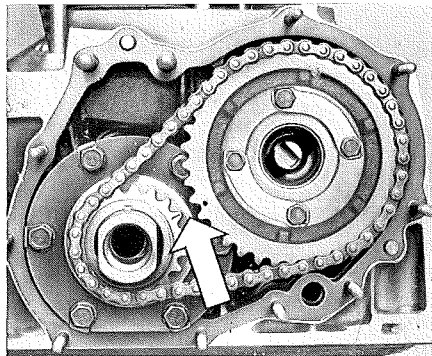
VALVE GEAR

Valve clearance: when engine is new, check valve tappet clearance after the first 1.500-2.000 km (900-1,200 miles) and after 3.000-4.000 km (1,800-2,400 miles). Specified clearance, with cold engine, is 0,15 mm (.0059").

Subsequently, this clearance ought to be checked only if tappet operation develops noise.

Valve gear timing: with reference marks lined up as shown, timing is correct.

Every 20.000 km (12,000 miles): have an overall inspection of timing mechanism made at a Service Station.



FUEL SYSTEM

Air cleaner (*).

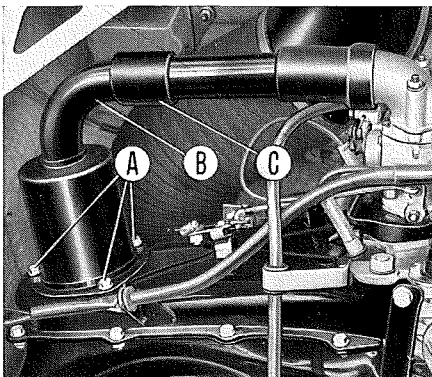
Every 5.000 km (3,000 miles): clean cartridge accurately by shaking off the dust and blowing with a low-pressure air blast. If restriction is excessive, replace.

To disassemble the cleaner: undo the three screws (A) and extract pipe (B) from connection hose (C).

Every 10.000 km (6,000 miles): replace the cartridge.

When dusty conditions prevail, clean and replace cartridge more often.

(*) An oversize cleaner is fitted as optional equipment on cars intended for prevalently dusty areas. To remove the filtering element for cleaning, take off the cover secured by two spring catches.



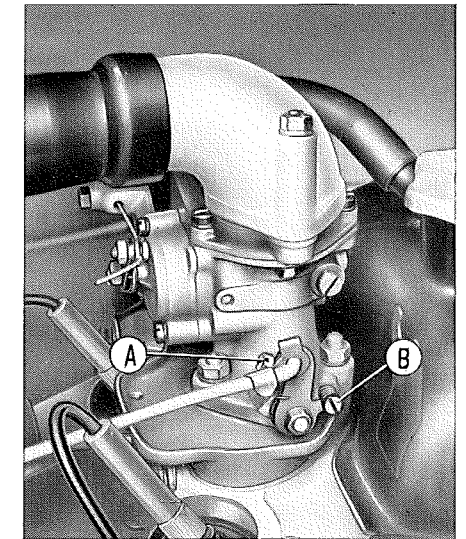
Carburetor.

If engine, though warm, tends to stop at idle speed, correct throttle opening slightly by setscrew (A). Screw (B) varies idle mixture richness. This adjustment requires the necessary know-how.

Cleaning of jets or inner strainer, if necessary, should be performed exclusively by using an air blast.



Always consult a Service Station when the carburetor develops major troubles.



ENGINE COOLING SYSTEM

Air circulation.



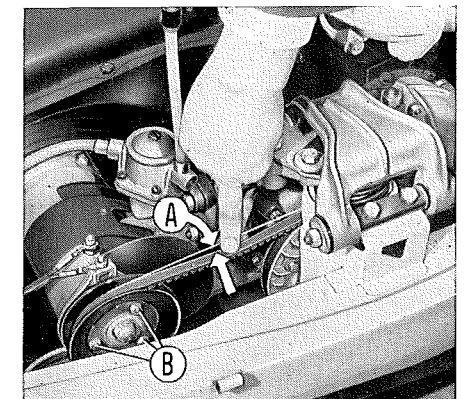
Should cooling be abnormal (engine too hot or too cold) have the thermostat (G, page 44) checked at a Service Station. The thermostat should permit the opening of valve F only when temperature of the engine-heated air reaches 70°-74° C (158°-165° F).

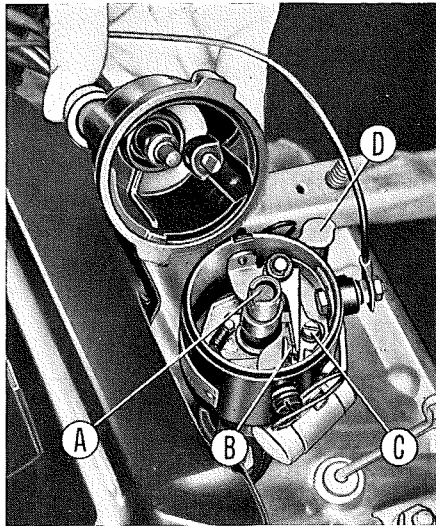
Generator and blower drive belt.

Every 5.000 km (3,000 miles): check belt tension. Correct sag (A), under a pressure of 10 kg (22 lbs): about 1 cm (.4").

To stretch the belt:

- Back out the three pulley mounting nuts (B).
- Remove outer semi-pulley.
- Take out one spacer ring (or more) to narrow up pulley groove.
- Re-install the semi-pulley, with the spacer ring(s) removed on its outer face.





IGNITION SYSTEM

Ignition distributor.

Every 5.000 km (3,000 miles): check breaker point gap which must be 0,47-0,53 mm (.019"-.021").

After repeated adjustments replace contacts if required.

Every 10.000 km (6,000 miles): with a few drops of engine oil (*) wet wick (A) and the wick inside oiler (D).

A - Wick.

B - Contacts.

C - Adjustable contact carrier plate screw.

D - Oiler with wick.

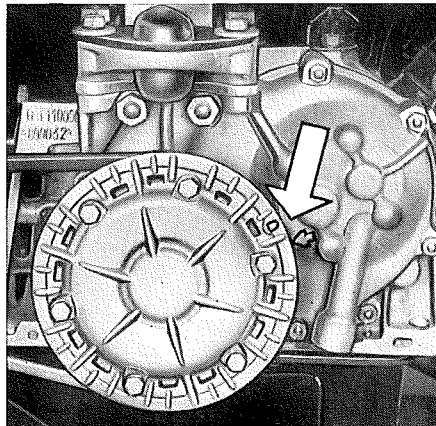
Spark plugs.

Every 5.000 km (3,000 miles): clean spark plugs and check electrode gap (0,5-0,6 mm = .0197"-.0236") (*). To remove spark plugs, disinsert the cables, unscrew the cap (with rubber seal) and then the spark plugs using the socket wrench. At reassembly, locate rubber seal properly.

Ignition timing.



This timing is necessary when the distributor shaft and/or camshaft have been removed. When distributor has been removed without disturbing the crankshaft, no timing operation will be required after reassembly.



Time distributor to engine as follows:

— Make sure cylinder No. 1 is in the compression stroke, i.e., with both valves closed.

Bring crankshaft to the position in which **the mark** on generator and blower drive pulley will be located 13-14 mm (.51" to .55") ahead of the **mark** on timing gear cover; this corresponds to a 10° B.T.D.C. advance.

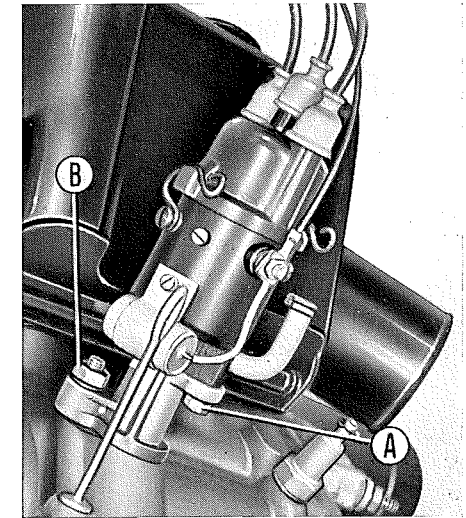
(*) See « Safe Motoring Hints ».

— Insert lower coupling on drive joint, inside the support, in such a position that the distributor mounting stud is located at center of the slot in support. Lock support to distributor by nut **A**.

