
PORSCHE

914 1.7/2.0

OWNER'S MANUAL

MODEL '73

PORSCHE 914-1.7 and 2.0

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USA/CANADA

Various items shown or described in the manual may be options on certain models. Check with your authorized dealer on available options or accessories.

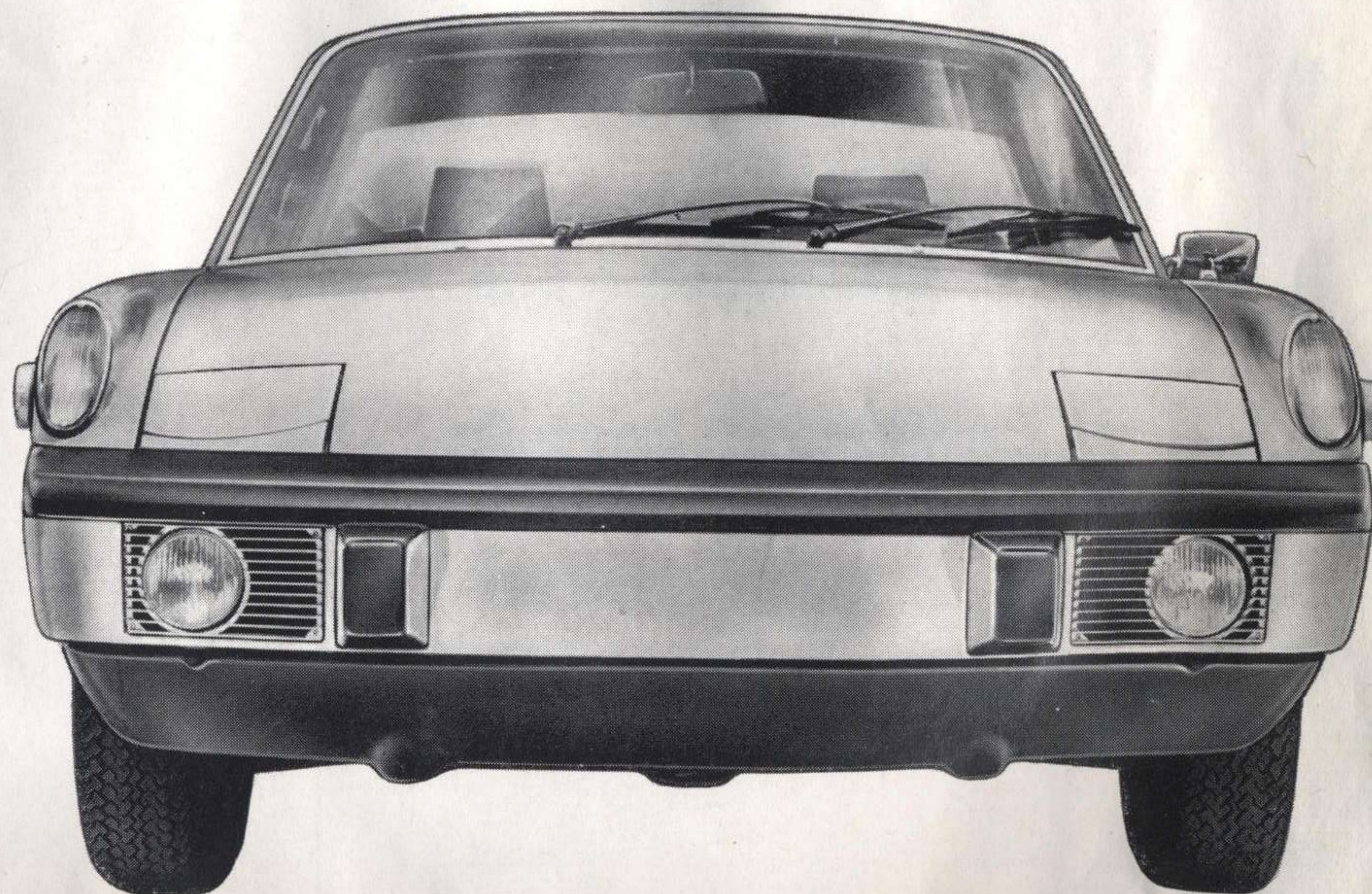
It has always been Porsche's policy to continuously make technical improvements; therefore, the right is reserved to make changes at any time during the model year without notice.

Judging by the car you have chosen, you are a motorist of a special breed. Although you probably are no novice when it comes to automobiles, we have compiled much useful information in the section entitled Operating Instructions with which you should become familiar before driving your Porsche.

In the subsequent sections you will find many additional hints that will help you to get to know your car more intimately.

We wish you many miles of safe and pleasurable driving in your

PORSCHE



Contents

Operating Instructions	Page	7
-----------------------------------	------	---

Care and Lubrication	Page	35
-----------------------------	------	----

Maintenance and Adjustments	Page	43
--	------	----

General Description	Page	65
----------------------------	------	----

Technical Data	Page	73
-----------------------	------	----

Index	Page	83
-------	------	----

PORSCHE

914 1.7/2.0

**OPERATING
INSTRUCTIONS**

Because safe driving is important to you, we suggest that you read these Operating Instructions carefully, that you maintain your Porsche properly and that you get into the habit of following the check list below, each time you use your Porsche.

Before getting behind the wheel:

- 1 – Make sure that the tires are inflated properly.
- 2 – Watch the tread wear indicator on the tires. Look for bruises.
- 3 – See that all windows are clean and unobstructed.
- 4 – Check that headlight and tail light lenses are clean.
- 5 – Check that all lights are functioning properly.
- 6 – Check turn signals and indicator light with the ignition on.

In the driver's seat:

- 1 – Position seat for easy reach of controls.
- 2 – Adjust inside and outside mirrors for unobstructed rear view.
- 3 – Fasten safety belts.
- 4 – Check brake warning light (ignition on).
- 5 – Check brake.
- 6 – Make sure that all doors are properly closed.

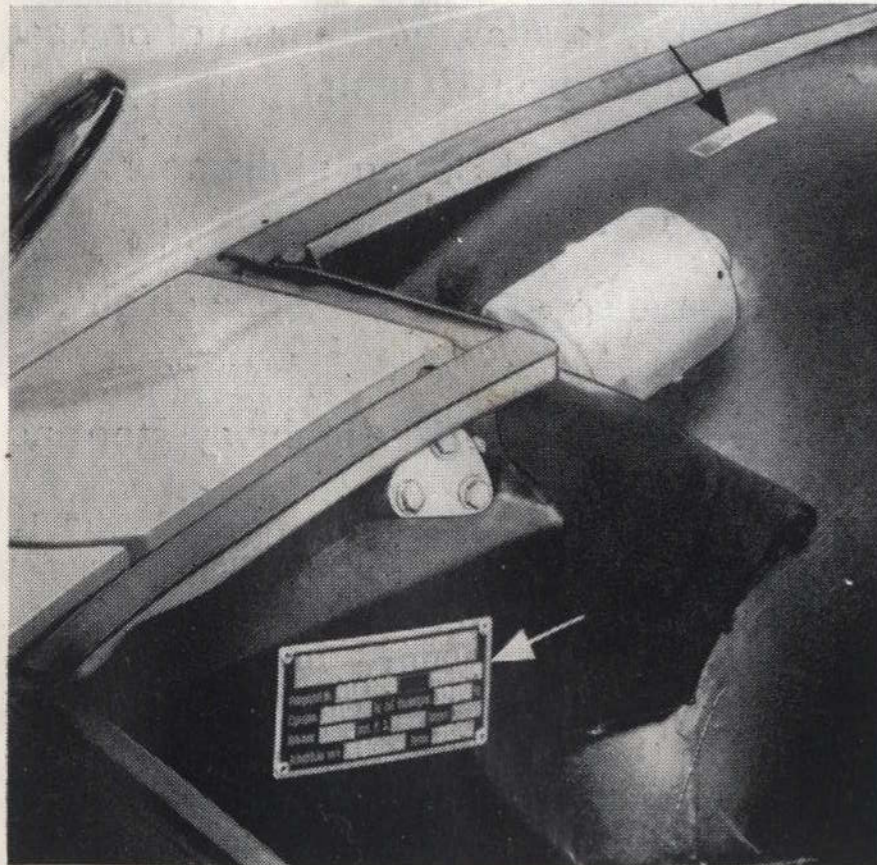
While you are driving:

- 1 – Always drive defensively. Expect the unexpected.
- 2 – Use signals to indicate turns and lane changes.
- 3 – Turn on headlights at dusk.
- 4 – Follow at a safe distance. A good rule of thumb is to allow a minimum of one car length for each 10 mph.
- 5 – Reduce speed during night hours and inclement weather.
- 6 – Observe speed limits and obey highway signs.
- 7 – When tired, get off the highway, stop and rest.
- 8 – When stopped or parked, always set the parking brake.
- 9 – When stalled or stopped for repairs, move the car well off the road. Set the emergency flasher and use road flares or other warning devices to warn other motorists.

Vehicle Identification

TYPE PASSENGER CAR
MANUFACTURED BY **VOLKSWAGENWERK AG** 08/72
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANU-
FACTURE SHOWN ABOVE.
GVWR LB. 2690 #4732900017#
GAWR LB. FRONT 1433/REAR 1433

The Safety Compliance Sticker is your assurance that your Porsche complies with all Federal Motor Vehicle Safety Standards which were in effect at the time the vehicle was manufactured. It is located on the rear doorpost on the driver's side.



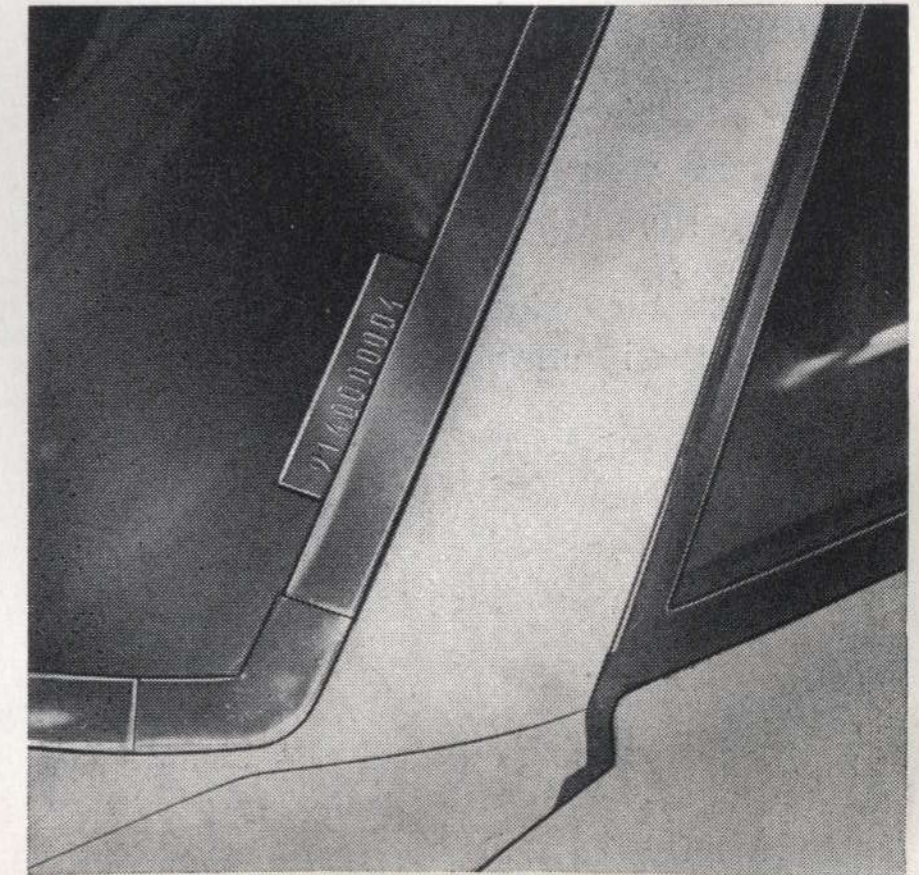
Identification Plate

The identification plate is in the front luggage compartment on the casing of the right headlight.

Chassis Number

The chassis number is in the front trunk, stamped on the right wheel well. To open front hood, pull release lever on left side under instrument panel. (See page 24.)

In accordance with Federal Safety Regulations, the chassis number of your car is located on the left windshield post and can be seen from the outside.



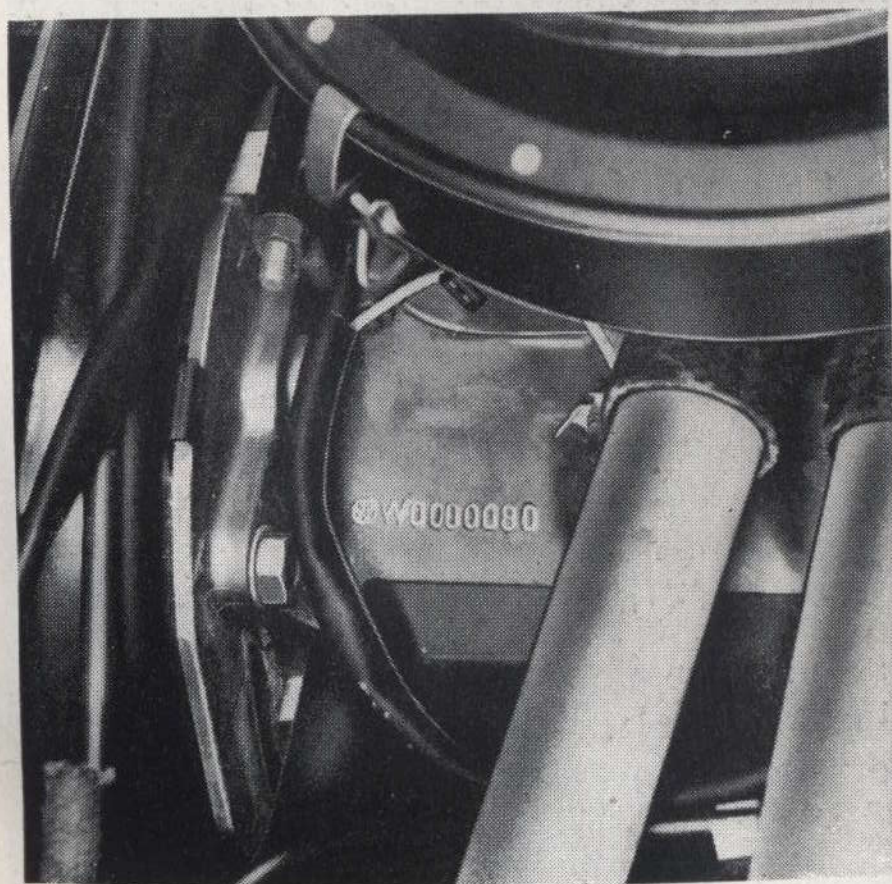
Chassis Number, Identification Plate

Chassis Number

When ordering spare parts or submitting inquiries, always include the chassis, engine, and transmission numbers in your correspondence to ensure prompt correct response.

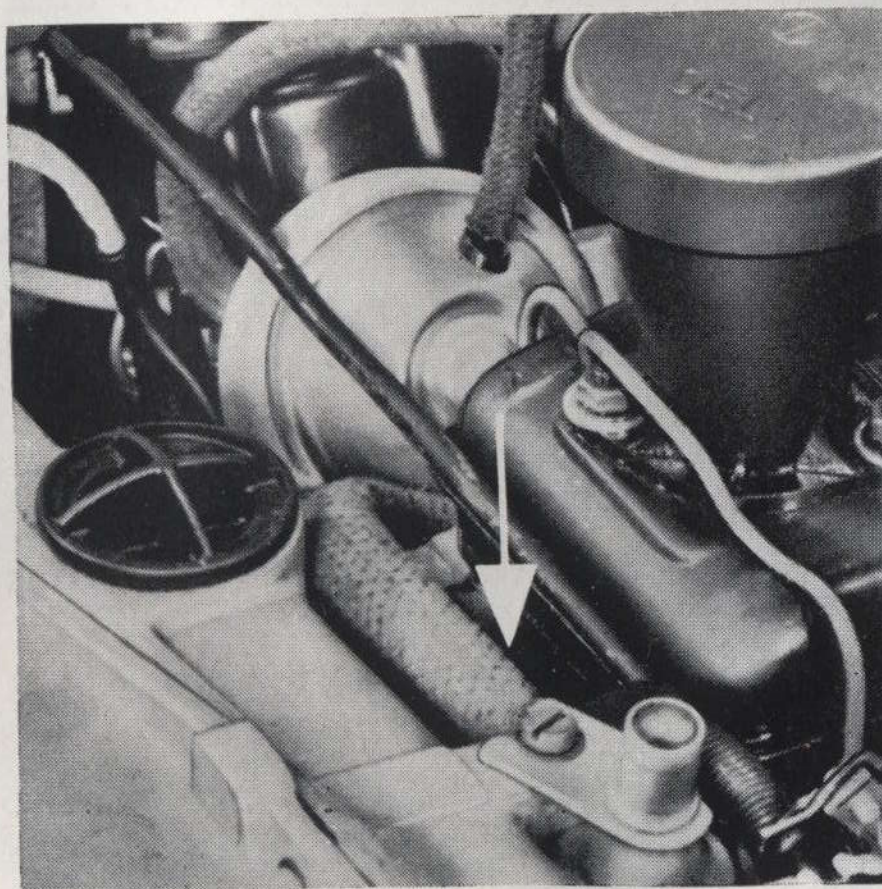
Engine Number

The engine number (1.7) is stamped on the upper left side of the crankcase.