— Remove distributor cap and rotate drive shaft by hand until rotor points to contact for firing in cylinder No. 1. In this position contacts are about to snap open (check first if max. contact distance is 0,47-0,53 mm (.019"-.021") as specified).

— Without disturbing the distributor drive shaft, install the support unit and distributor in the seat on crankcase, while inserting at the same time the support into the mounting stud; lock the unit on crankcase by nut **B**.

— Check once more that contacts are about to snap open and that



rotor points to contact for firing in cylinder No. 1. If necessary, slacken nut **A** and turn some more the distributor body.

— Connect cables to spark plugs in correct sequence.

POWER TRAIN

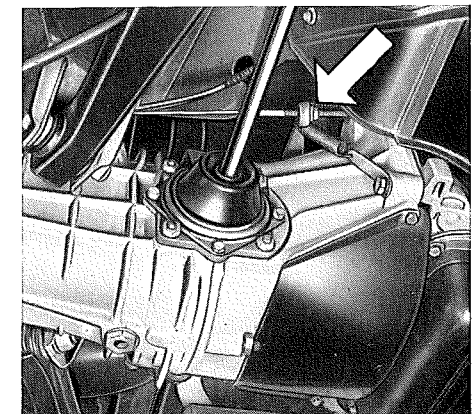
Clutch.

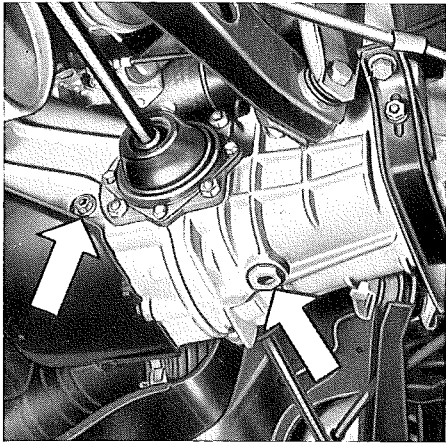
Every 10.000 km (6,000 miles): check that clutch pedal is set for an approximate 35-40 mm (1.38" to 1.57") free travel.

If necessary, re-adjust by stretcher. Secure in position by locknut.

Transmission and differential.

Every 5.000 km (3,000 miles): check oil level which must reach plug seat bottom edge.





Every 20.000 km (12,000 miles): renew oil after washing carefully the casing with kerosene. Let drip thoroughly before refilling.



Possibly, have differential bearings and final drive gears checked for play and backlash at a Service Station.

BRAKES

Brake fluid reservoir.

Every 5.000 km (3,000 miles): check level and, if required, top up.

Use exclusively the **special FIAT blue brake fluid** (or equivalent non-mineral HD fluid).

Brake system.

Every 10.000 km (6,000 miles): a complete inspection of the system should be performed at a Service Station.

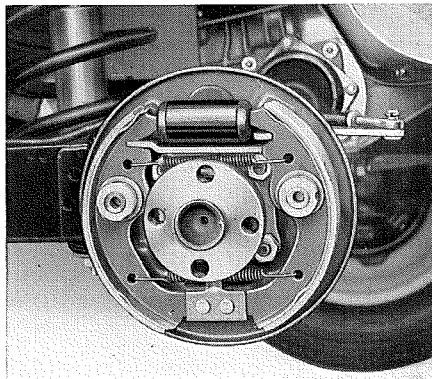


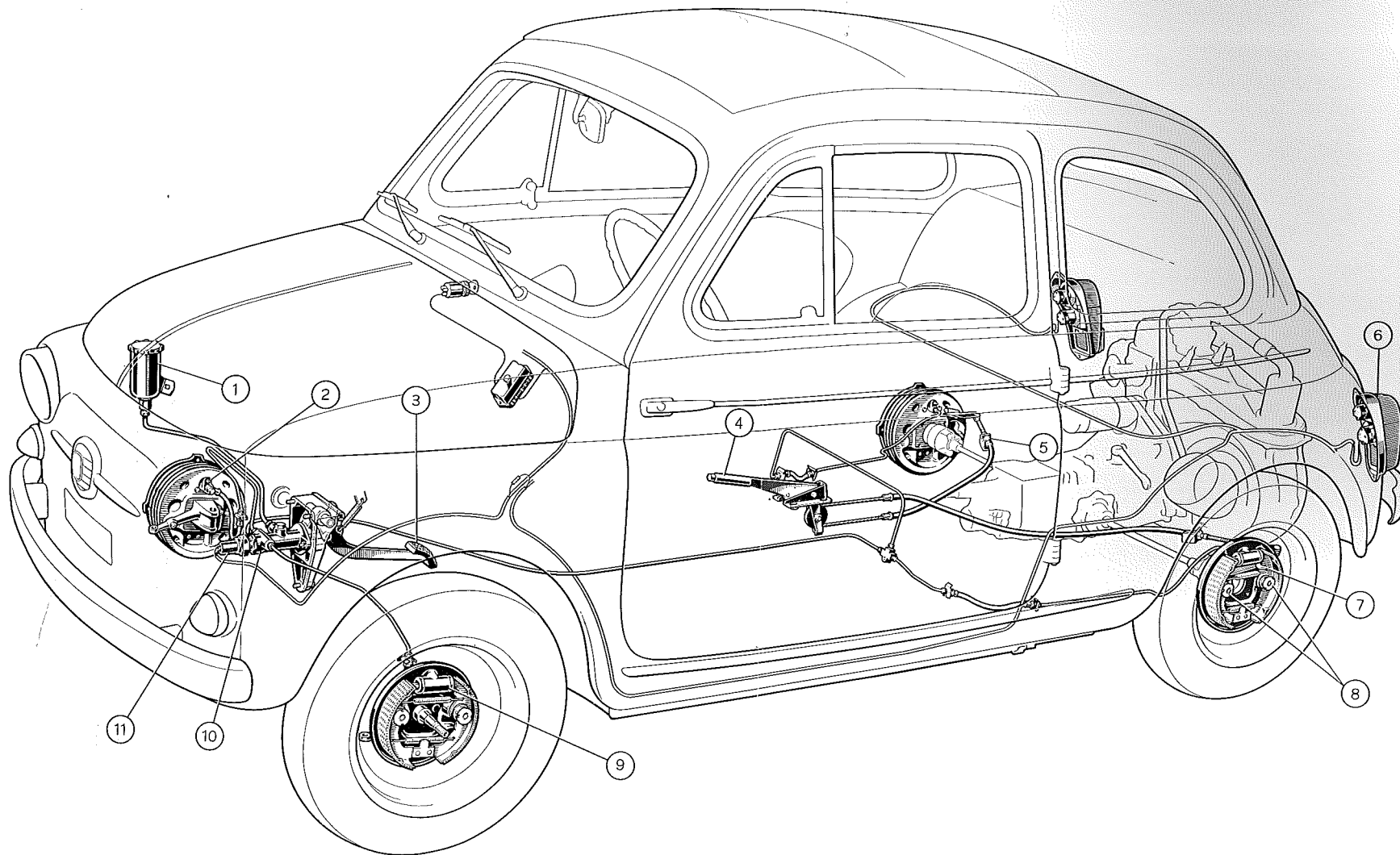
Brake shoes are self-adjustable and, hence, no shoe clearance adjustment will be required.

In case brake system has been drained it must be air bled, after refilling.

This is a delicate operation and should be entrusted to a Service Station. However, for those who decide to do the work themselves the following steps have been outlined for their guidance:

- Wipe off any dirt from tip of bleeder connection on top of each wheel cylinder (see diagram). If necessary, unclog central hole. Fit one end of bleeder hose on wheel cylinder bleeder connection and slacken half a turn.
- Immerse the other hose end in a transparent vessel partially filled with brake fluid.
- Pump pedal repeatedly and slowly, and watch the fluid running out of hose into vessel; stop pumping when fluid issues in a solid stream without bubbles.





Brake system diagram.

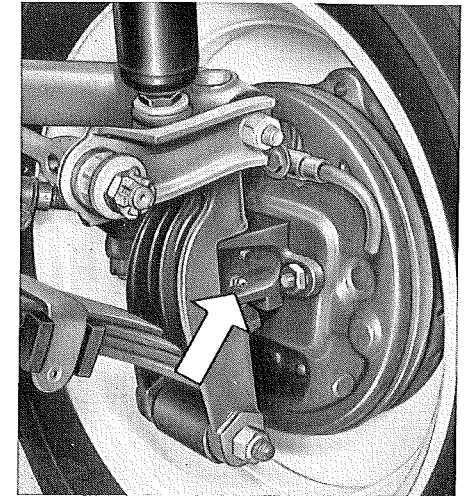
1. Brake fluid reservoir - 2. Bleeder connection - 3. Service brake pedal - 4. Hand lever, auxiliary brake on rear wheels - 5. Hand lever adjustment stretchers - 6. Stop lamps - 7. Auxiliary brake operating lever - 8. Shoe clearance self-adjusting device - 9. Wheel cylinder - 10. Master cylinder - 11. Stop light pressure operated switch.