Engine Number (1.7)

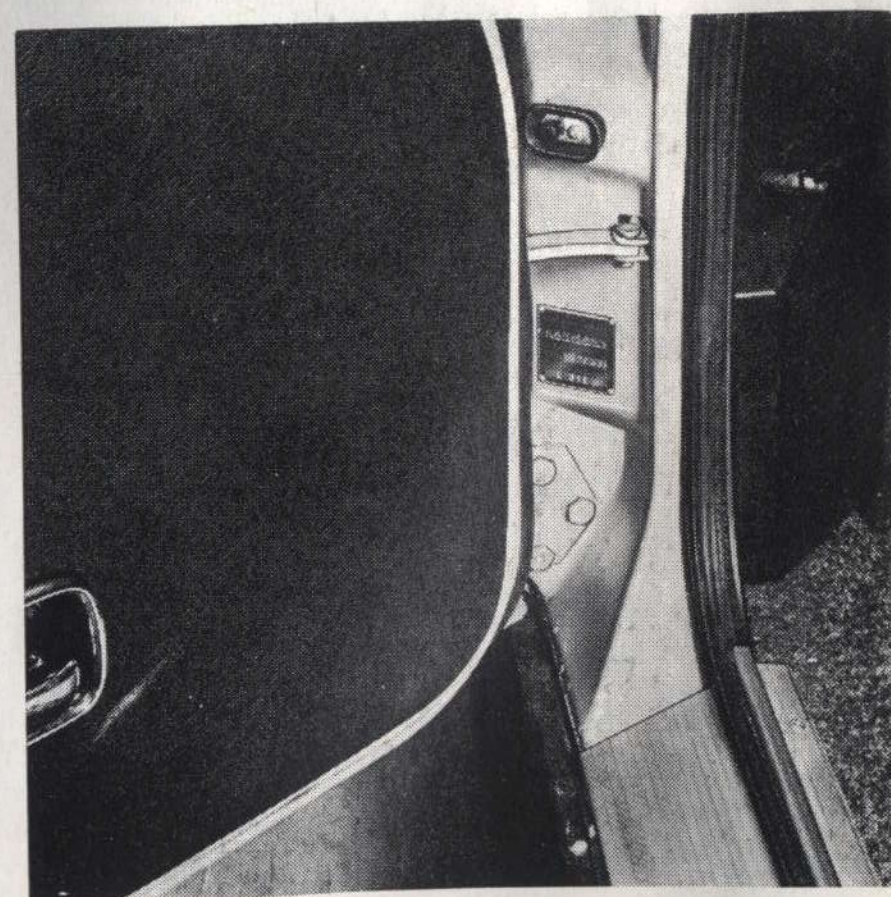
The engine number (2.0) is stamped on the upper part of the crankcase between the oil filler neck and the blower housing.



Engine Number (2.0)

Paint Number

The paint number is located on the left front doorpost.



Paint Number

Keys

Two sets of keys are supplied with the vehicle. Each set contains one master key (black handle) which fits all the locks. The second key (red handle) fits only the door locks and ignition/steering lock.

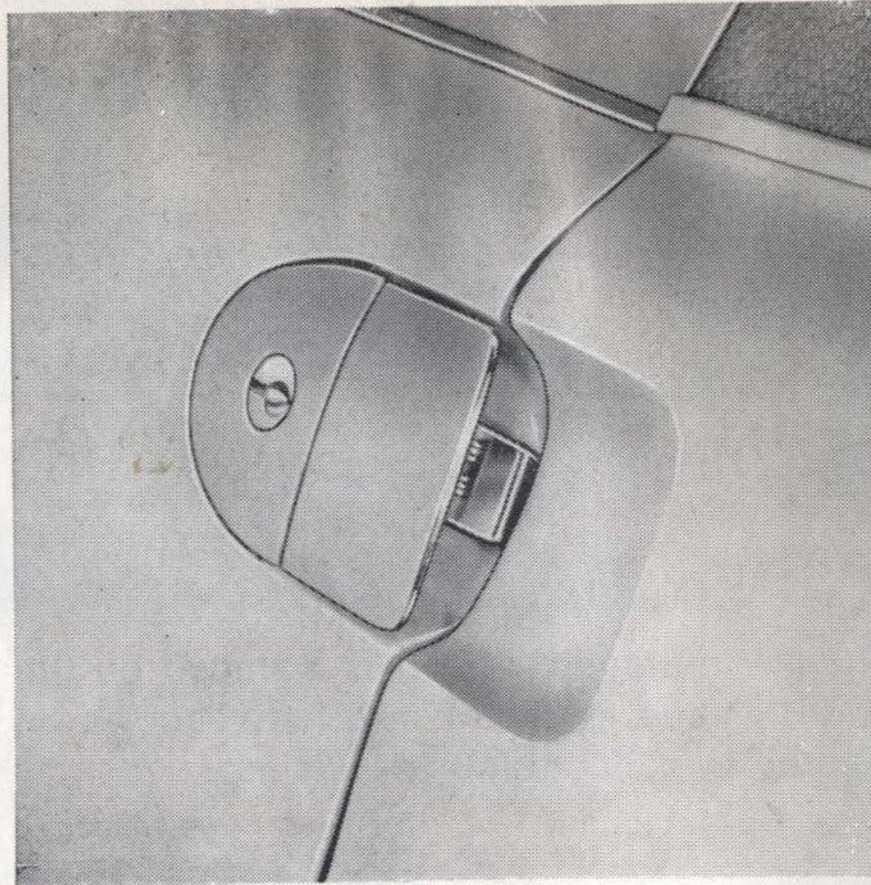
Replacement keys can only be made if the key number is given. The key number, together with the chassis numbers, is listed on a tag attached to the keys. Detach this tag and keep it in a safe place. Also, remove the glue-on label showing the key number, from the head of the keys.

It is a good idea to also keep a record of your key numbers in your wallet together with your license.

Do not invite car theft!

An unlocked car with the key in the ignition switch offers both opportunity and temptation.

Therefore, a steering wheel lock and a buzzer alarm are standard equipment in your Porsche 914. The buzzer will sound if you open the driver's door while the key is in the ignition/steering lock. It is your reminder to pull the key out of the ignition/steering lock and lock the doors.



Outside Door Handle

To lock and unlock the door -

turn the key one quarter turn to the left or right. A spring in the lock returns the key to its original position where it can be removed.

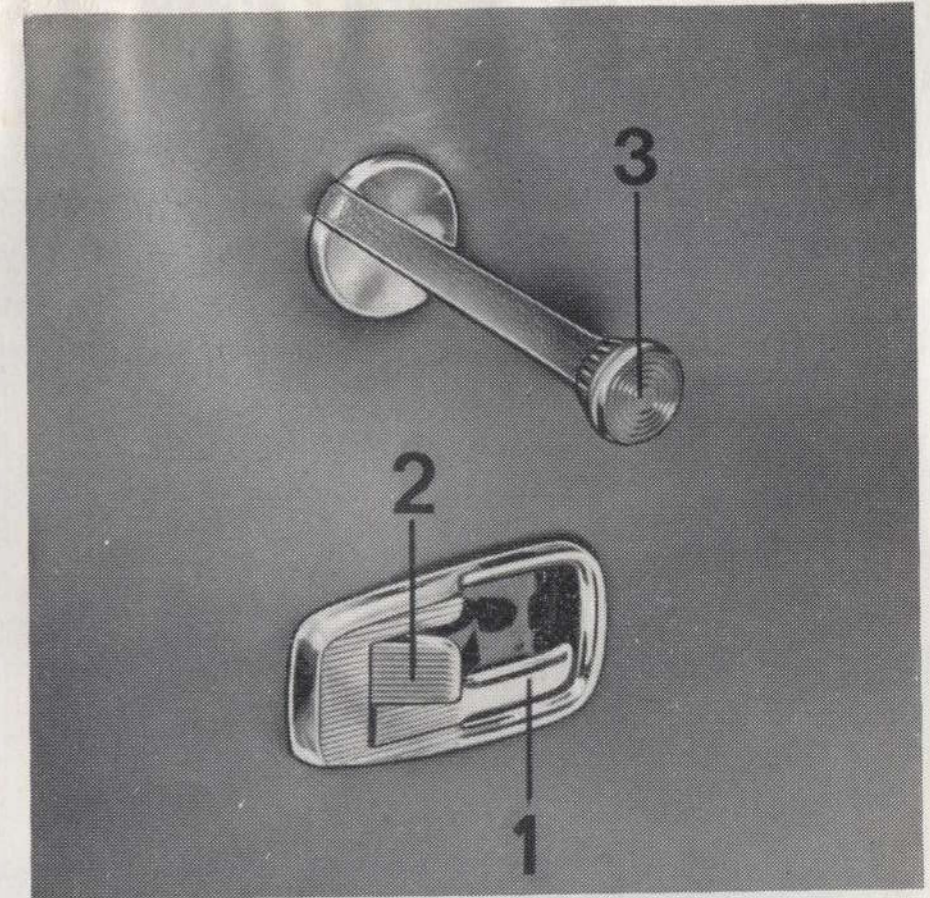
To open the door -

pull the outer door handle.

To lock doors from outside - without keys -

Depress the locking lever in the inside door handle and pull the door handle grip when closing the driver's door.

The door on the passenger's side locks without pulling the door handle grip.



- 1 Inside door handle (pull to open)
- 2 Locking lever
- 3 Window winder

Inside Door Handle

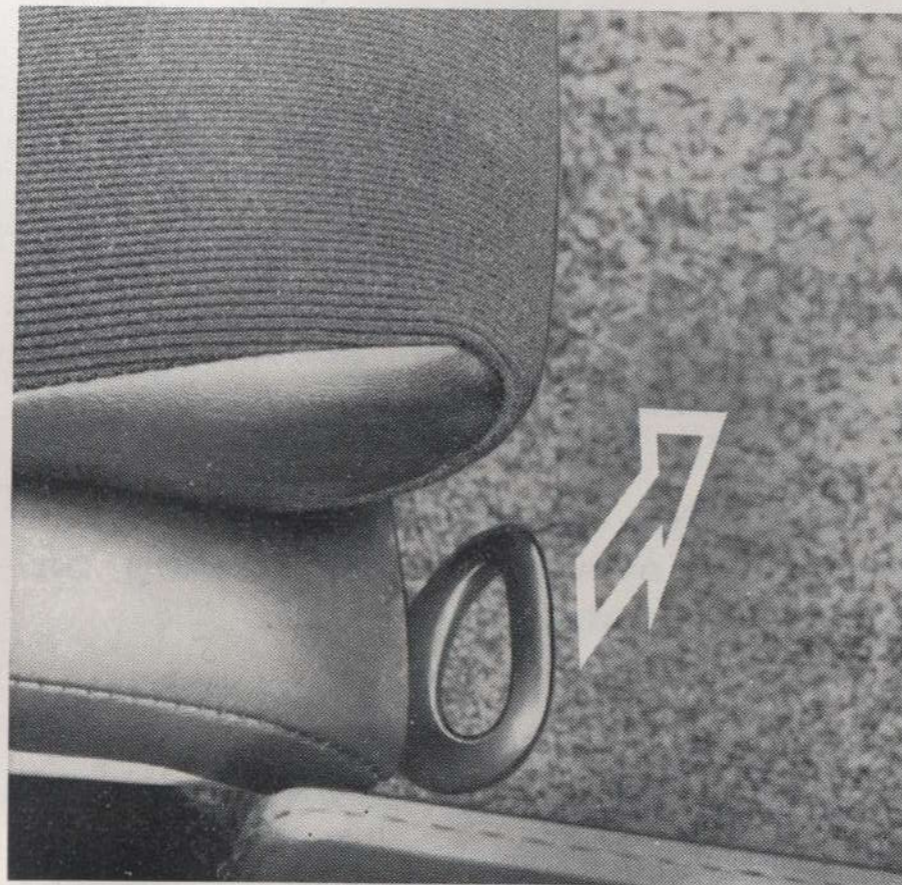
In the paneling of each door is a recess inside the door handle. The door is opened by pulling the inside door handle (1).

To lock and unlock doors from inside - depress or raise locking lever (2).

Seat Position

Both seats have forward, backward and height adjustment. After pulling up the lever on the inboard side of the seat, the seat can be pushed backward or forward. The height is adjusted by pulling up the lever on the outboard side of the seat.

Do not adjust the driver's seat while driving. Your seat may suddenly jerk forward or backward, which could result in loss of control.



Safety Belts

Your Porsche is equipped with a safety belt for each seat.

Occupants of the car should wear the belts at all times.

An audio-visual warning system will remind the driver and the passenger to put on their safety belts. The buzzer will sound and the fasten seat belt sign on the dashboard will light up when the ignition is on and the parking brake is released. The warning system will also be activated if the passenger is not wearing the safety belt.

Shoulder belts should not be worn by persons less than 4' 7" in height.

Do not wear the belts loosely.

Do not strap in more than one person with each belt.

Check buckles and fittings periodically to make sure they function correctly and check belts to ensure that the webbing has not been damaged.

Keep safety belts clean. If cleaning is necessary, wash them with a mild soap solution, without removing them from the car.

Do not bleach or dye safety belts. Do not use any other cleaning agents. They may weaken the webbing.

Check buckles for proper function. Check belt webbing and bindings periodically for wear and damage.



Fastening the belt

Sit back in your seat so that your body is supported by the backrest. Grasp the belt tongue and pull the belt in a **slow continuous motion** across your chest and lap. Insert the belt tongue into the buckle in the inboard side of the seat. Push down until it is securely locked with an audible click.

Remove slack by pulling the shoulder section of the belt in direction of arrow to make sure the belt is drawn snug around the hips.



Be sure the belt is not twisted.

The inertia-reel safety belt in your Porsche provides safety with freedom of movement. It adjusts automatically to your size and movements as long as the pull on the belt is slow. A sudden motion locks the belt.

Safety belts that were subjected to excessive stretch forces during an accident should be replaced.



Releasing the belt

To unfasten the belt, push in the orange release marked PRESS on the buckle. The belt tongue will spring out of the buckle.

To store the belt, guide the belt tongue over your shoulder to its stowed position on the door post. With the movable stop you can mark the section across your lap and at the same time keep the belt tongue from gliding down when the belt is wound up. Make sure the belt is fully wound up on the inertia reel. This prevents the belt from lying about and becoming obstructive.

Ignition/Steering Lock

The steering is equipped with an anti-theft ignition lock.

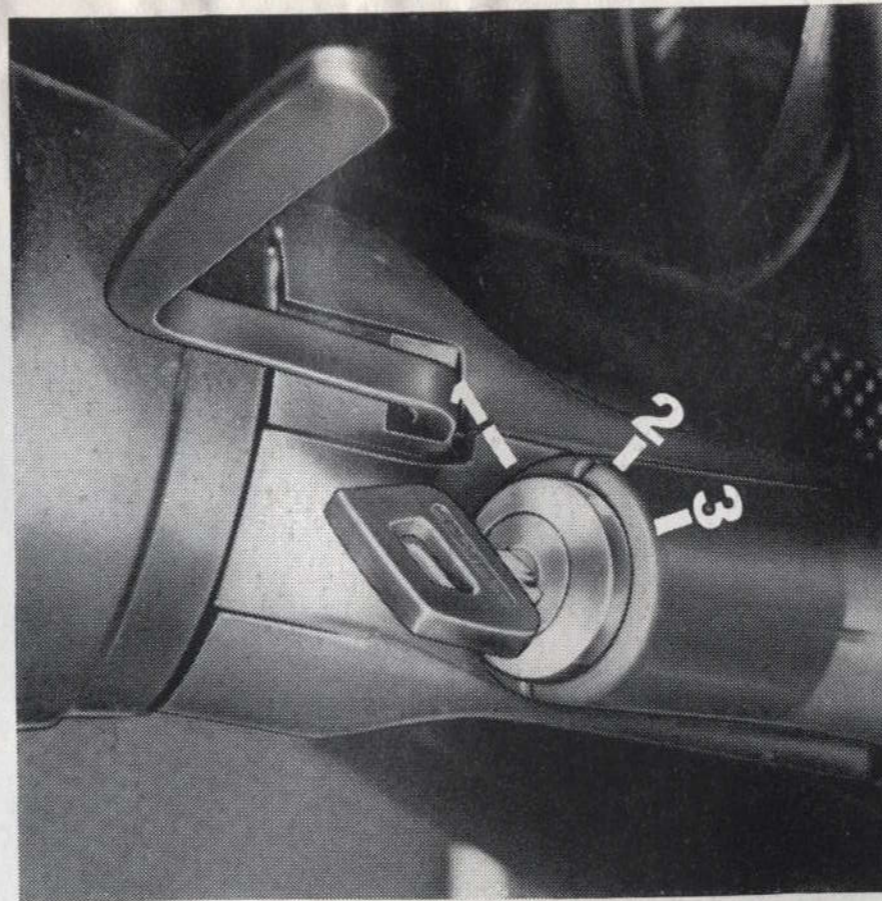
Fasten safety belts.

Make sure the gearshift lever is in Neutral before turning the ignition key.

The ignition key positions are as follows:

- 1 – Ignition off / Key can be removed / Steering locked
- 2 – Ignition on / Warning lamps for oil pressure, alternator and brake system light up (the brake warning light flashes until the engine is running and the parking brake has been completely released, assuming that the brake system is not defective) / Key cannot be removed
- 3 – Starter operates
While the starter is cranking the engine, the circuits for headlights and wiper motor are interrupted.

To remove the key and to lock the steering, turn the key back to position 1 and pull it out. Turn the steering wheel until it locks.



The starter should not be operated for more than 10–15 seconds at a time. If the engine does not start the first time or stalls at any time, the ignition will have to be switched off and then on again. The non-repeat lock in the switch prevents the starter from being operated when the engine is running and thus from being damaged.

The steering column will lock when you remove the key. Therefore DO NOT REMOVE the key while you are driving or as the car is rolling to a stop.

Never start or let the engine run in an enclosed unventilated area. Exhaust fumes from the engine contain carbon monoxide which is colorless and odorless. Carbon monoxide, however, is a very harmful gas, and can be fatal when inhaled.

Starting Engine

The electronic control unit of the fuel injection engine, which is controlled by temperature-dependent resistors in the crankcase and in the cylinder head, automatically provides the correct fuel air mixture required for starting.

Before starting, depress the accelerator pedal fully and keep at full throttle until the engine runs.

This applies when the engine is warm or cold and during all weather conditions.

During cold weather depress the clutch pedal when starting, so that the starter only has to crank the engine.

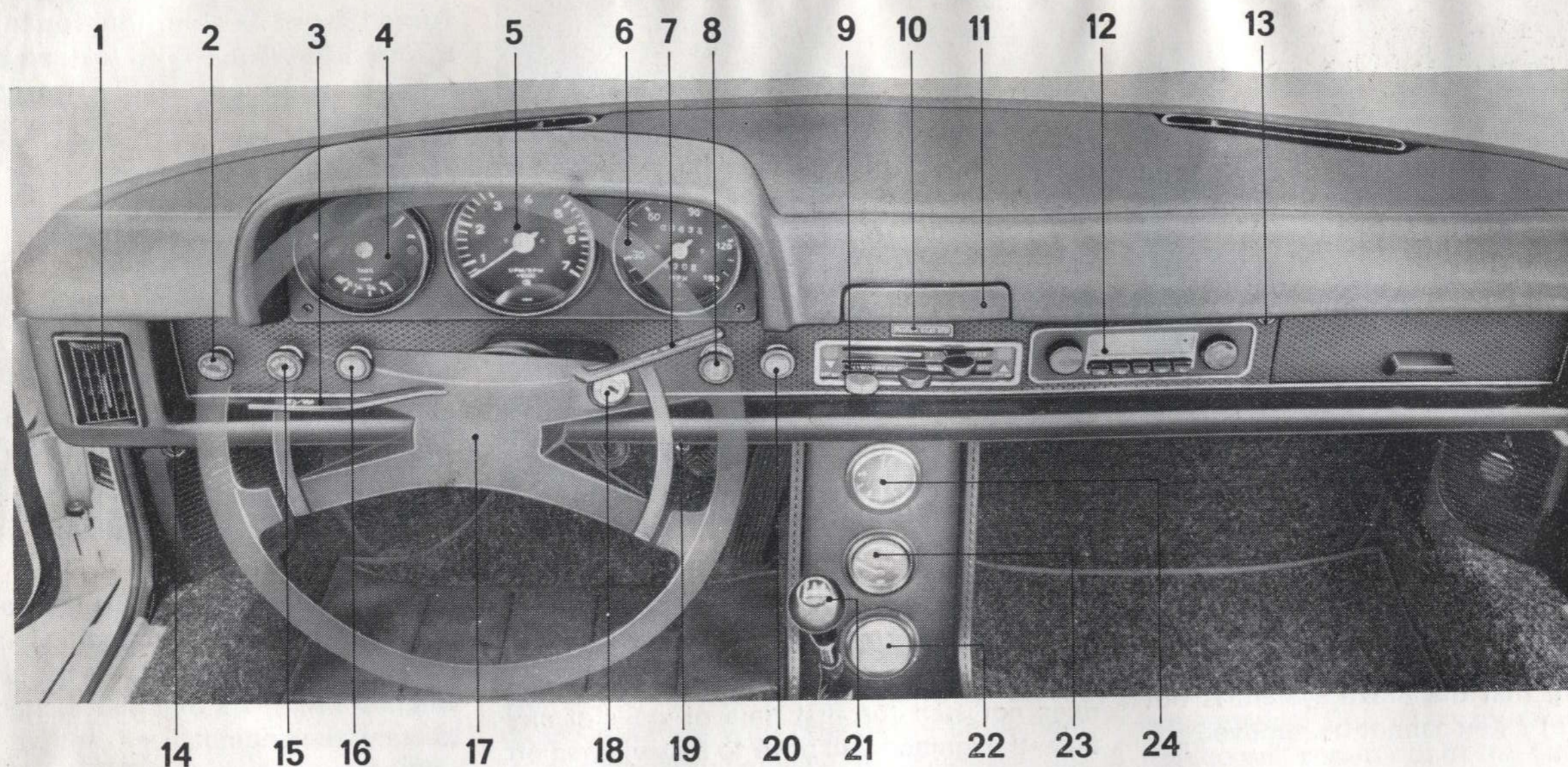
In freezing weather do not turn on lights, heater and other electric equipment until the engine is running.

Once the engine has started, release the ignition key without delay.

If you have to repeat the starting procedure it is necessary that you return the key to the "off" position.

Do not warm up engine in Neutral. Drive off immediately using only low engine rpm for the first few miles.

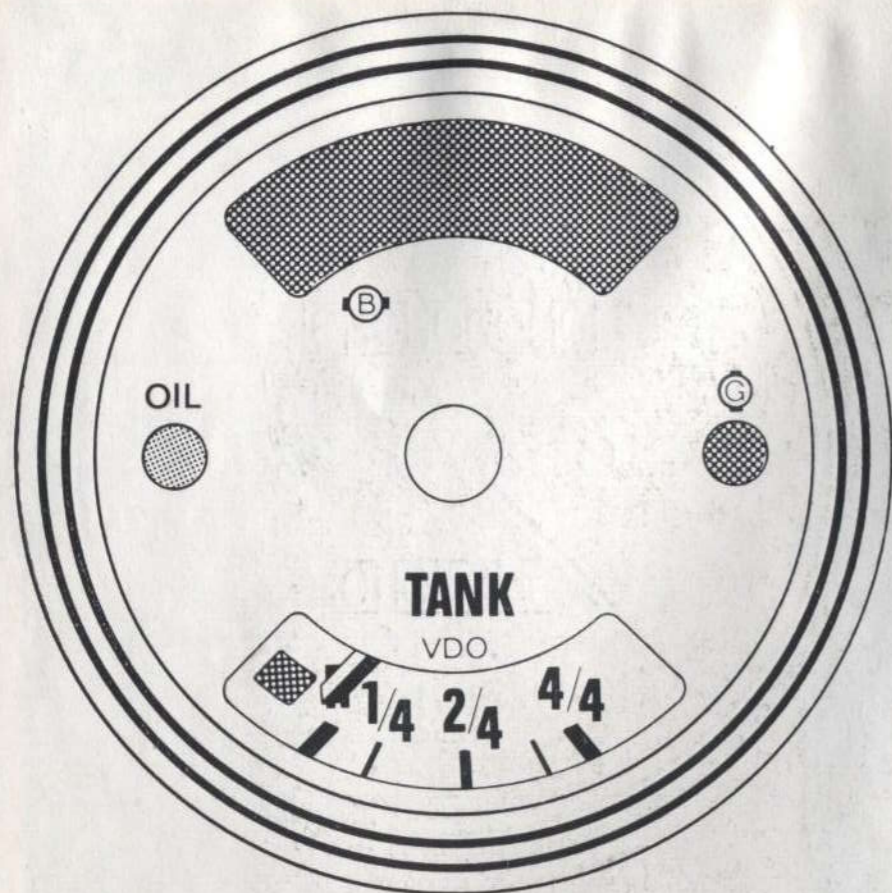
Instrument Panel (914-2.0)



- 1 Ventilation and defogging outlets for front side windows
- 2 Headlight switch
- 3 Turn signal/headlight dimmer switch lever
- 4 Fuel gauge
- 5 Tachometer
- 6 Speedometer
- 7 Windshield wiper/washer lever

- 8 Cigarette lighter
- 9 Heating and ventilation control levers
- 10 Safety belt warning sign and light
- 11 Ashtray
- 12 Radio (optional)
- 13 Glove compartment lock
- 14 Front hood release
- 15 Emergency flasher switch
- 16 Fog light switch (optional)

- 17 Horn ring
 - 18 Ignition/steering lock
 - 19 Trip odometer (reset control)
 - 20 Rear window defogger switch (optional)
 - 21 Gear shift lever
 - 22 Voltmeter
 - 23 Oil temperature gauge
 - 24 Clock
- (optional for type 914-1.7)



Fuel Gauge

The fuel gauge dial contains the brake warning light (B), the oil pressure warning light (OIL), the alternator warning light (G), and the fuel gauge.

The **fuel gauge** includes a red warning light which goes on when the fuel supply is below 1.6 US gal. (1.3 Imp. gal.).

These controls function only when the ignition is on.

Brake Warning Light (red)

The brake warning light monitors the parking brake as well as the hydraulic brake system. The brake warning light flashes when the ignition is on. It goes out when the parking brake is fully released and the engine is running. If the brake warning light fails to come on (ignition on), the bulb should be checked.

Your Porsche is equipped with a dual circuit brake system. Both circuits, one for the front brakes and one for the rear brakes, can function independently.

If the warning lamp lights up while you are applying the brakes, one of the two brake circuits may have failed.

The other brake circuit will still operate, but a longer distance and greater pedal pressure are required to bring the car to a halt.

Continued operation of a car with defective brakes is dangerous.

Pull off the road and stop.

Try out the effectiveness of the brake by carefully starting and stopping on the road shoulder. If you judge that the brakes operate safely enough to take you to the nearest dealer, proceed cautiously and at low speed. If you do not feel safe to continue, have your car towed to the nearest dealer for repair.

Oil Pressure Warning Light (green)

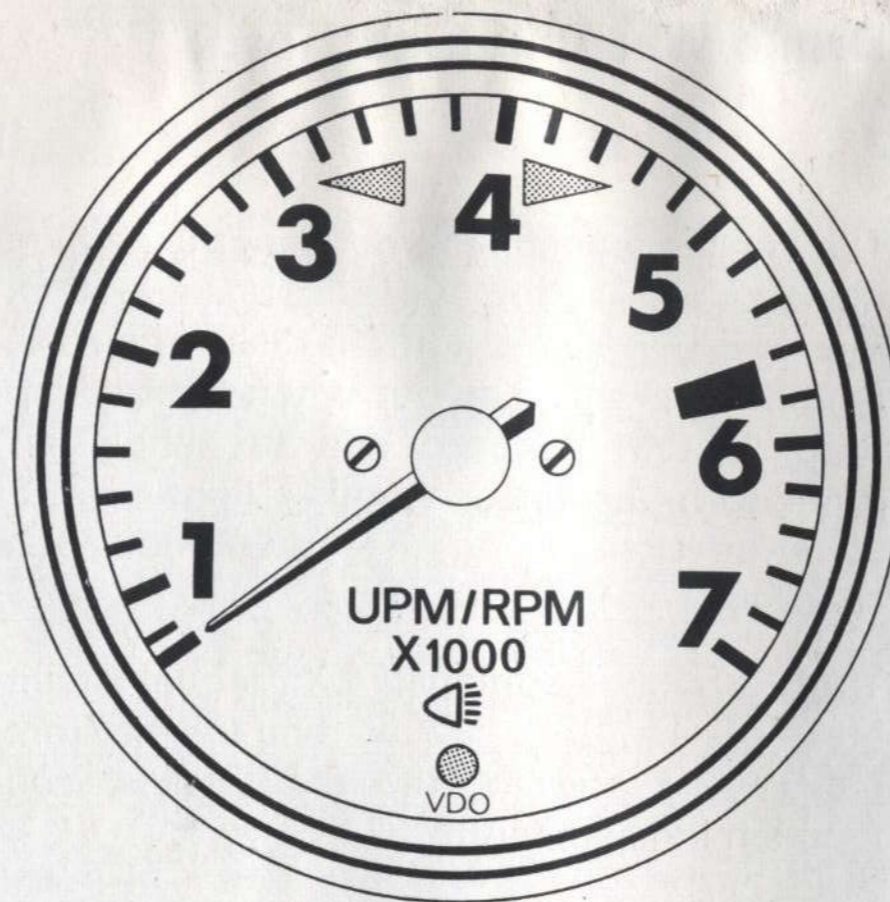
The oil pressure warning light lights up when the ignition is turned on; it goes out when the running engine has reached the correct oil pressure. Should it light up while driving, it indicates a malfunction in the lubricating system. In this case the car must be stopped at once and the oil level checked. If the oil level is normal (see page 40), do not drive on. Contact your nearest authorized dealer. An occasional flickering of the control light at idle speeds and normal operating temperature after a long high speed trip is no cause for concern if the light goes out upon acceleration.

Alternator Warning Light (red)

The alternator warning light monitors the alternator. The light will come on when the ignition is turned on and will go out after starting as the engine speed increases. If the light should flicker or come on fully while driving, the V-belt may be loose or broken. However the cause may also lie in a defective voltage regulator or alternator. In this case you can drive on, but try to get the vehicle to an authorized dealer as soon as possible because the battery will soon run down.

Tachometer

When the ignition is switched on the transistorized tachometer shows the engine speed. About 5000 rpm. should not be exceeded,



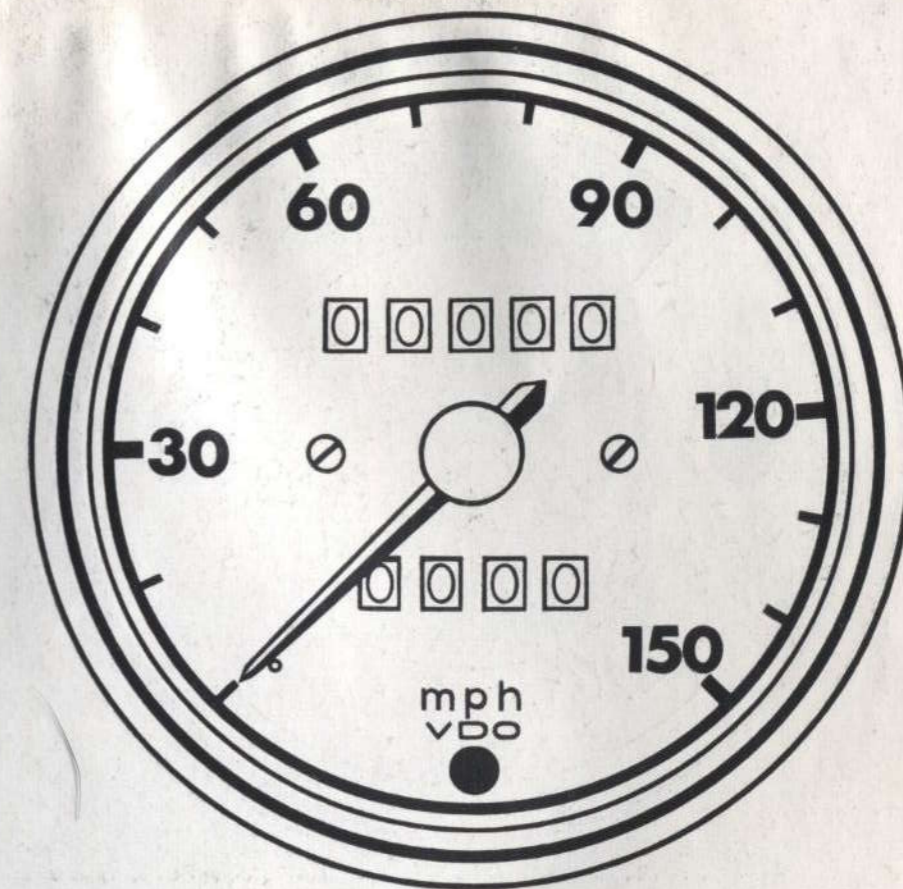
except when traffic conditions require it for short periods. Never exceed the red mark on the tachometer. Also located on the tachometer are the control lights for the turn signals and the high beam.

Turn Signal Indicator (green)

The turn signal indicator lights up simultaneously with the turn signals. A faster flashing rate indicates malfunction of the turn signal lamps.

High Beam Indicator Light (blue)

The high beam indicator light comes on as soon as the high beams are switched on. It is located in the lower part of the tachometer.