— While keeping brake pedal depressed, tighten bleeder connection and remove bleeder hose. Clean connection tip of any fluid.


Repeat bleeding operation on each wheel cylinder, making sure fluid level in reservoir is always sufficient.

After bleeding the system, top up reservoir to fill mark.

WARNING! Never re-use the fluid emptied into vessel unless it has been filtered very carefully.

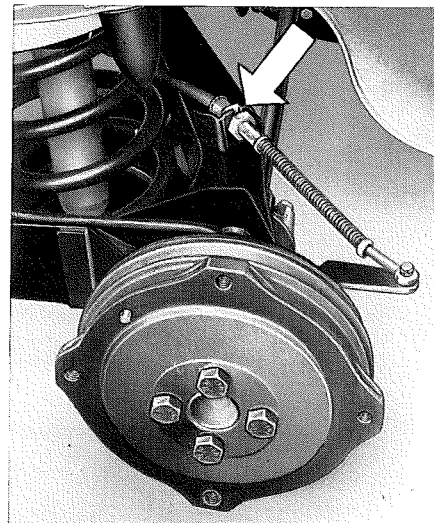


Auxiliary brake.

 If the brake is unable to hold the car when hand lever is pulled to stroke end, bring lever to position of rest, then turn

both stretchers located near the brakes on rear wheels.

Make sure that when lever is pulled to apply brake, the cable stretches sufficiently before hand lever comes to stroke end.




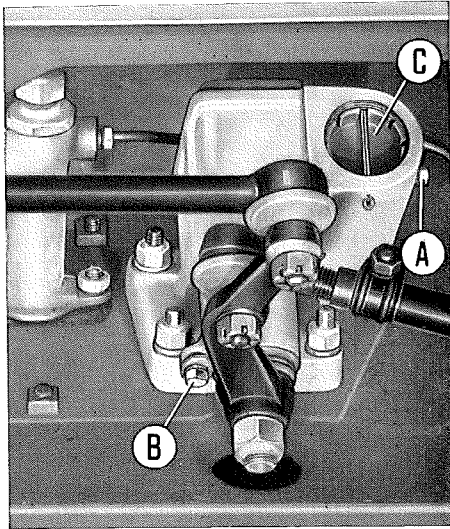
SUSPENSION

King pins.

Every 2.500 km (1,500 miles): inject some **FIAT Jota 1** grease in lubricators.

Shock absorbers.

Every 10.000 km (6,000 miles):
(or whenever dampening action becomes irregular)
 have shock absorbers checked at a Service Station.



STEERING AND WHEELS

Steering box.

Every 5.000 km (3,000 miles): check oil level which must reach lower edge of plug (A).

Steering gear adjustments.



If excessive play in steering gear develops or if improper response to steering is noticed, have steering mechanism inspected and adjusted at a Service Station. The adjustments must be carried out as follows:

a) Backlash between worm screw and sector:

— remove adjustment plate fixing screw (B) and rotate eccentric bush by adjustment plate to bring sector closer to worm screw. Secure plate again by using the second fixing hole;

— should adjustment plate be already fixed in second hole (which would impede repositioning after rota-

tion) remove plate from bush, rotate one or more serrations and secure. For this operation, steering box must be removed from car.

b) Play in worm screw roller bearings:

Screw up the adjuster ring (C).

Both adjustments should eliminate any play without rendering steering too stiff.

Steering rods.

Every 10.000 km (6,000 miles):



check steering linkages. Length of track rods is adjustable by turning in or out the sleeves after slackening the locking clamps.

After adjusting track rod length as required, check that expansion slot in sleeve registers with clamp joint; with fully tightened clamp, joint faces must not be in contact.

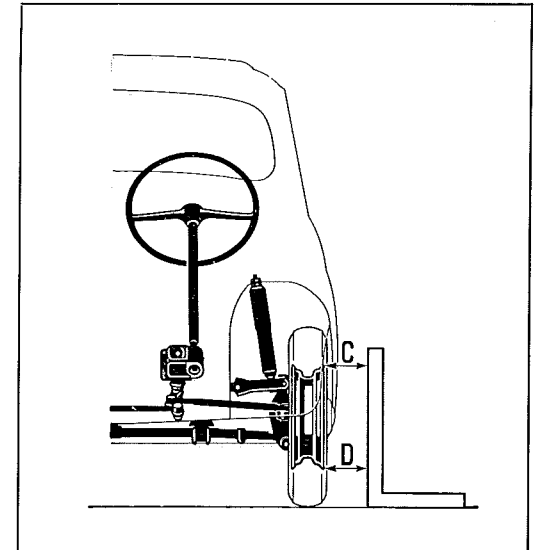
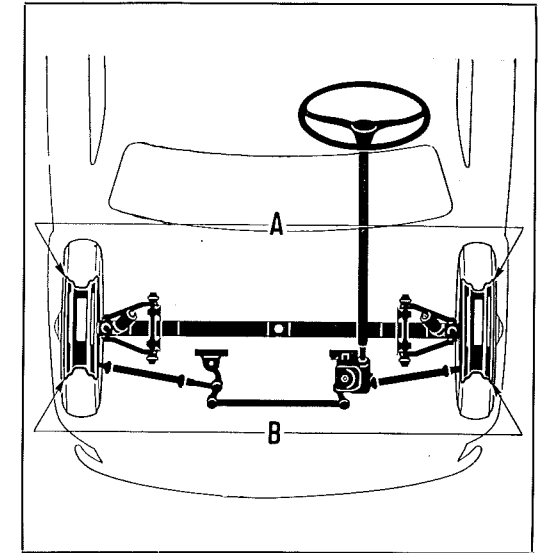
At the same time check front wheel toe-in and camber.

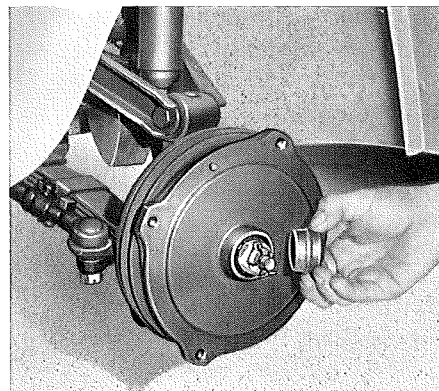
Camber and toe-in must be checked with laden car. After loading, move the car a few feet so that suspension components will assume their natural setting under load.

Toe-in: measurements must be taken on the same points of wheels: measure in A, then move car until points A reach position B and take a new measurement

$$A \text{ must be } = B \begin{matrix} + 2 \text{ mm} \\ - 0 \text{ mm} \end{matrix} (.078").$$

Camber: measurements must be taken in the same way as for toe-in, but vertically. D must be greater than C by 5-6 mm (.19"- .23").





Wheel bearings.

Every 10.000 km (6,000 miles): have front wheel bearings lubricated with **Fiat Jota 3** grease and adjusted at a Service Station.



Every 30.000 km (18,000 miles): have the same operations performed on rear wheel bearings.

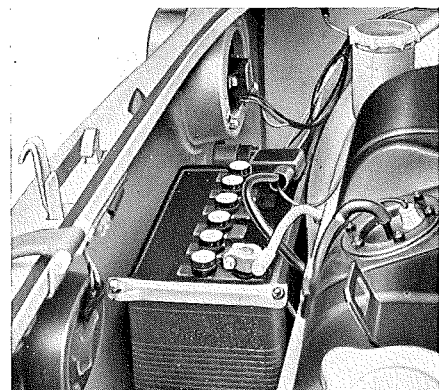
Tires.

Every 5.000 km (3,000 miles): To equalize tire wear, exchange tires in criss-cross fashion (See « Safe Motoring Hints »).

GENERATING AND STARTING EQUIPMENT

Battery.

Every 1.500 km (900 miles): with battery at rest and cold, check electrolyte level and, if necessary, add distilled water up to 3-5 mm (.12"-.20") above separators. In summer, check electrolyte more often.



Every 5.000 km (3,000 miles): check terminals and clamps for tightness and cleanliness, coating them with pure rosy vaseline. In case the car is garaged for a considerable time, see « Safe Motoring Hints ».

Generator.

Every 20.000 km (12,000 miles): clean commutator carefully with a dry cloth; check brushes for wear and contact conditions, and replace if necessary. Lubricate blower end bearing with **Fiat Jota 3** grease.



Starter.

Every 20.000 km (12,000 miles): clean commutator carefully; check wear and contact conditions of brushes and, if necessary, replace. When servicing starter, lubricate free wheel components with **Jota 1/M** grease.



Generator regulator.



No tampering with this unit by unauthorized personnel should be permitted. Owners should have the unit overhauled exclusively at a Service Station. If a radio is fitted on the car, do not insert any interference sup-

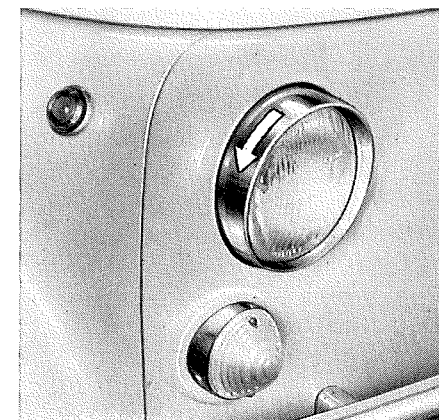
pression condenser between terminal No. 67 and ground, either of regulator or generator, since this would cause a rapid wear of contacts of the unit which normally is not a source of radio interference. Furthermore, never interchange terminals No. 67 and No. 51 or else the regulator would be irreparably damaged.

LIGHTS

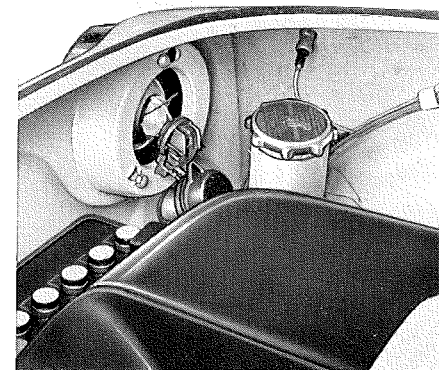
Headlamps.

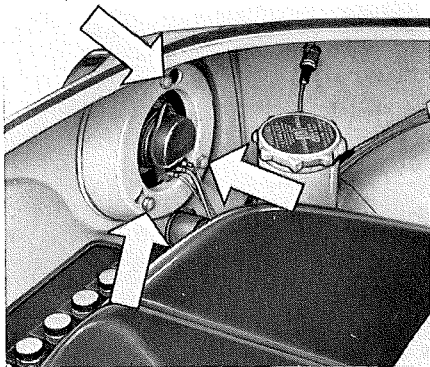
Removal of headlamp unit. Press on lens and rotate slightly counterclockwise.

The replacement of bulb alone is more easily done from inside front compartment.



Important. Headlamp reflectors are aluminized; therefore, during disassembly, be careful not to soil or touch the reflecting surface with fingers. Should reflector be dusty, clean preferably with an air blast or a feather duster. Never use a cloth, which would impair the reflecting surface brilliancy.



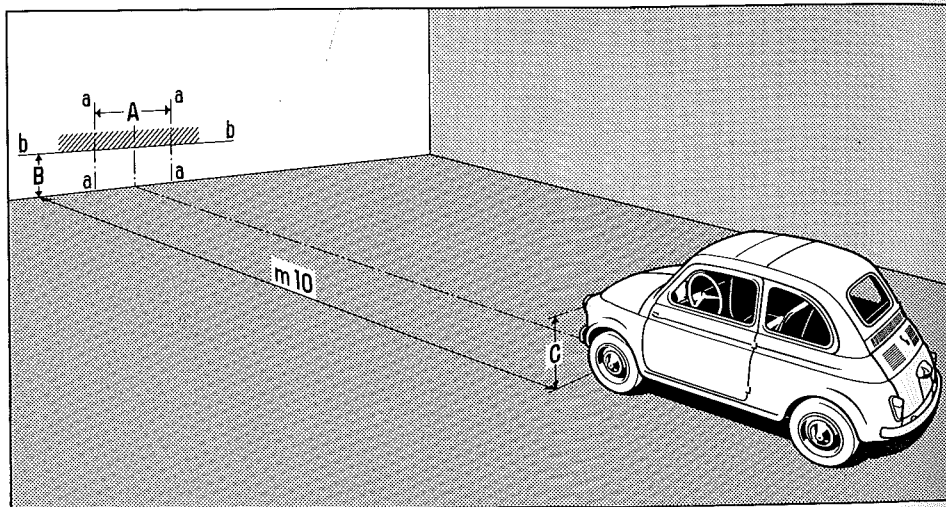


Headlamp aiming.

FIAT SERVICE When headlamp units have been removed, headlamps must be reaimed as follows, after placing the **unladen** car as shown in the figure:

- A** = Headlamps center-to-center distance.
- B** = **C** less 7 cm (2.76").
- C** = Headlamp height above ground.

Note: If aiming is carried out with car at 5 m (16.4 ft) from the screen, **B** is then = **C** less 3,5 cm (1,38").