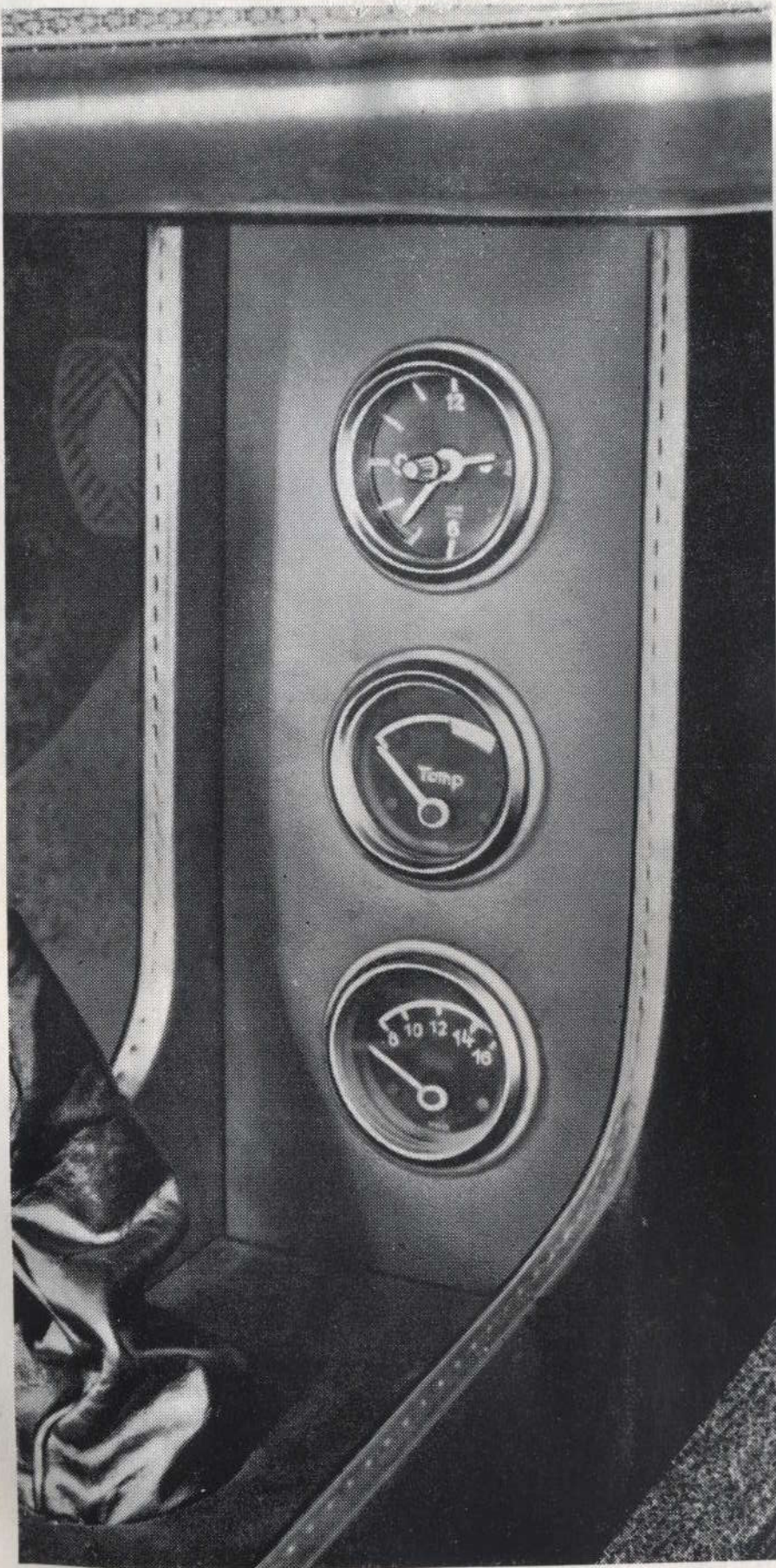


Speedometer

The speedometer indicates speed in miles per hour. The odometer records total miles driven. It is in the upper part of the dial. The **trip odometer** can be reset to zero at any time by turning a knob under the instrument panel.

Parking Light Indicator (green)

The parking light indicator is located in the speedometer. The lamp lights up when the parking lights are switched on; it goes off automatically when the headlamps are switched on.



Center Console (optional for type 1.7)

Clock

The electric clock is wound up automatically if battery is connected and charged. The clock can be reset by first pushing the button in and then turning.

Oil Temperature Gauge

The needle of the oil temperature gauge will normally stay within the white field and vary depending on outside temperature or engine load. If, however, the needle enters the red field, stop and check the oil level. If the oil level is not as specified (see page 40), do not continue driving, but have the cause traced and corrected.

If you have enough oil, you may proceed at reduced speed. The needle should return to the white field when the engine oil has sufficiently cooled down. If the needle remains in the red field, contact your authorized dealer for assistance.

Note: Excessively high oil temperatures may be caused by an insufficient oil level, improper timing or an inadequate air-fuel mixture or the use of gasoline with a lower than required fuel octane rating (see sticker near the fuel filler neck).

If you are not sure about the cause of excessive oil temperature in your car, stop and contact an authorized dealer.

Voltmeter

The voltmeter indicates the amount of charge stored in the battery.

Even when loads are switched on, e. g. headlights, rear window defogger, the needle should move between 12 and 14 volt.

If the reading is constantly below the 12 volt mark, the charging condition should be checked. If necessary, the battery should be replaced.

A temporary voltage decrease below 12 volt when starting the engine is normal.

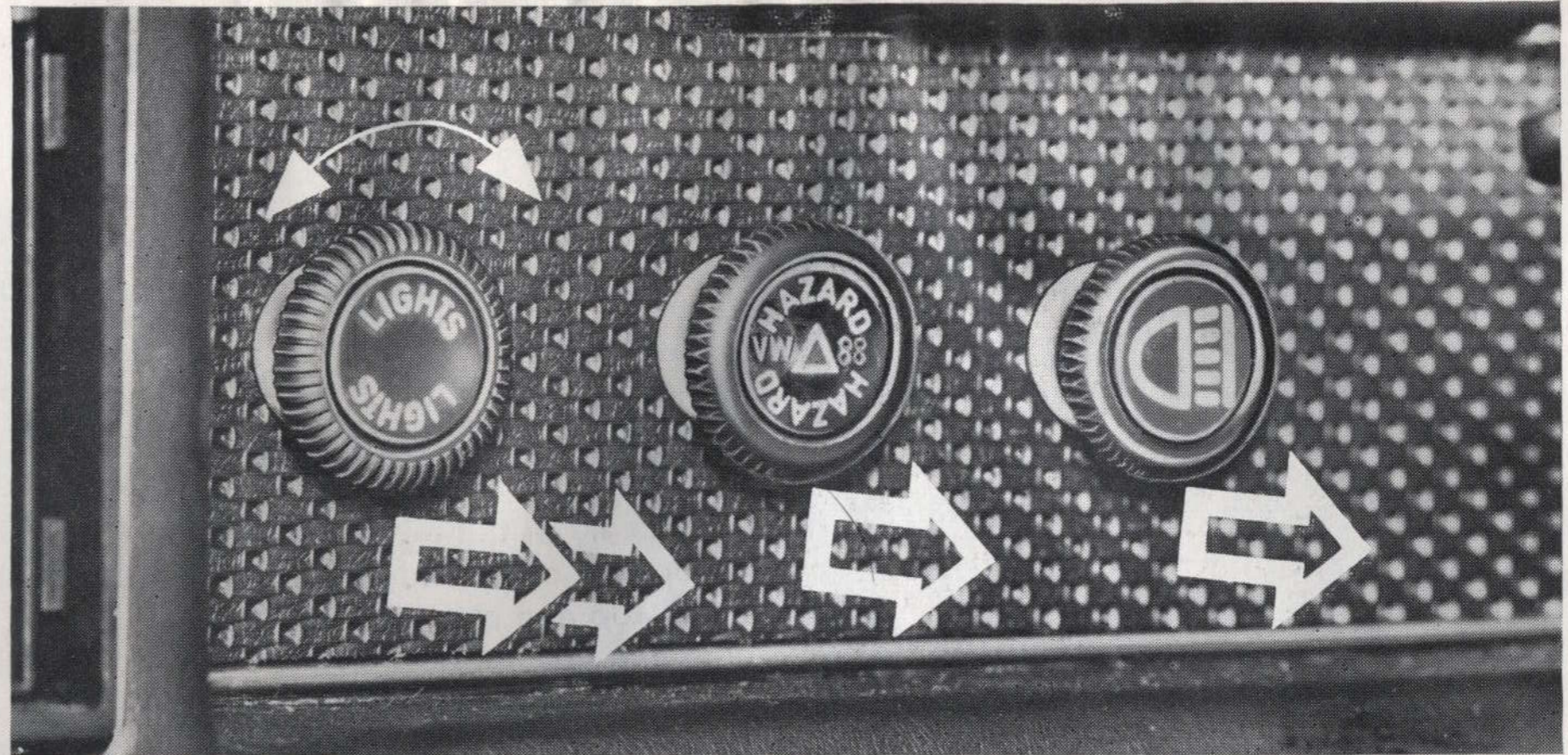
Light Switch

Parking lights – pull out knob to first stop.

Headlights – pull out knob to second stop. The tail lights, the license plate lights, side marker lights, and the instrument lights are on in both positions. In the first position, the green parking light indicator in the speedometer also lights up. In the second position the retractable headlights open.

Instrument lights – the instrument lights come on automatically when parking lights or headlights are turned on.

The brightness of the instrument lights can be adjusted by turning the light switch.



Emergency Flasher Switch (Hazard)

All four turn signals will flash in unison when the emergency flasher switch is pulled out. A red warning light in the switch indicates that the system is working. This system warns approaching drivers when the car has to be stopped in traffic due to an emergency. The emergency flasher can be switched on independently of the position of the ignition switch.

The flasher switch knob is illuminated when the headlights or parking lights are turned on.

Move the car well off the road when stalled or stopped for repairs.

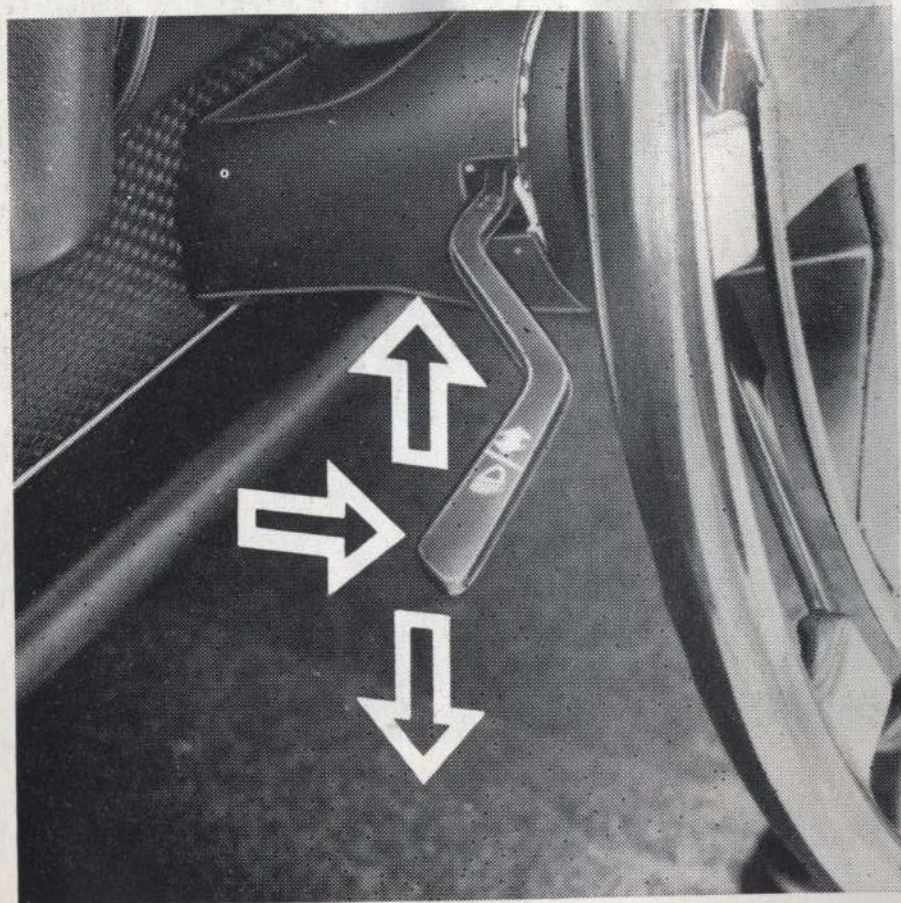
Do not remain in the car.

Fog Light Switch

(optional)

The two fog lights are turned on through a push-pull switch. A red indicator light glows in the knob as long as the fog lights are on.

Turn Signal/Headlight Dimmer Lever



With ignition on:

lever up — right turn signal
lever down — left turn signal

The turn signals are cancelled automatically after completing a turn when the steering wheel returns to a straight-ahead position.

Lane changer

To indicate your intention when changing lanes on expressways, slightly lift or depress the lever to an intermediate position. The lever will return to the OFF POSITION when released.

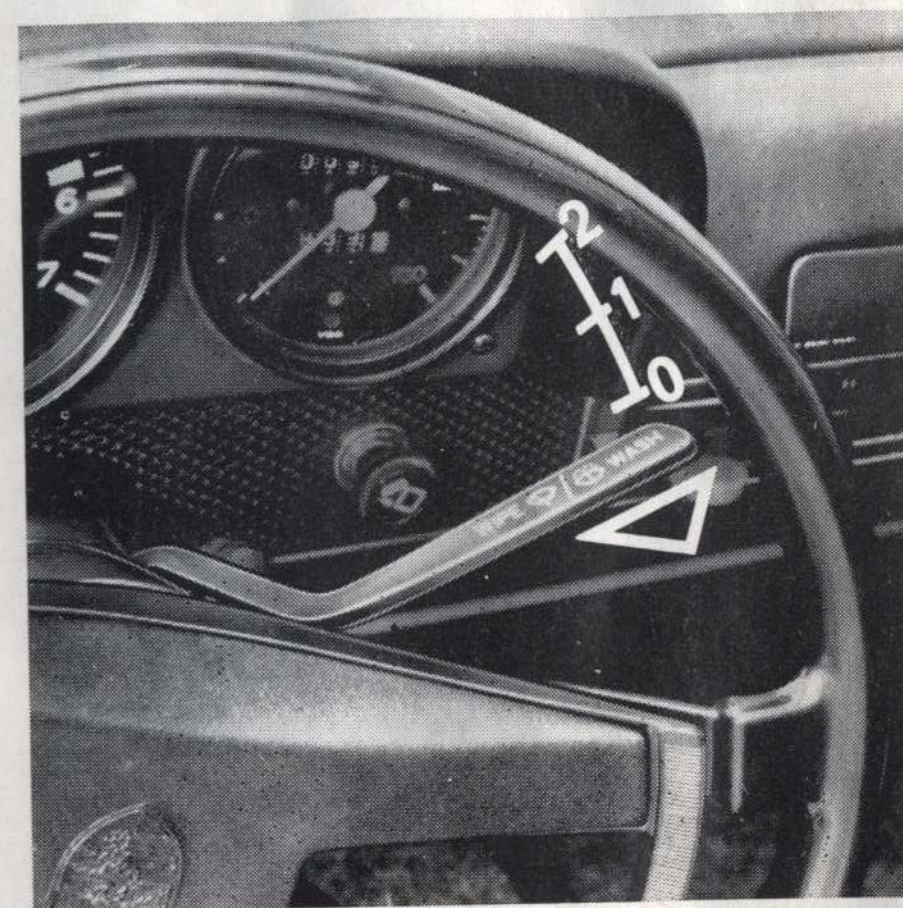
With ignition off:

lever up — right hand parking light
lever down — left hand parking light

High beams

(Headlight switch all the way out)

Pull the turn signal/headlight dimmer lever toward the steering wheel to select high or low beam. The blue indicator light in the tachometer comes on when high beams are switched on.



Windshield Wiper/Washer Lever

The windshield wiping system operates at two speeds.

Lifting lever to first stop — low speed

Lifting lever to second stop — high speed

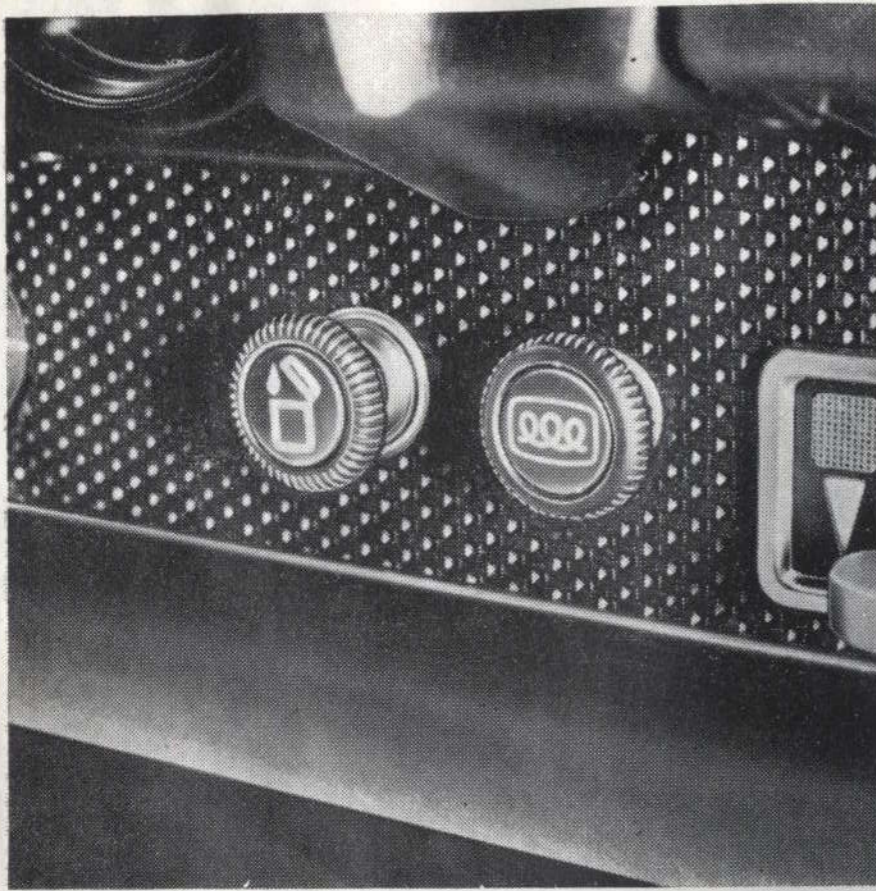
If you just lift the lever before reaching the first stop, the wipers will wipe as long as the lever is held in this position and come to a stop when released.

The pneumatic windshield washer is actuated by pulling the lever toward the steering wheel. The washer can be operated from any selected wiping position.

Windshield wiper/washer switch with intermittent action and wipe/wash automatic (optional)

Intermittent action - press the lever down from position "0". The wipers then move about once every 10 sec.

Wipe/wash automatic - pull the lever towards the driver from position "0". The pneumatic windshield washer pump is then actuated. When releasing the lever, the wipers move automatically about two to three times.



Cigarette Lighter

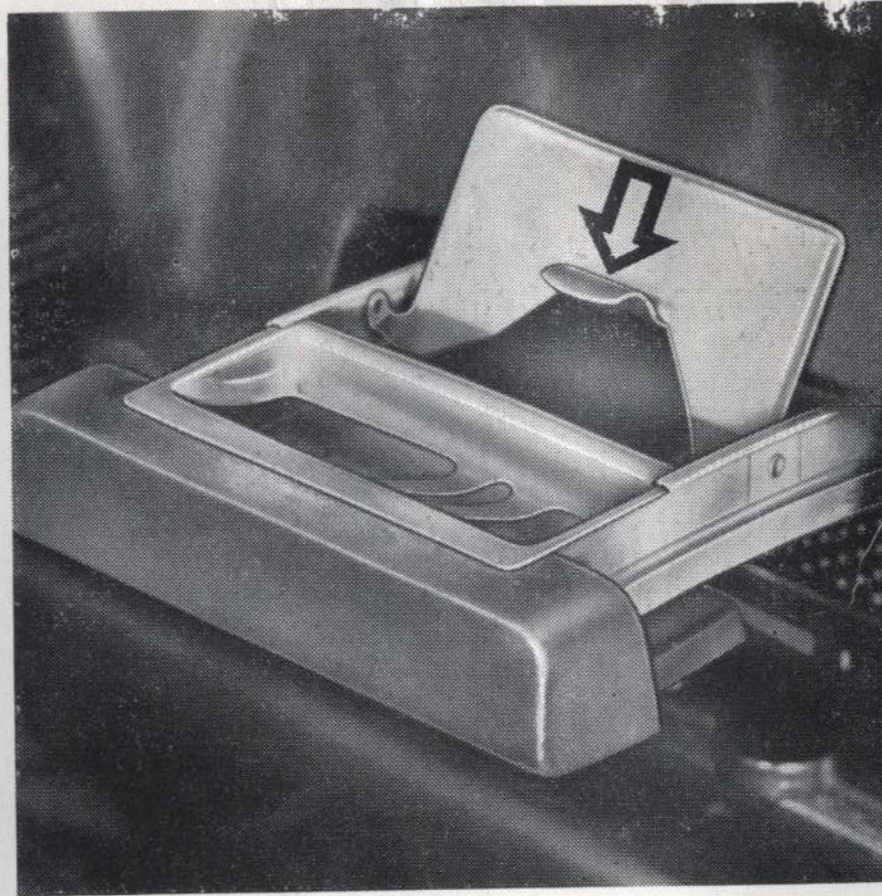
To operate push in knob. When ready for use the lighter will "snap" back.

The cigarette lighter works only when ignition is on.

Rear Window Defogger (optional)

The electric rear window defogger can be switched on by a push-pull switch on the instrument panel. The heating element greatly reduces fogging or icing of the rear window even in adverse weather.

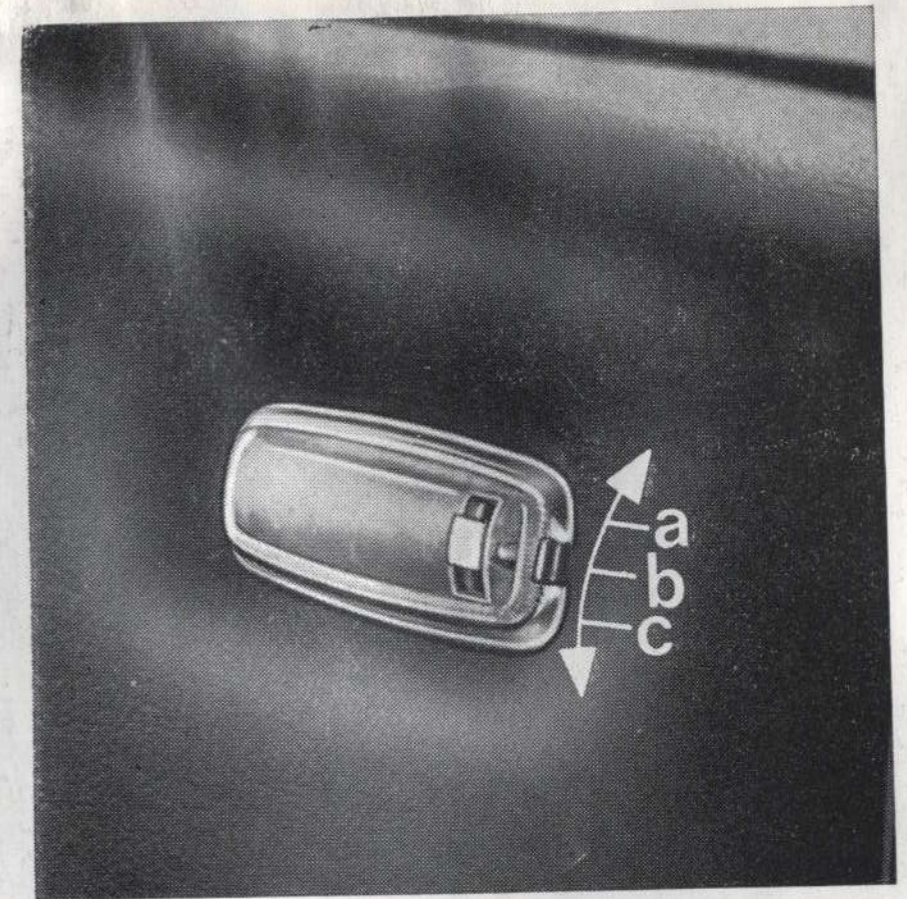
The rear window defogger works only when ignition is on.



Ashtray

To empty open the ashtray fully, depress the retaining spring and remove the ashtray.

To insert, push the ashtray back in again.

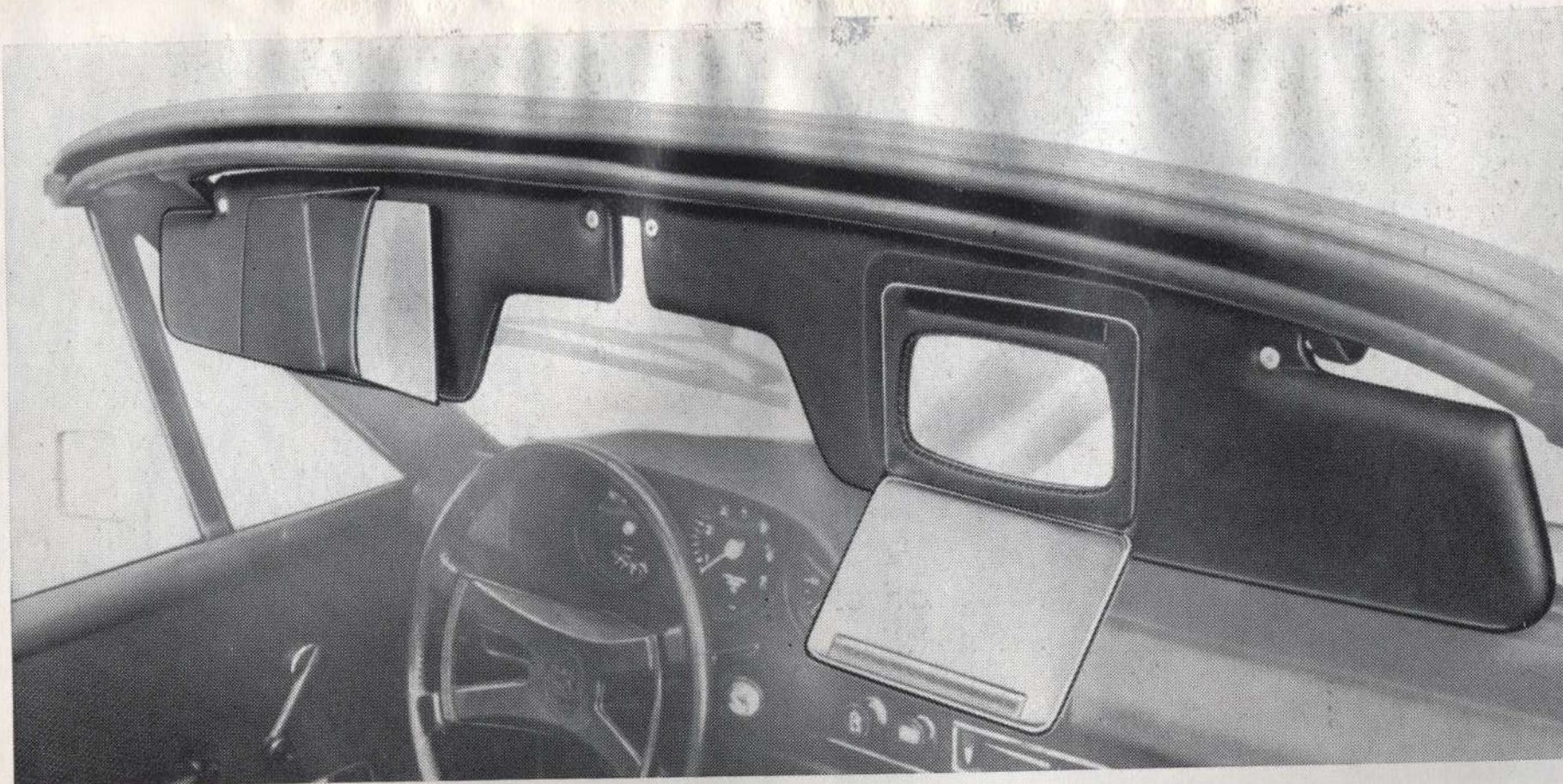


Interior Light

The illustration above shows the interior light, installed between the seat backs.

The rocker switch has 3 positions.

- a – Light switched on (with doors closed)
- b – Light switched off
- c – Light goes on automatically when either door is opened

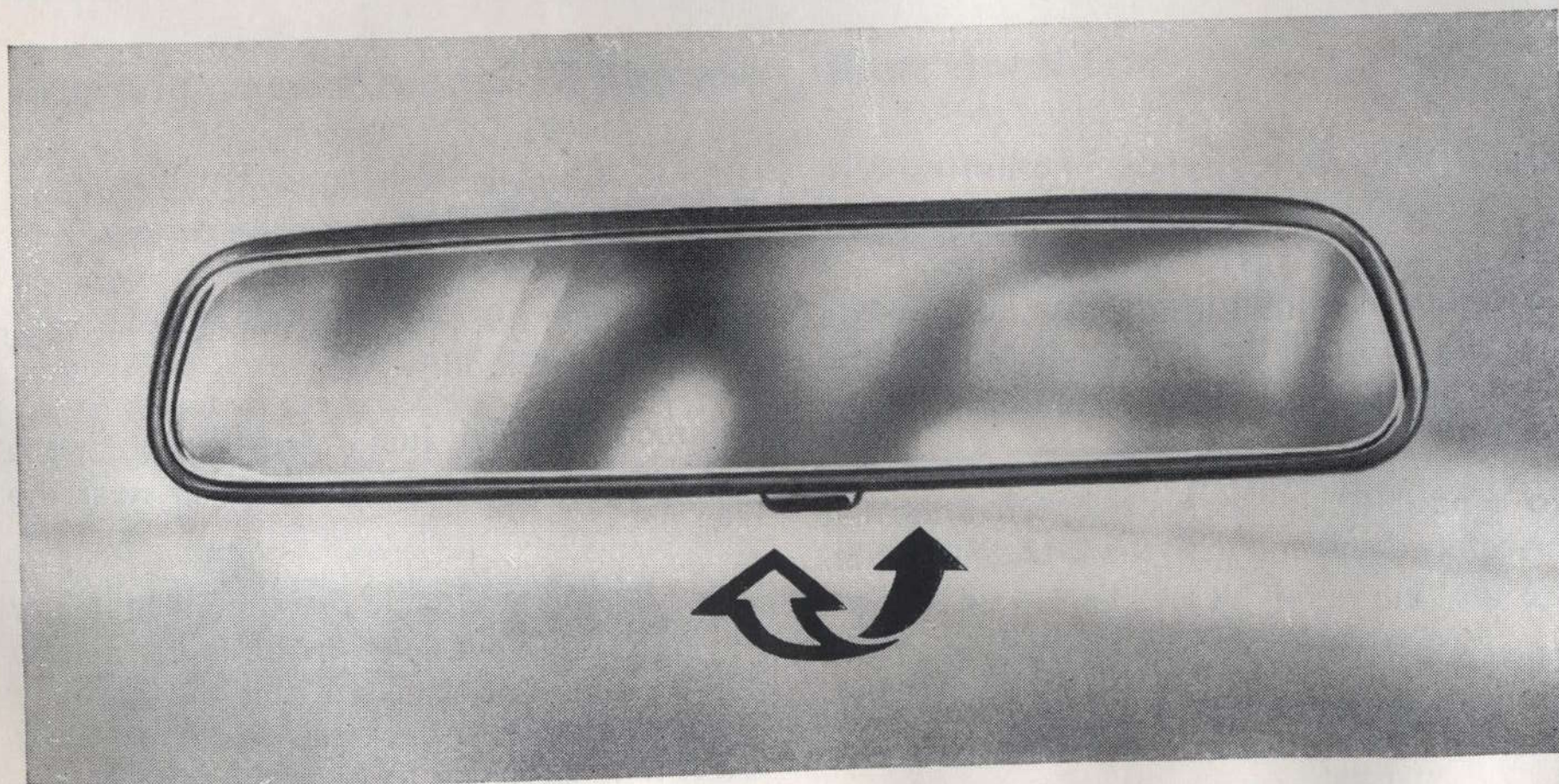


Sun Visor

The sun visor on the driver's side is provided with a map pocket.

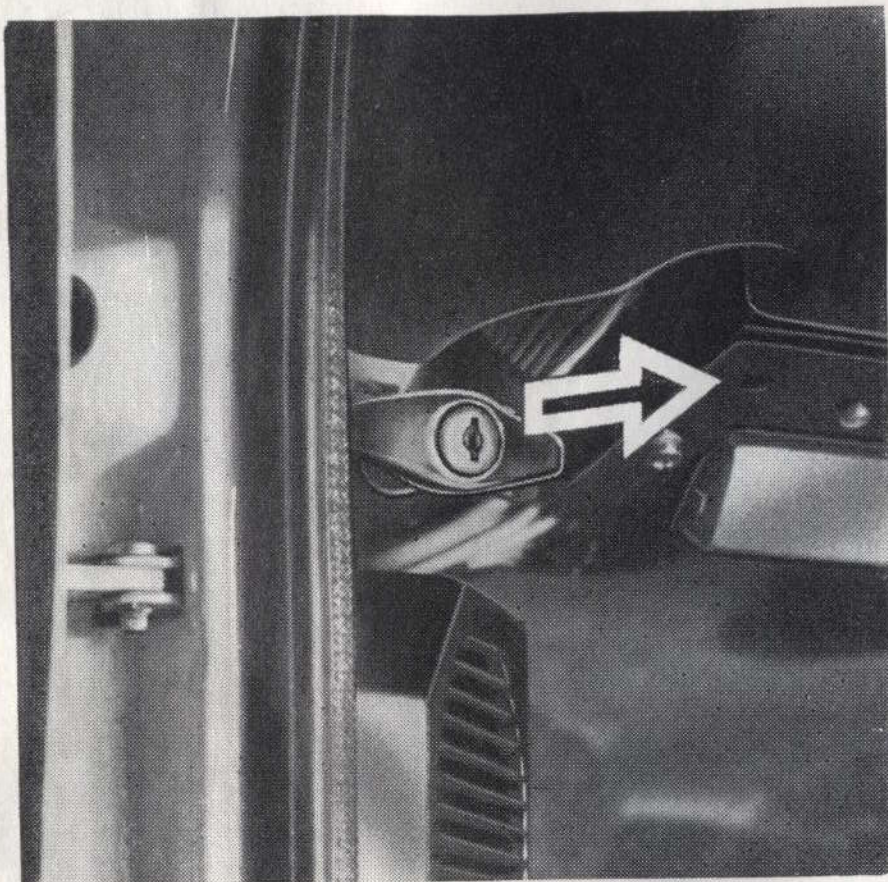
Do not store any objects in the sun visor pocket that could become hazardous in case of a sudden stop.