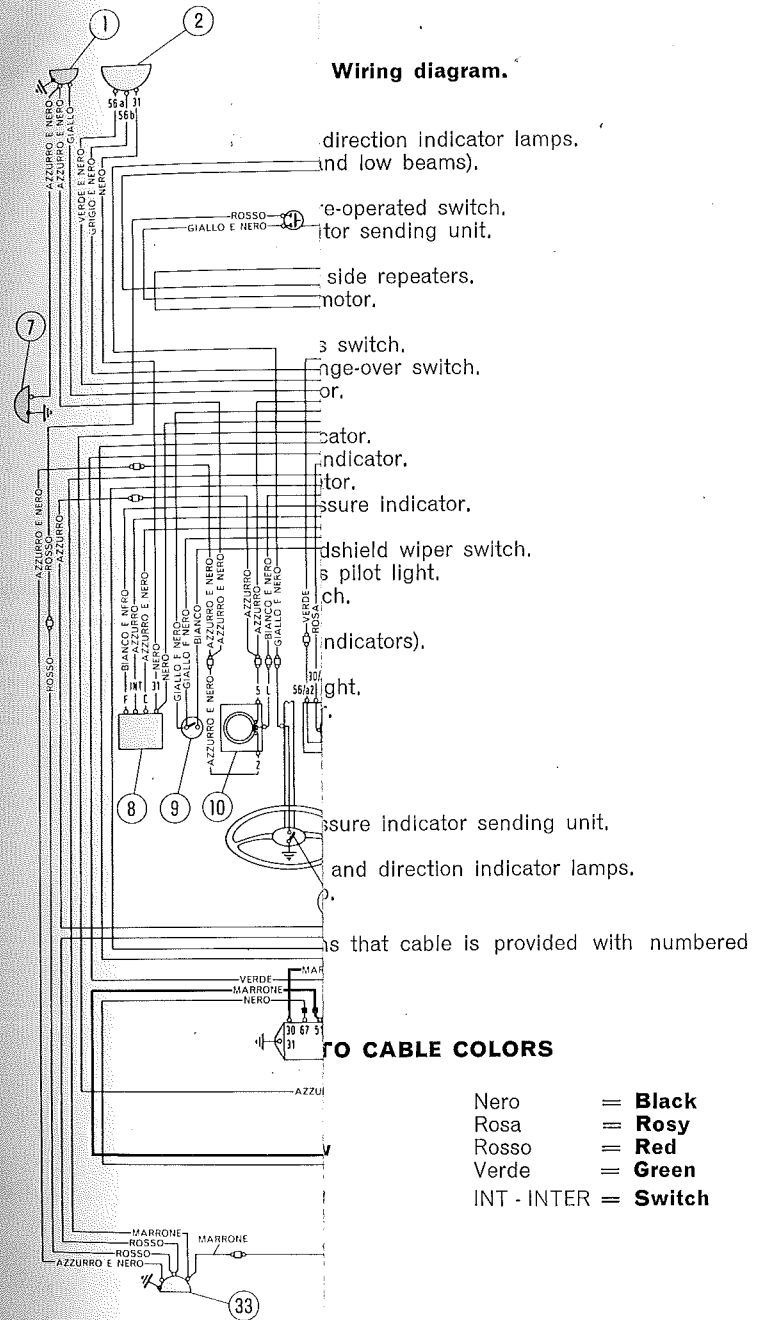


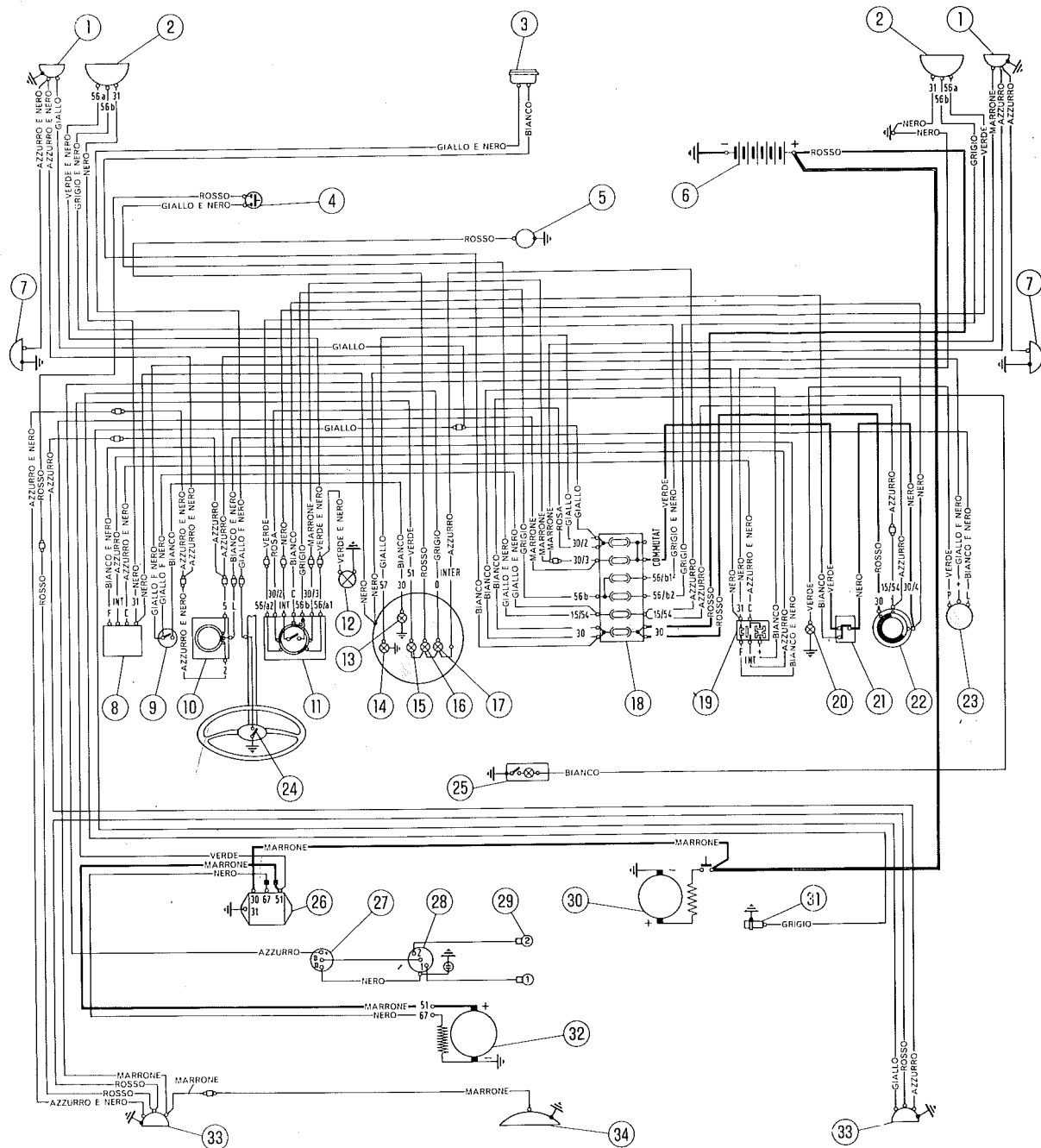
- **Check high beam divergence:** the center of each beam light pool must be on vertical axis **a-a**.
- **Check low beams inclination:** the separation line between lit and unlit areas must be on horizontal line **b-b**.

To adjust beams inclination turn of the same amount and in the same direction the two lower screws while turning the upper screw in the opposite direction.

To adjust beams divergence turn in opposite directions the two lower screws without disturbing the upper screw.

Adjustment screws are placed behind headlamps.





Wiring diagram.

1. Front parking and direction indicator lamps.
2. Headlamps (high and low beams),
3. Horn.
4. Stop lights pressure-operated switch.
5. Fuel reserve indicator sending unit.
6. Battery.
7. Direction indicator side repeaters.
8. Windshield wiper motor.
9. Panel light switch.
10. Direction indicators switch.
11. Outer lighting change-over switch.
12. High beam indicator.
13. Panel light.
14. Parking lights indicator.
15. Generator charge indicator.
16. Fuel reserve indicator.
17. Insufficient oil pressure indicator.
18. Fuses.
19. Three-position windshield wiper switch.
20. Direction indicators pilot light.
21. Outer lighting switch.
22. Lock switch.
23. Flasher (direction indicators).
24. Horn button.
25. Rear view mirror light.
26. Generator regulator.
27. Ignition coil.
28. Ignition distributor.
29. Spark plugs.
30. Starter motor.
31. Insufficient oil pressure indicator sending unit.
32. Generator.
33. Rear parking, stop and direction indicator lamps.
34. Number plate lamp.

Note. - Mark ■ means that cable is provided with numbered strip or ferrule.

KEY TO CABLE COLORS

Azzurro = Blue	Nero = Black
Bianco = White	Rosa = Rosy
Giallo = Yellow	Rosso = Red
Grigio = Grey	Verde = Green
Marrone = Brown	INT - INTER = Switch

He



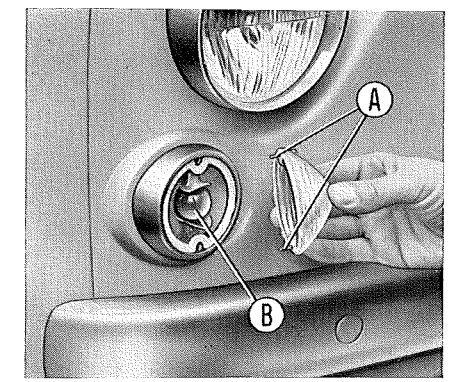
mu
pla
in

A =
B =
C =
Not



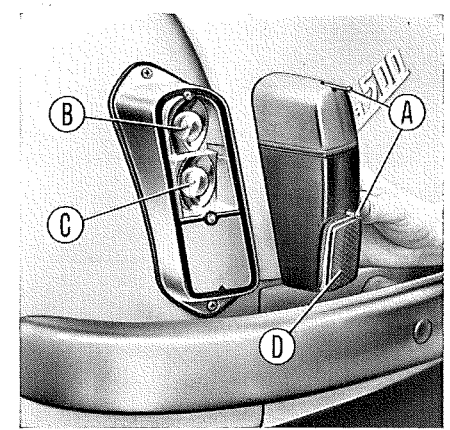
Front parking and direction indicator lamps.

- (A) Lens mounting screws.
- (B) Bayonet-coupled bulb.



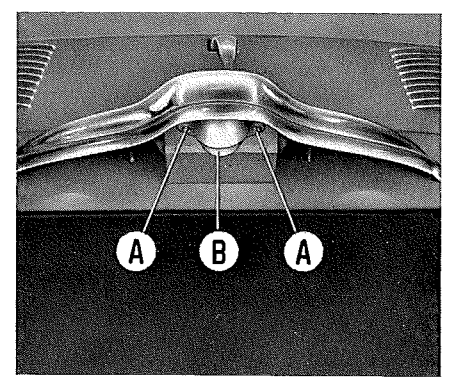
Rear parking, stop and direction indicator lamps with reflex reflector.

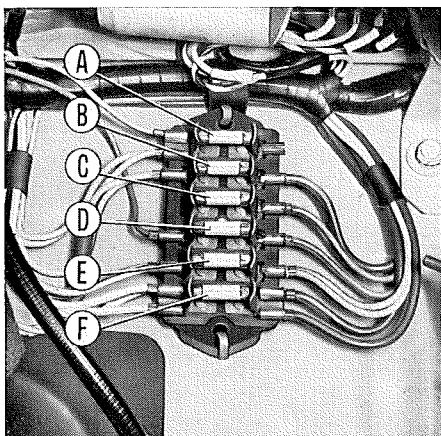
- (A) Lens mounting screws.
- (B) Bayonet-coupled bulb (direction indicator).
- (C) Bayonet-coupled bulb (parking and stop).
- (D) Reflex reflector.