The vanity mirror on the sun visor of the passenger's side is provided with a protective cover. Always fasten it after use.



Non-glare Inside Rear View Mirror

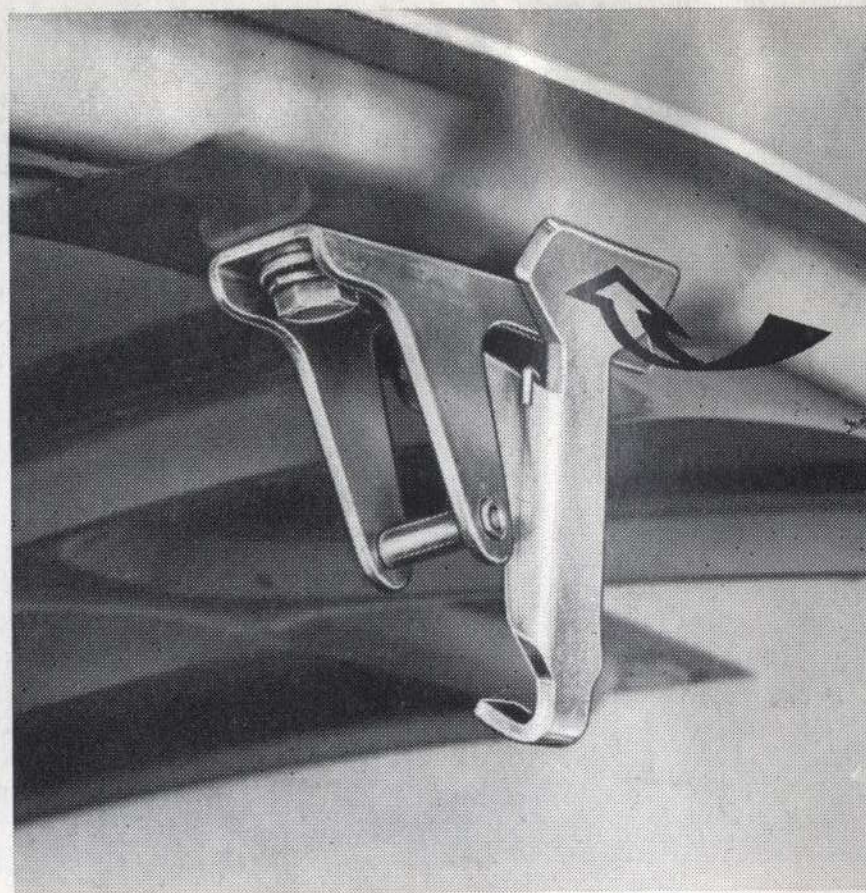
The mirror can be set for night driving to reduce glare from lights behind the car by adjusting the lever at the bottom of the mirror frame.



Front Hood Release Knob

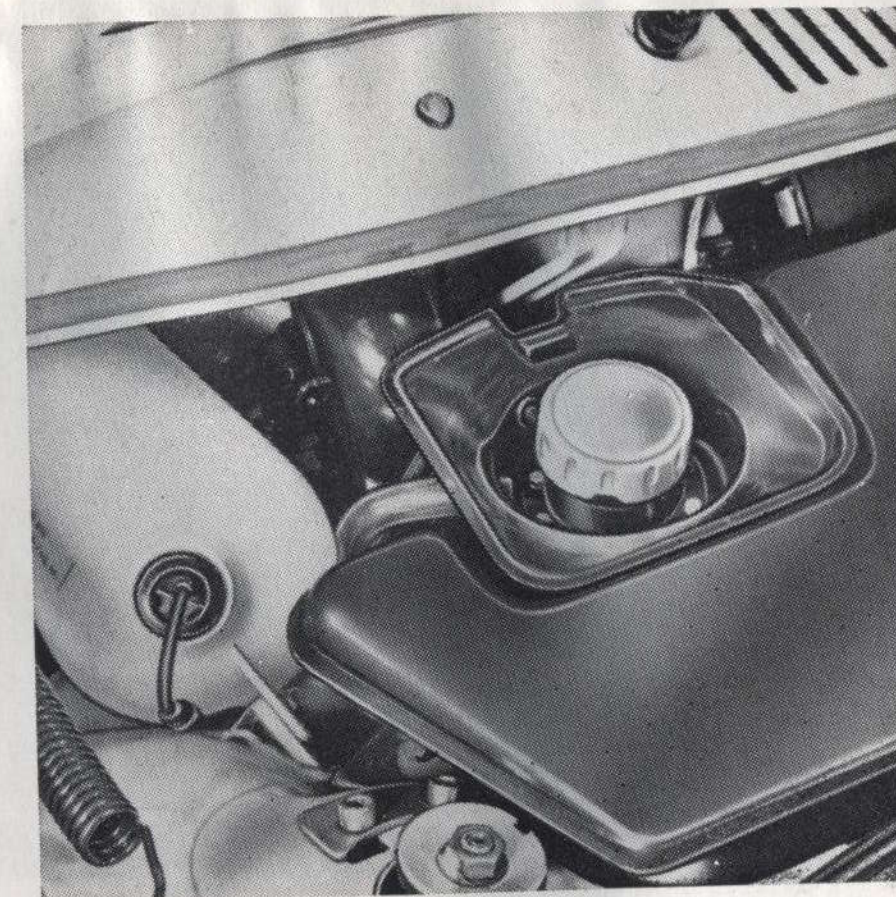
The lockable front hood release knob is on the left side under the instrument panel.

The front luggage compartment has a capacity of 7.1 cu.ft.



To open: First pull the release knob inside the car, then pull the safety catch under the hood. Spring tension keeps the hood in the open position.

To close: Push the hood down until first the safety catch and then the lock snaps shut.

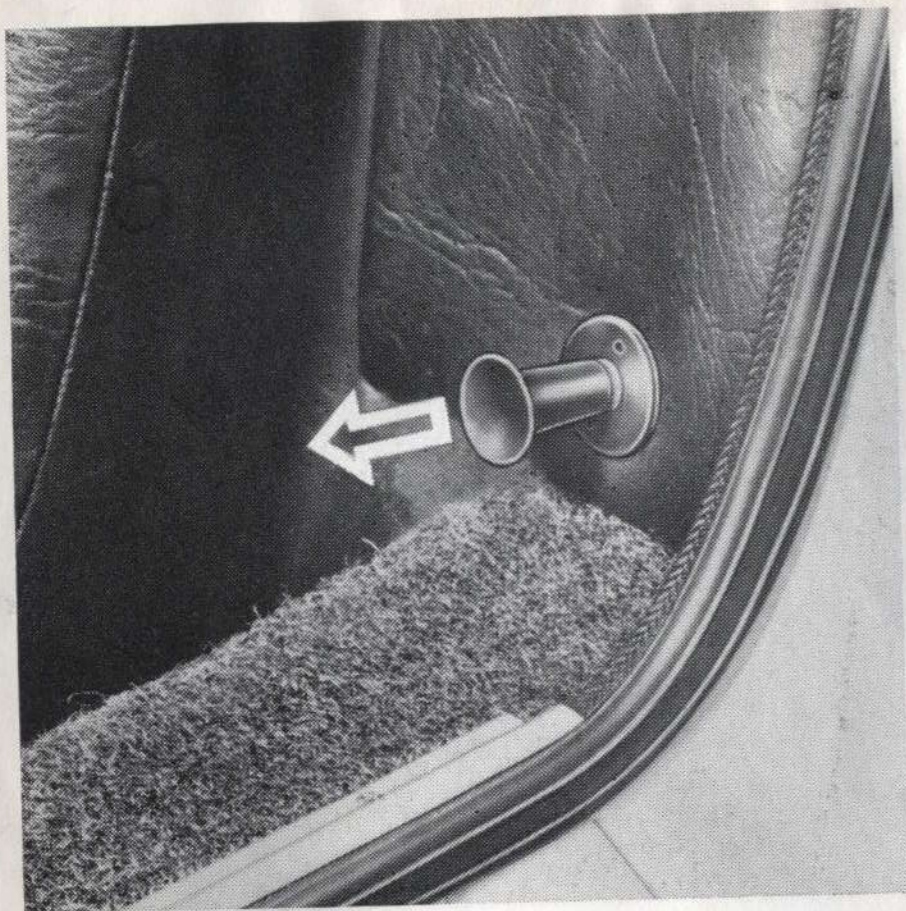


Fuel Tank Filler

The fuel filler neck is under the front luggage compartment hood.

The recommended fuel octane rating for the 914 models is given on a sticker near the filler neck.

When travelling outside the United States or Canada, gasolines may have a lower octane rating. Therefore, be sure that the gasoline you are using does not have an octane rating lower than specified for your model.

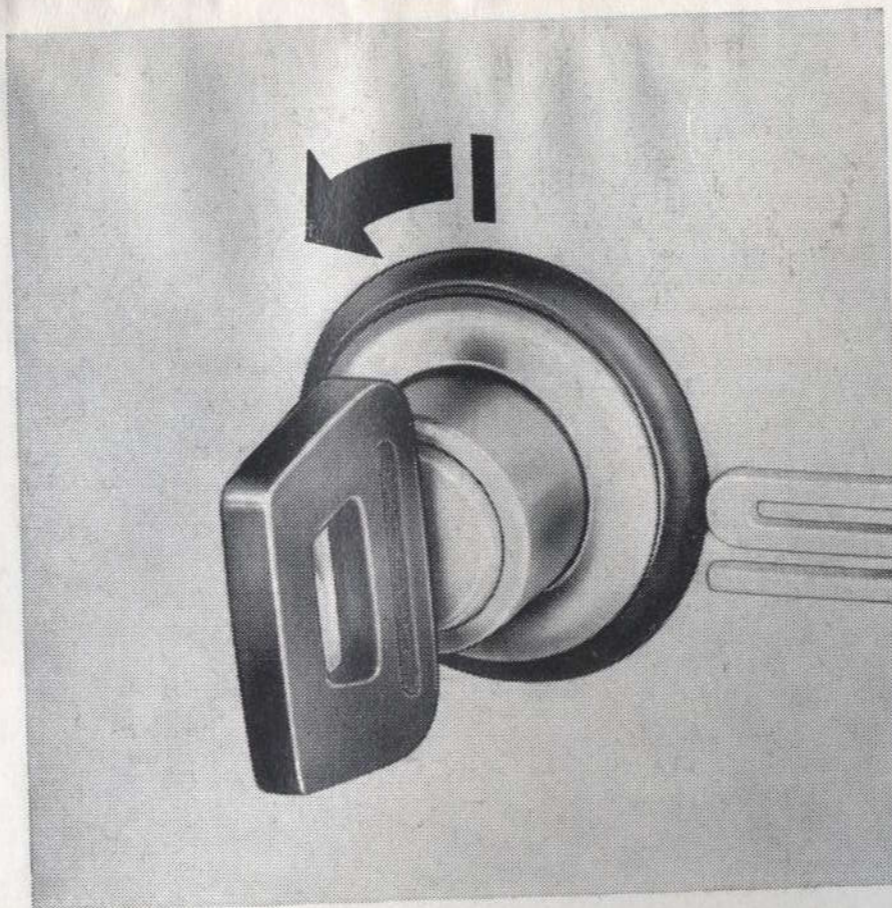


Engine Compartment Lid Release

The engine is installed between the rear axle and the passenger seats. It is accessible through a special lid between the rear window and the rear luggage compartment. A grille built into the lid allows entry of air for combustion and cooling.

The release knob for the engine compartment lid is located in the left rear door post. The lid is opened by pulling the release knob which releases the bolt, allowing the lid to be opened. Spring tension keeps the lid in the open position.

To close, push the lid down until the lock snaps shut.



Rear Hood Lock

A push-button is located in the rear luggage compartment lid to activate the lid lock.

To lock and unlock the luggage compartment — Turn key with the black plastic handle one quarter to the left (locked) or to the right (unlocked).

To open — Depress the button. This releases the lock and opens the lid. Spring tension keeps the hood open.

To close — Push the lid down until the lock snaps shut.

The rear luggage compartment has a capacity of approx. 8.8 cu. ft.

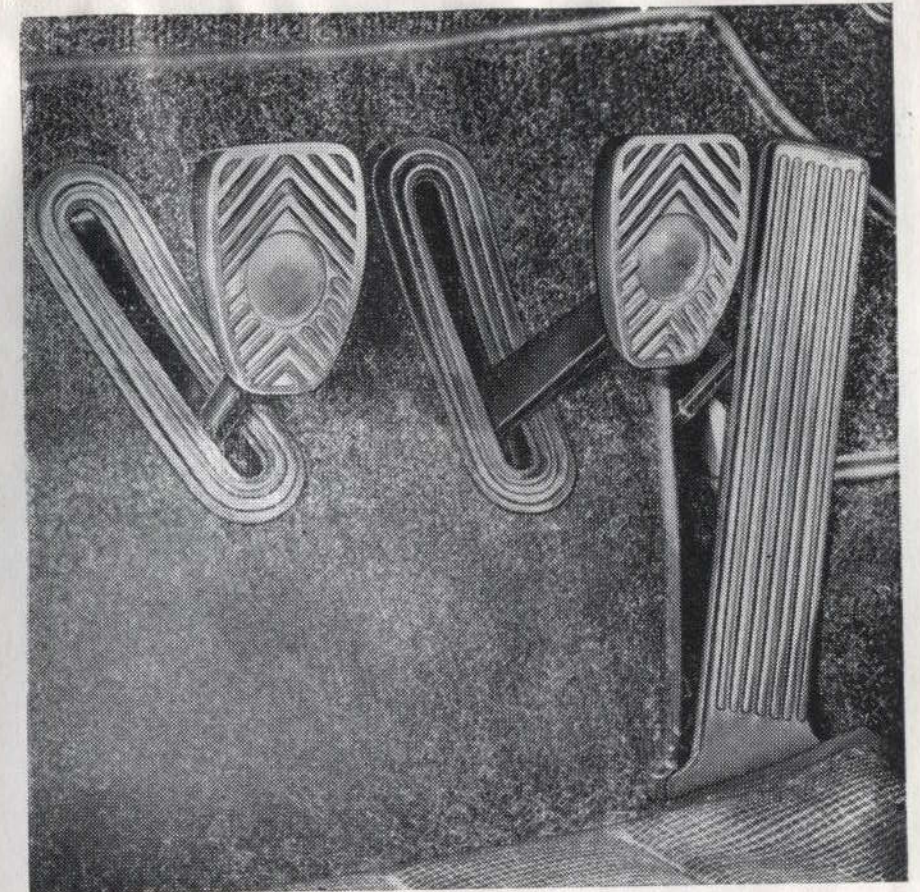
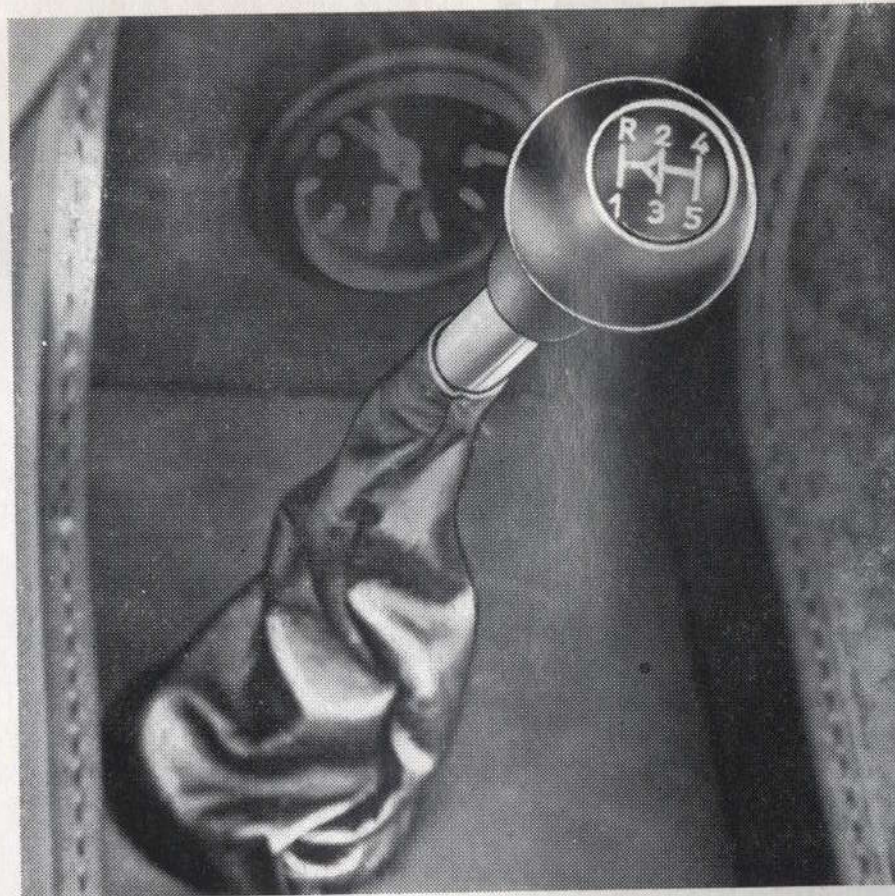
Driving Hints

There are no special break-in rules for your 914.

Under normal driving conditions the maximum output engine speed of 5000 rpm should not be exceeded.

For fast acceleration when passing the engine speed may be brought up to the red line for short periods only.

A special distributor rotor with an integral governor limits the engine speed to 5800 rpm.



Controls

Shifting gears

The fully synchronized transmission permits easy shifting into any gear. Make sure that the clutch pedal is fully depressed and the selected gear fully engaged. The following maximum engine speeds must not be exceeded when down-shifting (applies to standard gear ratios only):

5th to 4th gear = 3900 rpm

4th to 3rd gear = 3600 rpm

3rd to 2nd gear = 3400 rpm

2nd to 1st gear = 3000 rpm

Shift pattern

1st gear – Left, back over the spring guide

2nd gear – Straight forward off the spring guide

3rd gear – Straight back

4th gear – Right forward

5th gear – Right back

Reverse – Left forward over the spring guide (wait a few seconds after depressing the clutch pedal).

The back-up lights are turned on automatically whenever reverse gear is engaged.

Clutch Pedal

The recommended clutch pedal adjustment is $1\frac{1}{2}'' - 3\frac{3}{4}''$ (15 to 20 mm). To check, pull pedal away from the floorboard.

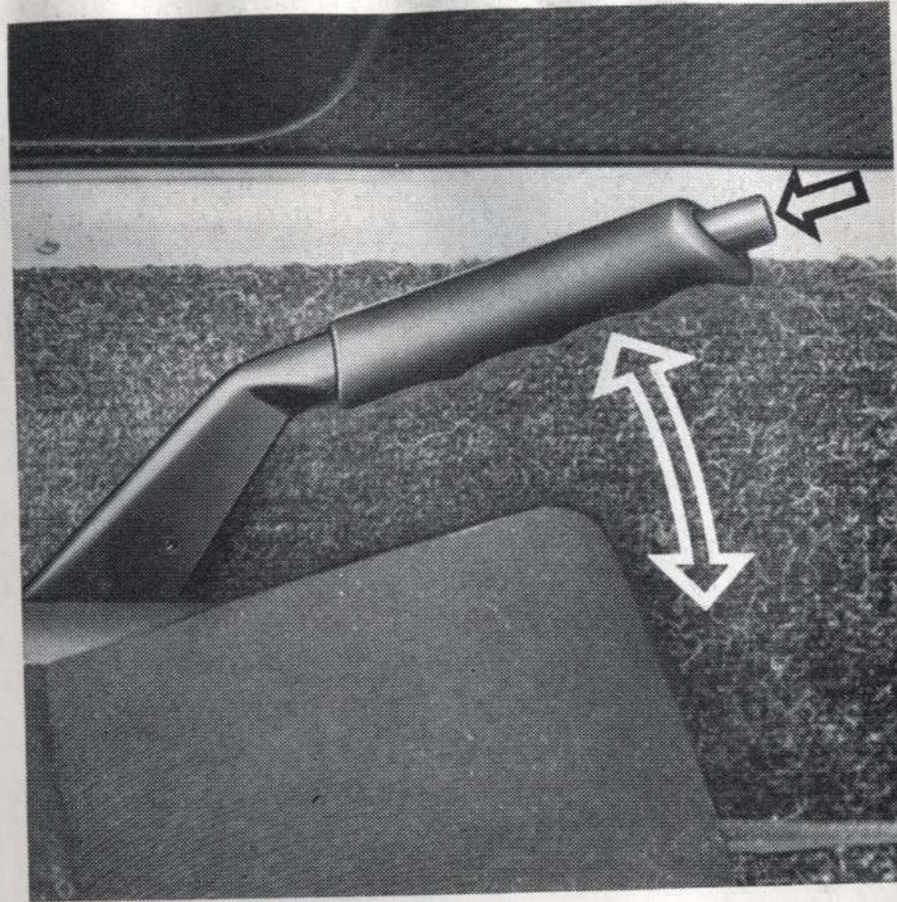
For adjusting procedures see page 53.

Brake Pedal

Since the brakes are self-adjusting, the brake pedal play will always remain constant provided that the hydraulic brake system is free of air bubbles. Pedal travel to the point of brake actuation may be 30–50% of total pedal travel. Whenever the brake pedal can be pushed in farther, the brakes should be checked and bled if necessary.

Disc Brakes

When the brakes are applied, each brake pad is hydraulically pressed against its brake disc by a brake piston. The brake pads are self-adjusting. The brake discs are protected against road spray and dirt by splash shields, but it still is possible that the brake pads and discs become wet when driving on wet highways. When driving on wet expressways or highways that call for only infrequent use of the brakes, higher brake pedal pressures will be required for braking. Consequently, it will be of advantage to gently apply the brakes periodically so that the discs and pads remain dry. Do not forget to run the brakes dry after the car has been washed.



Breaking-in Brake Pads

Every vehicle equipped with new disc brakes requires a certain run-in period. Therefore allow for longer braking distance during the first 100–150 miles. After that the brakes have reached their full efficiency.

Parking Brake

The parking brake is set and automatically locked in position by pulling the lever.

To release the brake, raise the lever until resistance is felt. Push the button and pull the lever up a little further. Keep the button depressed and lower the lever.

To prevent premature wear of the rear brake friction pads a warning light has been installed in the fuel gauge dial.

Windshield Washer System

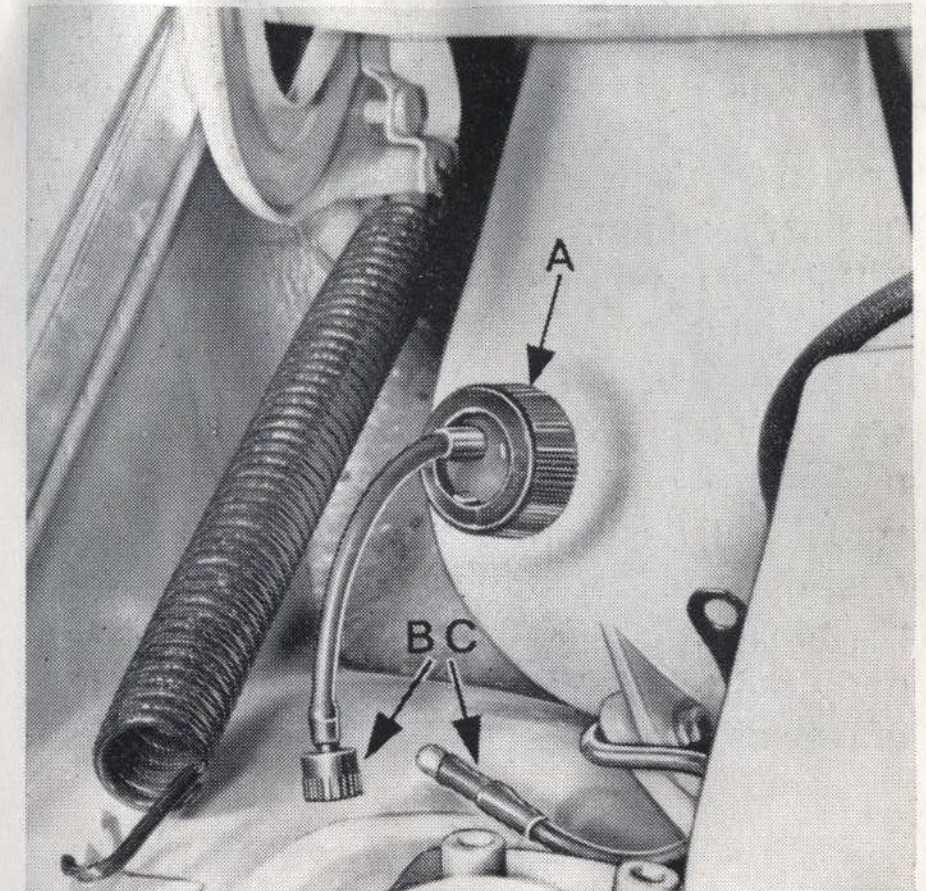
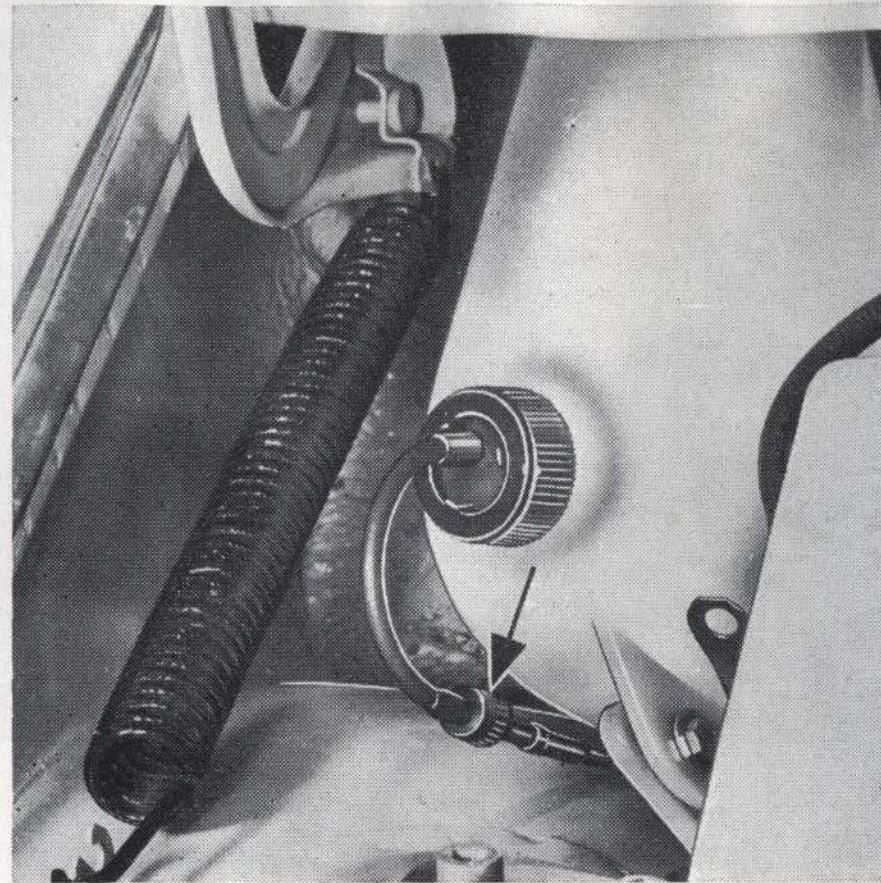
The pneumatic windshield washer is actuated by pulling the windshield wiper/washer lever toward the steering wheel.

Avoid prolonged use of the wipers on a dry windshield, since this can cause scratches on the windshield. The wiper blades should be checked regularly and changed at least once a year.

The pneumatic windshield washer uses the air pressure in the spare tire which is inflated to 43 psi. The air pressure is transferred to the container through a hose. The water supply in the container can be refilled once or twice without having to reinflate the spare tire.

It is advisable to add a cleaning solution to the water because water by itself is usually not adequate for cleaning the windshield quickly and properly. In the winter use an antifreeze cleaning solution, available at your authorized dealer.

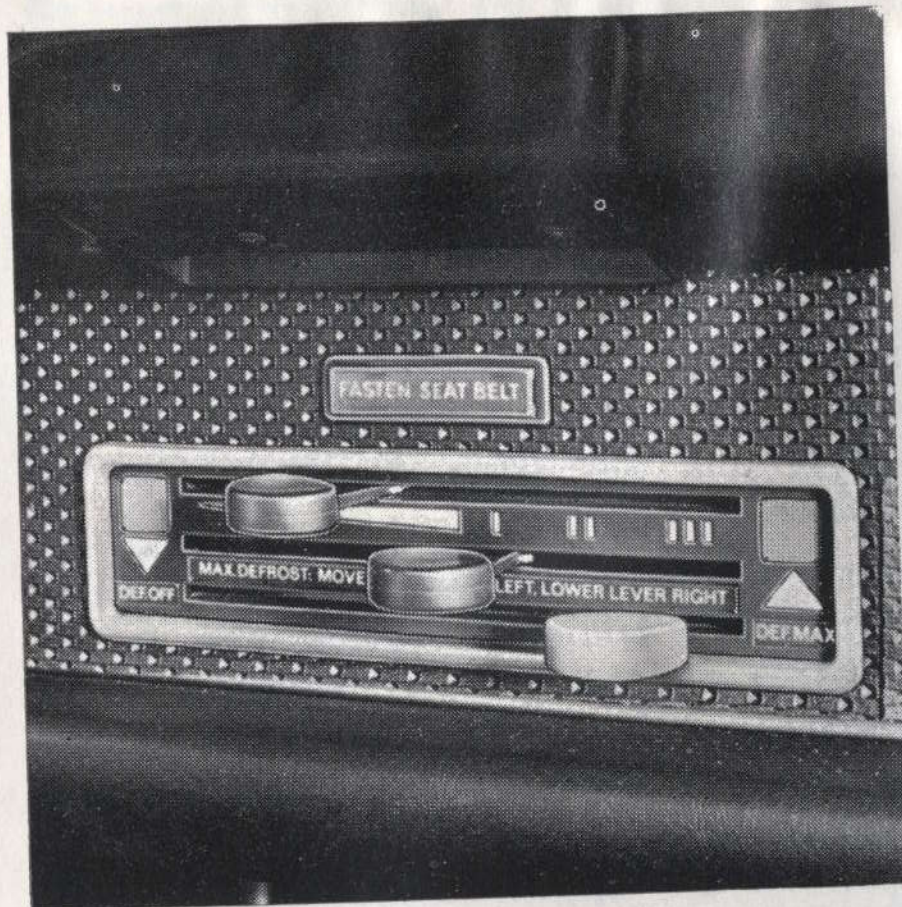
A valve in the cap of the container (A) automatically shuts off the air supply when the pressure in the spare tire drops to 29 psi. As a result, the spare tire is always inflated to at least the maximum pressure usually required on the road.



The air supply is also switched off automatically when the cap is removed to add fluid. The capacity of the windshield washer container is approx. 5.3 US pints. (4.4 Imp. pints). If the system does not work or the spray of water is too weak, the pressure in the spare tire may have dropped close to 29 psi.

In this case the spare tire must be reinflated to 43 psi. To do this, disconnect the hose at the container (B) and inflate spare tire through valve (C).

If the spare tire must be used, the residual pressure in the container will continue to operate the windshield washer for some time.



The **upper lever** regulates the fresh air vents and ventilating blower.

- Lever to left** – air vents are closed
- Lever to center** – air vents are opened
- Lever to right** – the blower goes on, blue control lamp lights up.

The blower can be set to positions I, II and III, depending on the desired volume of ventilation.

The **center lever** regulates the distribution of fresh air.

- Lever to left** – fresh air is directed downward
- Lever to center** – fresh air is directed upward and downward
- Lever to right** – fresh air is directed upward and sideways.

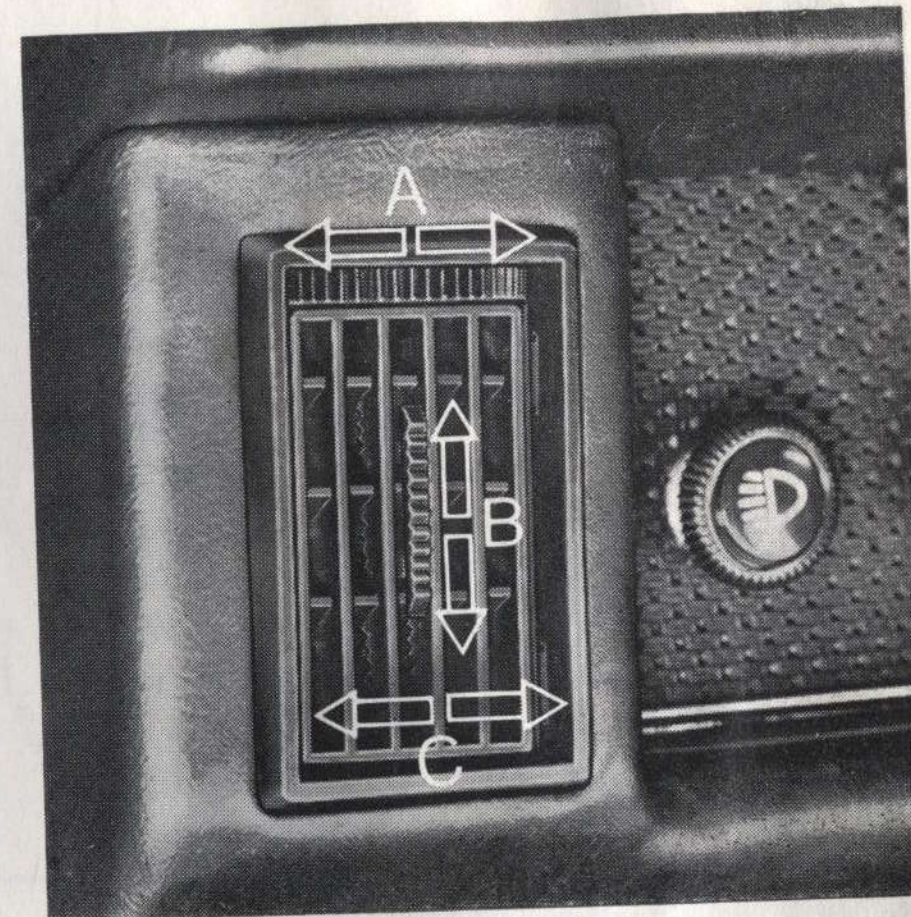
The **lower lever** regulates the warm air flow similarly to the fresh air flow when the engine heater is turned on (heater control lever next to the gearshift lever to the rear).