Number plate lamp.

- (A) Lens and light cap mounting screws.
- (B) Lens.





Fuses.

Six 8 Ampere fuses, arranged in front compartment. Before replacing a burnt fuse trace the cause of blowing and remedy accordingly.

Unprotected circuits: battery charge with generator charge indicator, ignition, starting, fuel reserve indicator, and insufficient oil pressure indicator.

PROTECTED CIRCUITS					
A Fuse No. 30/2	B Fuse No. 30/3	C Fuse No. 56/b1	D Fuse No. 56/b2	E Fuse No. 15/54	F Fuse No. 30
<ul style="list-style-type: none"> - Right head-lamp high beam. - Front left parking lamp. - Rear right parking lamp. - Front parking lamps indicator. 	<ul style="list-style-type: none"> - Left head-lamp high beam. - Front right parking lamp. - Rear left parking lamp. - Number plate lamp. - High beam indicator. 	<ul style="list-style-type: none"> - Left head-lamp low beam. 	<ul style="list-style-type: none"> - Right head-lamp low beam. 	<ul style="list-style-type: none"> - Direction indicators and pilot light. - Panel light. - Stop lights. 	<ul style="list-style-type: none"> - Horn. - Lamp in rear view mirror. - Windshield wiper.

TOOL KIT

In a bag located in front compartment, above fuel tank.

Bag, containing:

- Wrench, double end, 8 x 10 mm.
- Wrench, double end, 12 x 14 mm.
- Wrench, double end, 17 x 19 mm.
- Cutting pliers.
- Punch, straight.
- Screwdriver, double-end shank.
- Wrench, socket, for spark plugs.
- Speed handle.
- Jack.

SPECIFICATIONS

ENGINE

Type 110.000
 Number and arrangement of cylinders 2, in line
 Bore and stroke 66 x 70 mm
 (2.598" x 2.755")
 Total piston displacement 479 cc
 Compression ratio 7 to 1
 Max. power { with blower,
 output { less silencer 16,5 HP
 { S.A.E. rating . 21 HP

VALVE GEAR

Overhead valves. Timing data:

Intake { Opens: B. T. D. C. . . . 9°
 { Closes: A. B. D. C. . . . 70°
 Exhaust { Opens: B. B. D. C. . . . 50°
 { Closes: A. T. D. C. . . . 19°

Tappet clearance { Intake 0,45 mm
 adjustment for { (.0177")
 valve timing { Exhaust 0,38 mm
 { (.0150")

Final tappet operation clearance adjustment, **with cold engine:**

intake and exhaust 0,15 mm (.0059")

FUEL SYSTEM

Weber 26 IMB 1 carburetor, with progressive-action starting device.

Carburetor data:

Venturi diameter 21,00 mm
 Main jet diameter 1,12 »
 Idle jet diameter 0,45 »
 Starting jet diameter 0,90 »

LUBRICATION

Normal lubrication pressure:
 2,5 to 3 kg/cm² (35.5 to 42.6 p.s.i.).

IGNITION

Static advance 10°
 Centrifugal advance 18°
 Ignition point gap 0,47 to 0,53 mm
 (.019" - .021")

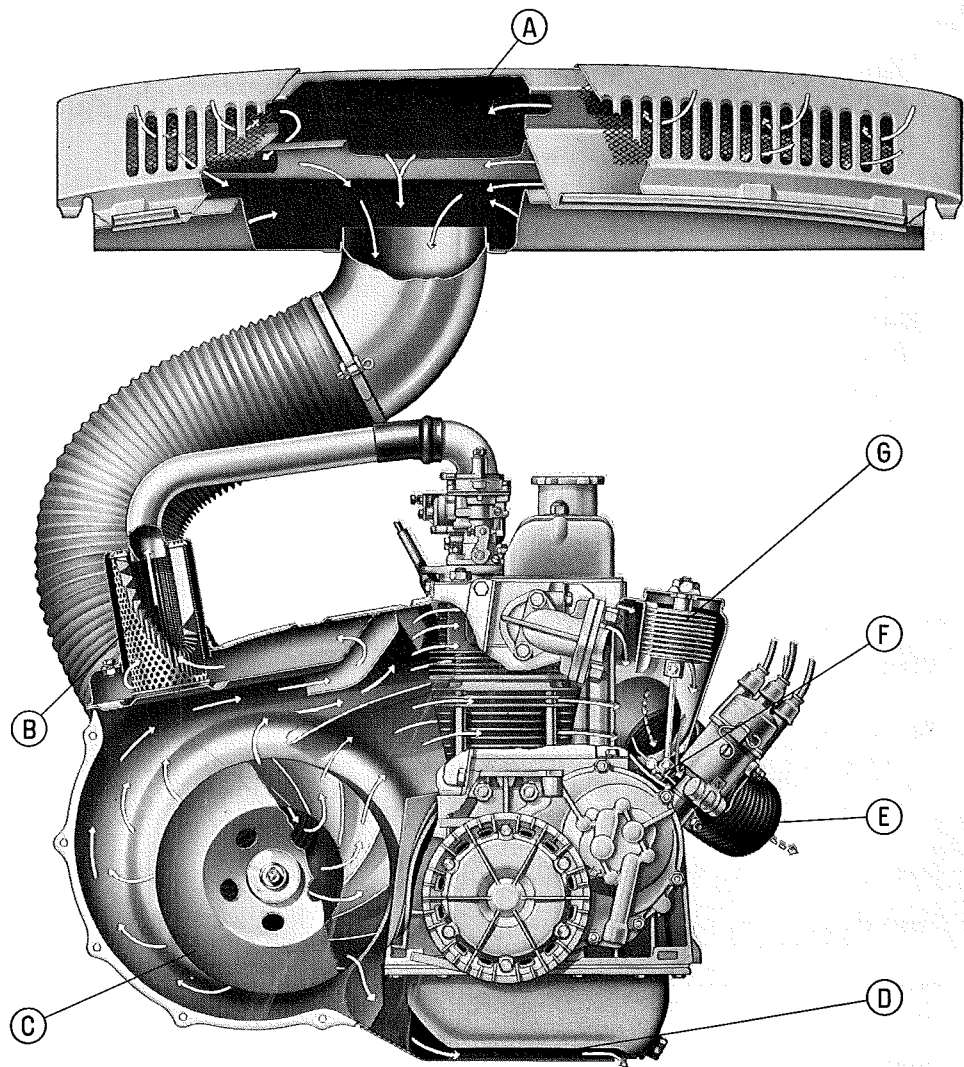
Marelli CW 225 N spark

plugs: diameter and pitch (metric) 14 x 1,25 mm
 Spark plug gap 0,50 to 0,60 mm
 (.0197" - .0236")

COOLING

Air circulated by blower.
 Thermostatically operated air draft shutter:

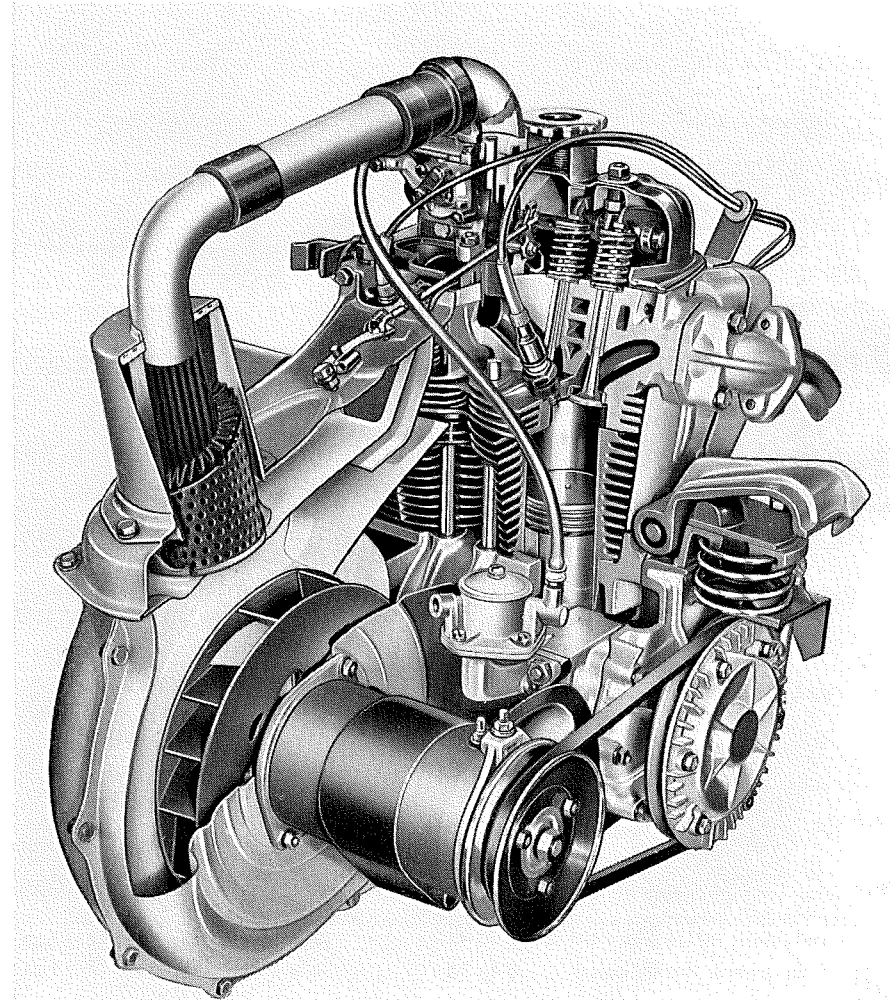
- begins to open at 70°-74° C (158°-165° F)
- is fully open at 81°-87° C (178°-188° F)

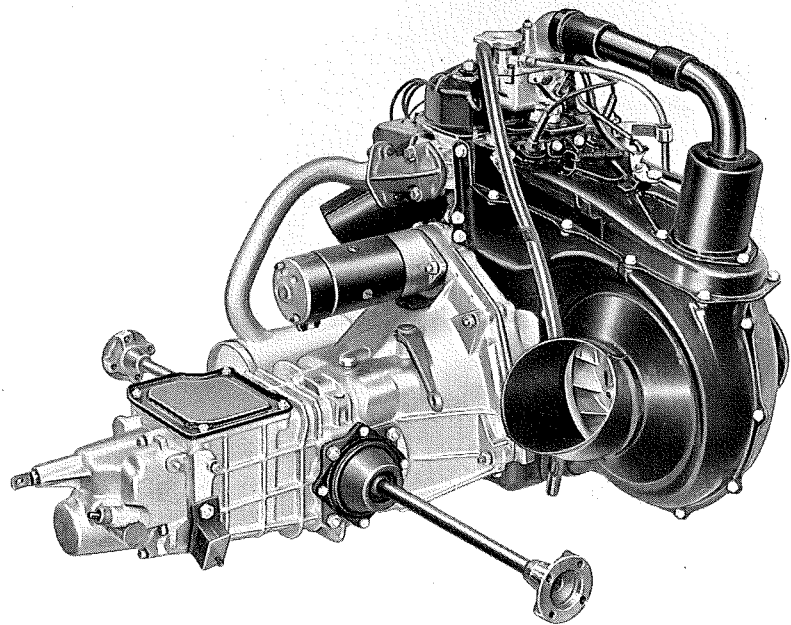


Engine cooling air circulation.

A. Air intake - **B.** Carburetor air cleaner - **C.** Blower, with cowling - **D.** Passage, sump cooling air - **E.** Conveyor hose, warm air into car - **F.** Shutter, engine cooling air draft, shown in maximum opening position (temperature 81°-87° C — 178°-188° F) - **G.** Thermostat.

Cut-away of engine and blower.





Power plant.

POWER TRAIN

TRANSMISSION AND DIFFERENTIAL

Ratios:

1st gear	3,273
2nd »	2,067
3rd »	1,300
4th »	0,875
Reverse	4,134

Differential unit and final drive

reduction ratio: Standard .	8 to 41
Optional .	8 to 39

STEERING AND WHEELS

STEERING

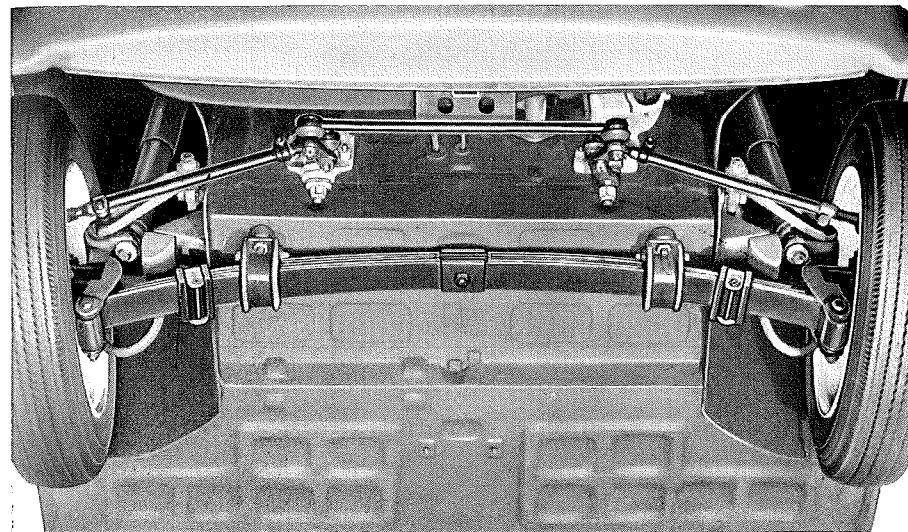
LHD; RHD optional.
Control by worm screw and
helical sector: ratio 2/26
Turning circle diameter 8,60 m (28 ft 3 in.)

WHEELS AND TIRES

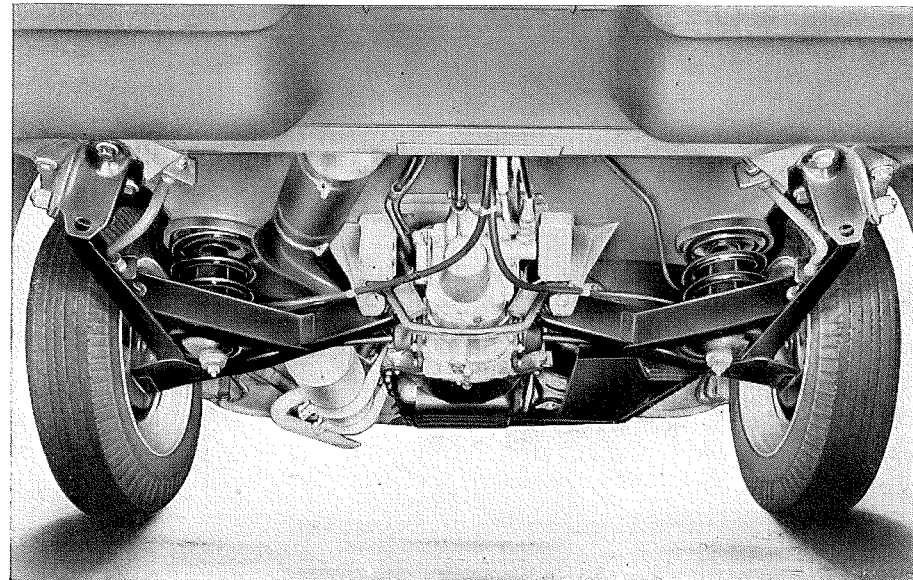
Disc wheels, with rims type . 3 1/2 x 12"
Low pres-
sure tires { CEAT 125-12" DR 52-4 Ply
PIRELLI 125-12" Rolle, 4 p.r.
MICHELIN 125-12" P.R. 4

Pressures:

	FRONT		REAR	
	kg/cm ²	p.s.i.	kg/cm ²	p.s.i.
— with reduced load	1,20	17	1,60	23
— fully laden .	1,20	17	1,85	27



Front suspension.



Rear suspension.

ELECTRIC SYSTEM

Tension 12 Volts

BATTERY

GENERATOR

capacity at 20-hr discharge rate 32 Ah

FIAT 230 Watts

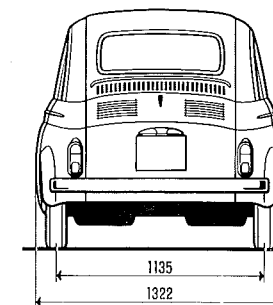
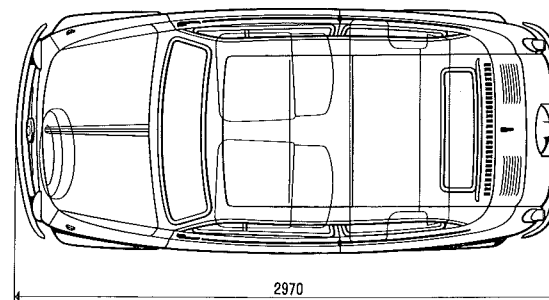
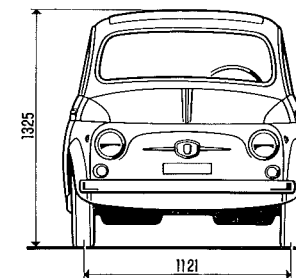
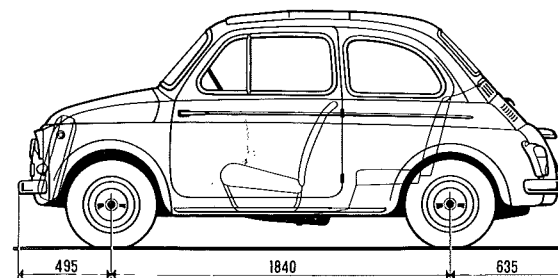
Cut-in speed } engine, abt. 1100 rpm
(lights out) } car in 4th gear 23 km/h
(14.3 m.p.h.)

STARTER

FIAT: power 0,5 kW

BULBS

LOCATION	TYPE	WATTAGE (12 Volts)
— Headlamps high beam low beam	spherical, double filament	45 40
— Front lamps direction indicators parking lights	spherical, double filament	20
— Tail lamps stop lights parking lights		
— Tail lamps direction indicators	spherical	20
— Number plate lamp	spherical	5
— Rear view mirror lamp	cylindrical	3
— Instrument panel light — High beam indicator — Generator charge indicator — Direction indicators pilot light — Insufficient oil pressure indicator — Fuel reserve indicator — Parking lights indicator	tubular	2,5



Maximum height is intended with unladen car.

495 mm = 19.5"
2970 mm = 116.9"

1840 mm = 72.4"
1135 mm = 44.7"

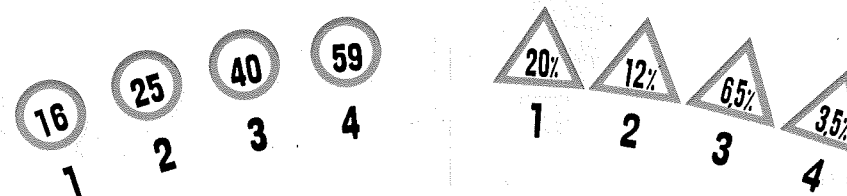
635 mm = 25"
1325 mm = 52.2"

1121 mm = 44.1"
1322 mm = 52.1"

WEIGHTS

Curb weight 500 kg (1100 lbs)
Useful load 4 passengers
Gross weight 780 kg (1720 lbs)

PERFORMANCES



Maximum speeds - m.p.h.

Maximum climbable gradients

FILL-UP DATA

ITEM	QUANTITY				REFILL
	lt.	kg	U.S. Units	G.B. Units	
Fuel tank	21	—	5.5 Gals.	4.6 Gals.	Gasoline
Sump (*)	1,750	1,570(*)	1.90 Qts.	1.56 Qts.	FIAT oil (**)
Transmission and differential	1,110	1,000	1.17 »	.97 »	} FIAT W 90 oil (SAE 90 EP)
Steering box	0,120	0,110	.124 »	.105 »	
Hydraulic brake system	0,220	0,215	.232 »	.192 »	FIAT special blue brake fluid or equivalent HD non-mineral type
Front shock absorbers (each)	0,130	0,120	.137 »	.112 »	} FIAT S. A. I. oil
Rear shock absorbers (each)	0,100	0,090	.104 »	.088 »	

(*) Total capacity of sump, lines, oil filter and crankshaft is 1,900 kg (2.22 U.S. Qts - 1.85 G.B. Qts). The amount indicated in the table is the requirement for periodical oil changes.

(**) See following table for grades:

TEMPERATURE	FIAT Multigrado oil (°)	FIAT OIL
Above 0° C (32° F) (minimum)	10 W - 30	VN (SAE 30)
From 0° to -15° C (32° F to 10° F) (min.)	10 W - 30	VI (SAE 20)
Above 30° C (90° F) (average)	20 W - 40	VE (SAE 50)

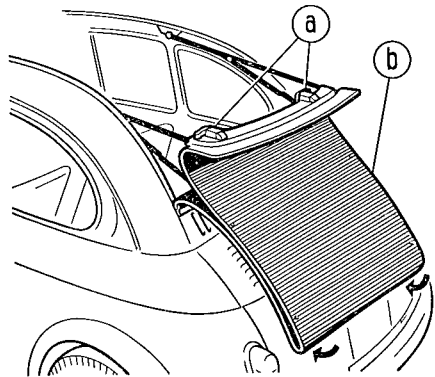
(°) **Caution** - The use of FIAT « Multigrado » oil is recommended. Always top up with oils of the same grade or type. When changing to « Multigrado » oil, the engine must be previously flushed as for detergent oils (see « Safe Motoring Hints »).

NEW 500 CONVERTIBLE

NEW 500 CONVERTIBLE

Differs from the SUN ROOF in the following:

- Roof: foldable fully back, of imitation leather and with incorporated plastic back window.
- Doors with fixed rear glass.
- Cloth-upholstered front and rear seats.
- Not fitted: wheel caps, side belt moldings, headlamp hoods and engine compartment lid nameplate.

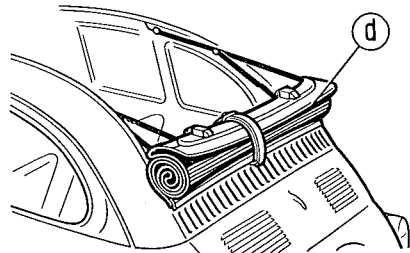
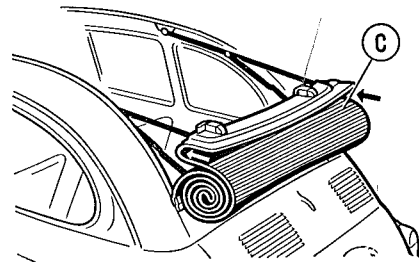


WEIGHTS

Curb weight	490 kg (1,080 lbs)
Gross weight, fully laden	770 kg (1,698 lbs)

OPENING THE ROOF

- Release the two front latches.
- Tilt bows backwards and stretch out the top.
- Roll the top in such a way that the fabric face contacting the engine lid is coiled inside the roll; raise slightly the supporting frame and pull the fabric towards the inside of car so as to cover and protect the plastic window from scratches.
- Lower the frame over the rolled top **being careful that the cooling air intake slots are well clear.** Then, secure the roll with the strap provided.



SPORT MODEL

NEW 500 SPORT MODEL

Differs from the SUN ROOF in the following:

ENGINE

Type 110.004
 Bore and stroke 67,4 x 70 mm
 (2.653" x 2.755")
 Total piston displacement 499,5 cc
 Compression ratio 8,6 to 1
 Max power { with fan
 less silencer 21 HP
 S.A.E. rating . 25 HP

VALVE GEAR

Timing data:

Intake { Opens: B.T.D.C. 25°
 Closes: A.B.D.C. 51°
 Exhaust { Opens: B.B.D.C. 64°
 Closes: A.T.D.C. 12°

Tappet clearance adjustment
 for valve timing . . 0,39 mm (.0154")

FUEL SYSTEM

Weber 26 IMB 3 carburetor.

Carburetor data:

Venturi diameter 22,00 mm
 Main jet diameter 1,25 »
 Fuel Premium gasoline

IGNITION

Centrifugal advance 12°
 Spark plugs Marelli CW 250 A

POWER TRAIN

Differential unit and final drive:

reduction ratio { standard . . . 8 to 39
 optional . . . 8 to 41

BODY

The car is available either with hard top
 or sun roof.

PERFORMANCES

SPEEDS

Maximum permissible after running in:

	km/h	m.p.h.
1st gear	26	16
2nd gear	44	27
3rd gear	70	44
4th gear over	105	65

GRADIENTS

Maximum climbable, fully laden, 2 pas-
 sengers plus 70 kg (154 lbs) of luggage:

1st gear	28%
2nd gear	17%
3rd gear	9%
4th gear	5%

WEIGHTS

Curb weight 510 kg (1125 lbs.)