Ventilating System

A three-speed ventilating blower and distributing ducts are located in the luggage compartment below the instrument section.

The control panel is in the middle of the instrument panel. The ventilation system can be variably adjusted by three levers.

Defogging and defrosting is most effective if the upper levers are moved to the left, and lower lever is moved fully to the right. At the same time, the heater control lever (red) on the floor next to the gearshift lever should be raised all the way up.



To help defrost the side windows, louvers are installed in the sides of the instrument panel.

Warm and fresh air can be distributed as desired by adjusting levers A and B.

Lever A

- to left** – air vents are closed
- to right** – air vents are opened

Lever B

- upward** – air is directed upward
- downward** – air is directed downward

Air flows to right or left, when the louvers (C) are turned in desired direction.

Air that has circulated in the interior of the car is drawn out through two openings below the rear window. The air then passes to the outside via outlets in the door posts.

Heater

The heater draws its heat supply from the car's engine.

The complete fresh air supply for various functions of the vehicle is drawn in through the grille on the engine compartment cover ① by the cooling blower of the engine. The air stream needed for the car's heater is diverted immediately behind blower ② through a special collector pipe ③. If the heater control lever ⑫ is pulled up fully, an additional electric blower ⑬ is switched on (for low engine speeds, city driving) to draw in additional air and increase heater action. This air supply is also conducted through the collector pipe ③.

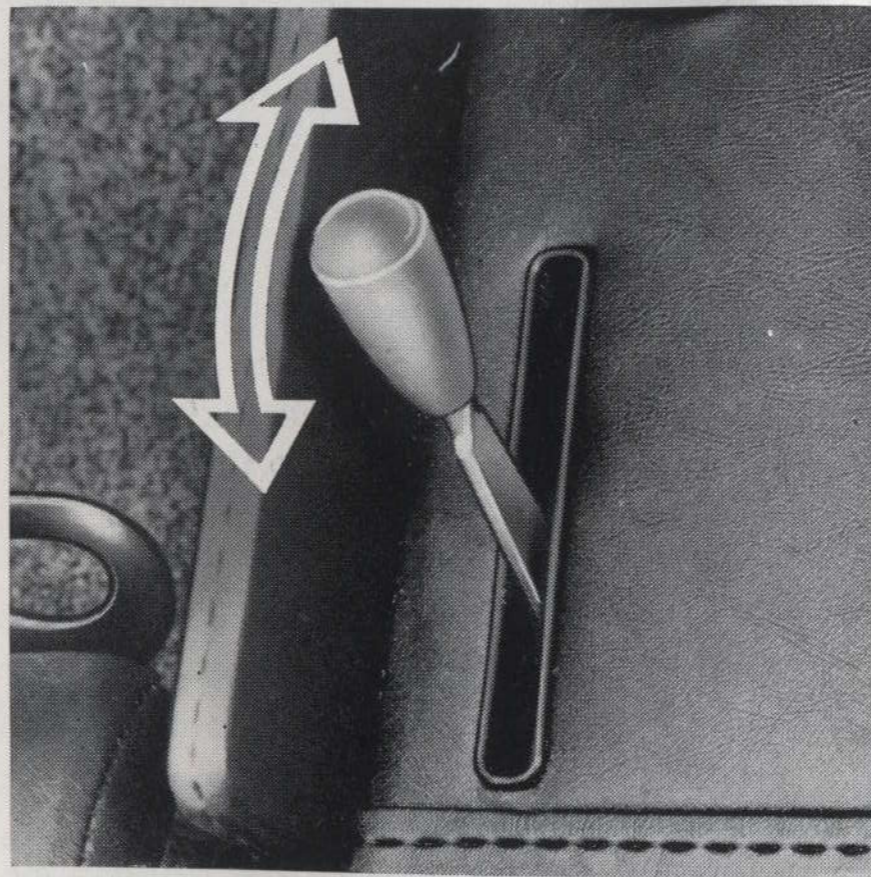
From the collector pipe the cool air flows through the engine heat exchanger ④. Heat exchangers are enclosed sheet metal boxes through which the exhaust pipes ⑤ from the engine also pass. All exhaust-system connections which could conceivably become loose ⑥ are located outside the heat exchanger. The complete engine exhaust system is mounted in the air stream under the car.

From the heat exchanger the air for the heater flows through connecting hoses, chambers ⑦ with control flaps, pipes ⑧ and sound absorbing dampers ⑨ in the body side members to the distribution points, which are grouped in pairs.

Warm air outlets are provided:

at the base of the windshield ⑩, on the left and right in the instrument panel ⑭ and in the front footwells.

The chambers ⑦ with control flaps in the warm air supply circuit are designed so that air in the heat exchangers passes over the hot exhaust pipes even when the heater is shut off. Additional fresh air can be supplied to the car's interior through ventilation slots in front of the windshield, regardless of the setting of the car's heater.



The heater control lever ⑫ is located behind the gear lever.

Lever forward – heater is closed

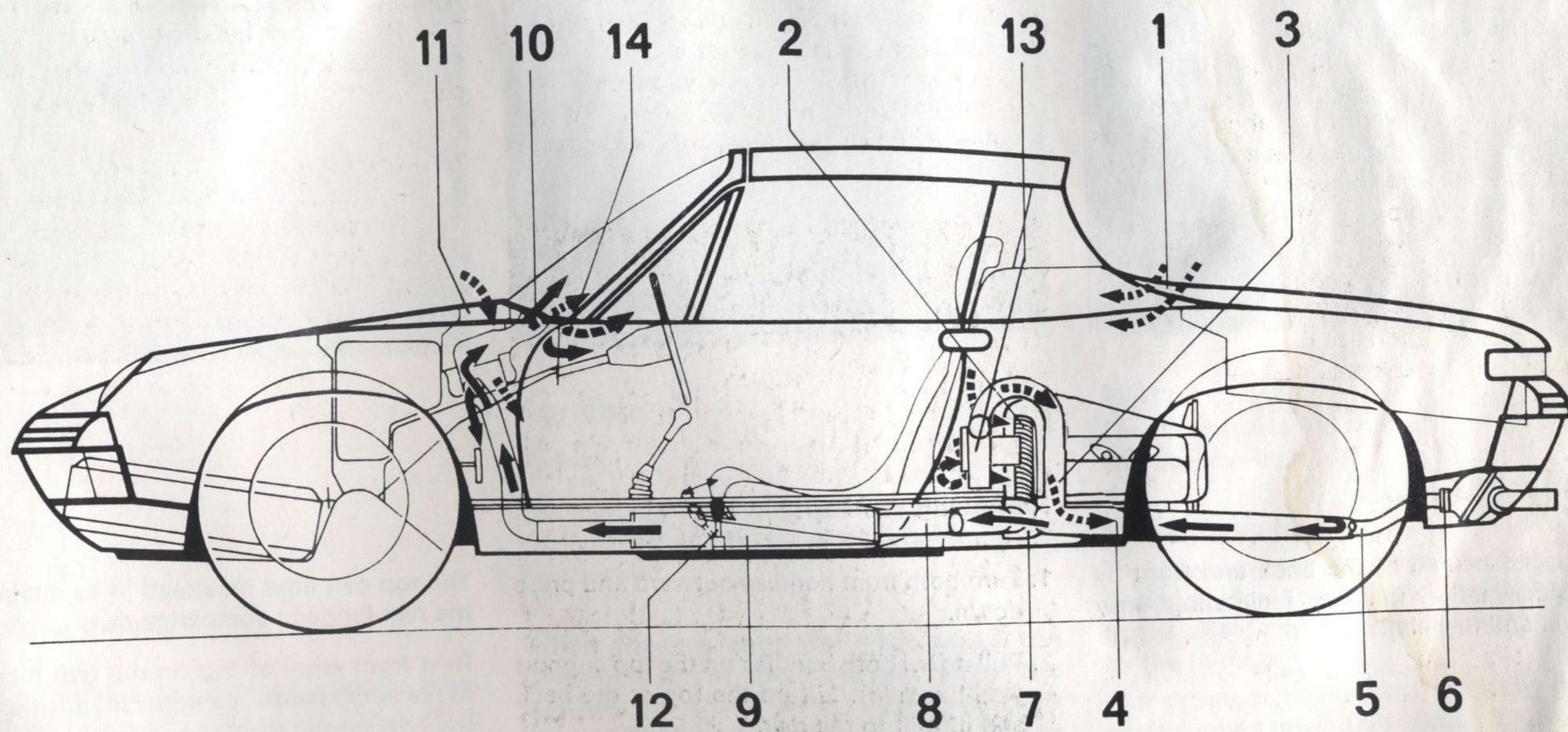
Lever to rear – heater is opened

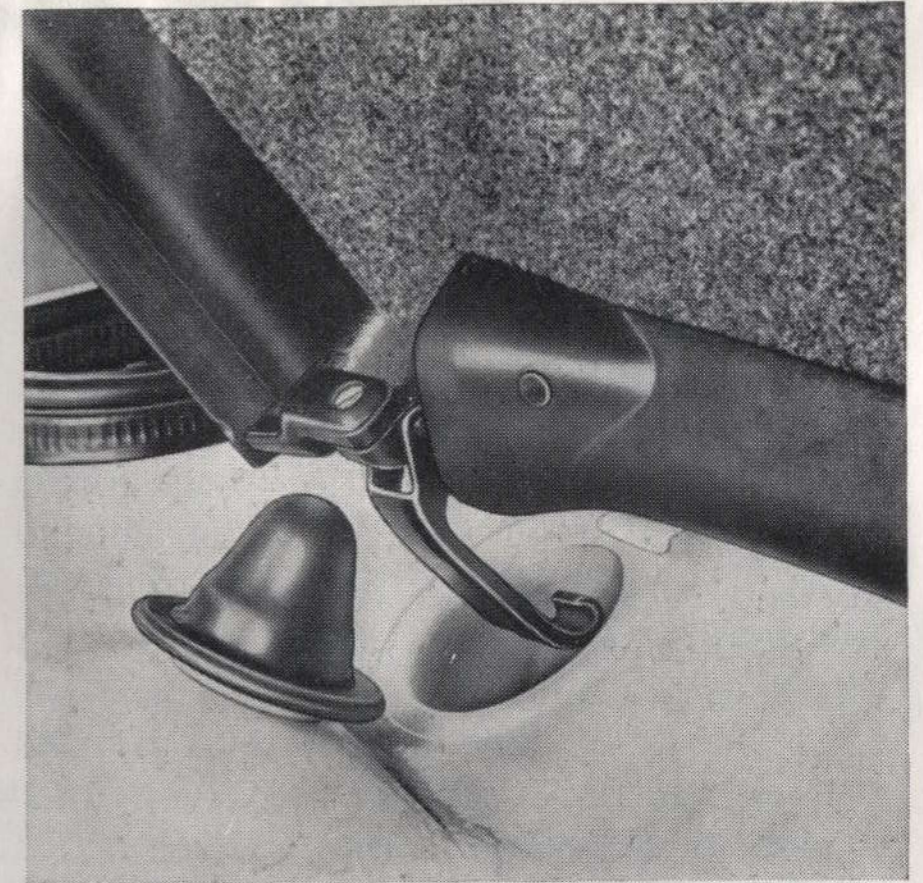
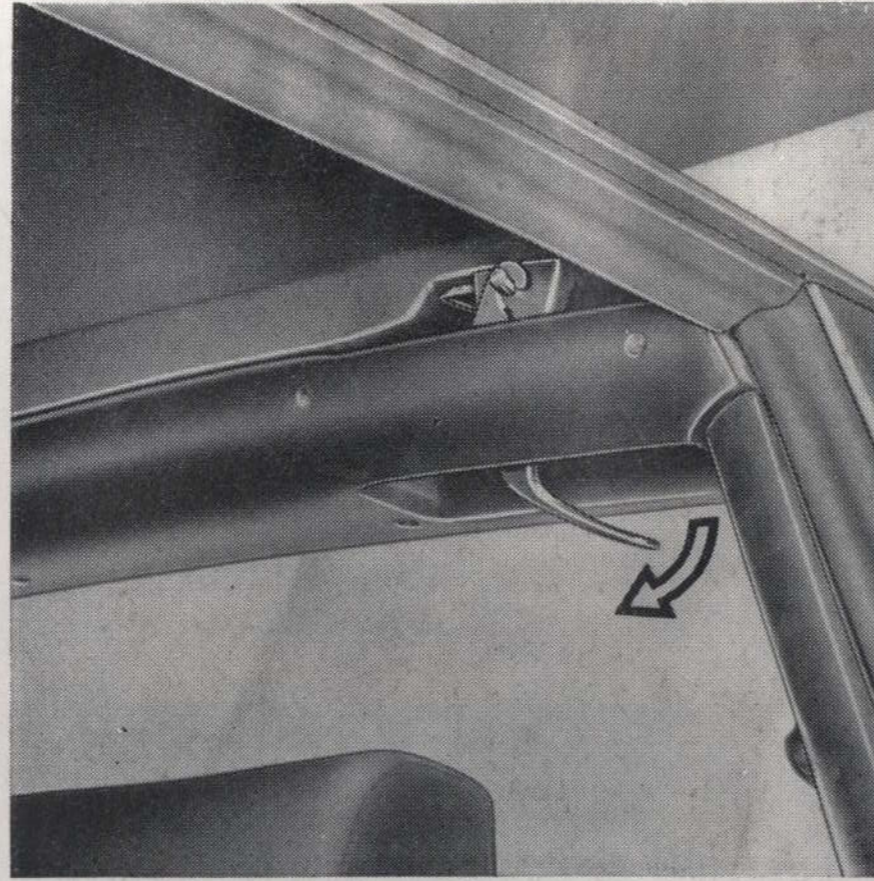
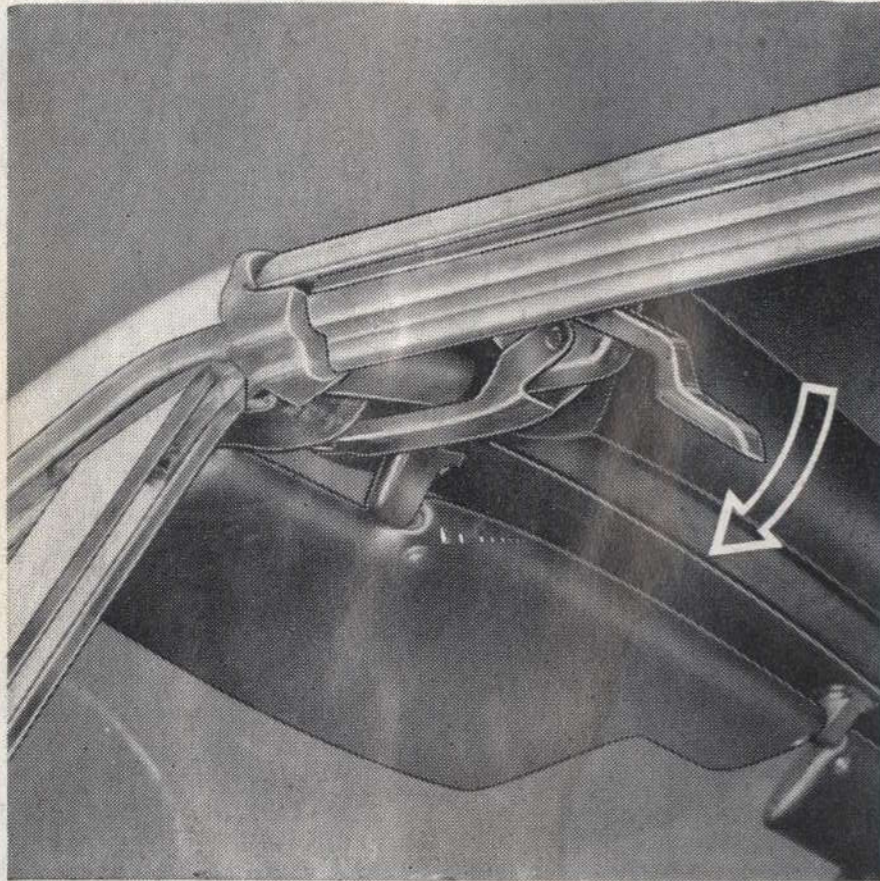
When fully to the rear, an additional electric blower ⑬ is switched on to increase the effectiveness of the heater.

The heater control lever is illuminated when headlights or parking lights are turned on. When the lever is pulled back, a cable moves the flaps in the heater chamber ⑦. If the cable breaks, both flaps are automatically closed and the warm air escapes to the outside.

Warm air can be distributed as desired within the car by operating the **lower lever in the control panel on the dashboard**. If the lever is fully to the **left**, the entire warm airstream is directed **downward**. With the lever in the **center**, warm air is divided between the **upper and lower outlets**. Fully to the **right** warm air is directed **upward** only.

Schematic View of Heating and ventilating System





Removable Top

The top is secured at the back and front by two quick-action clamps, facilitating easy removal and installation.

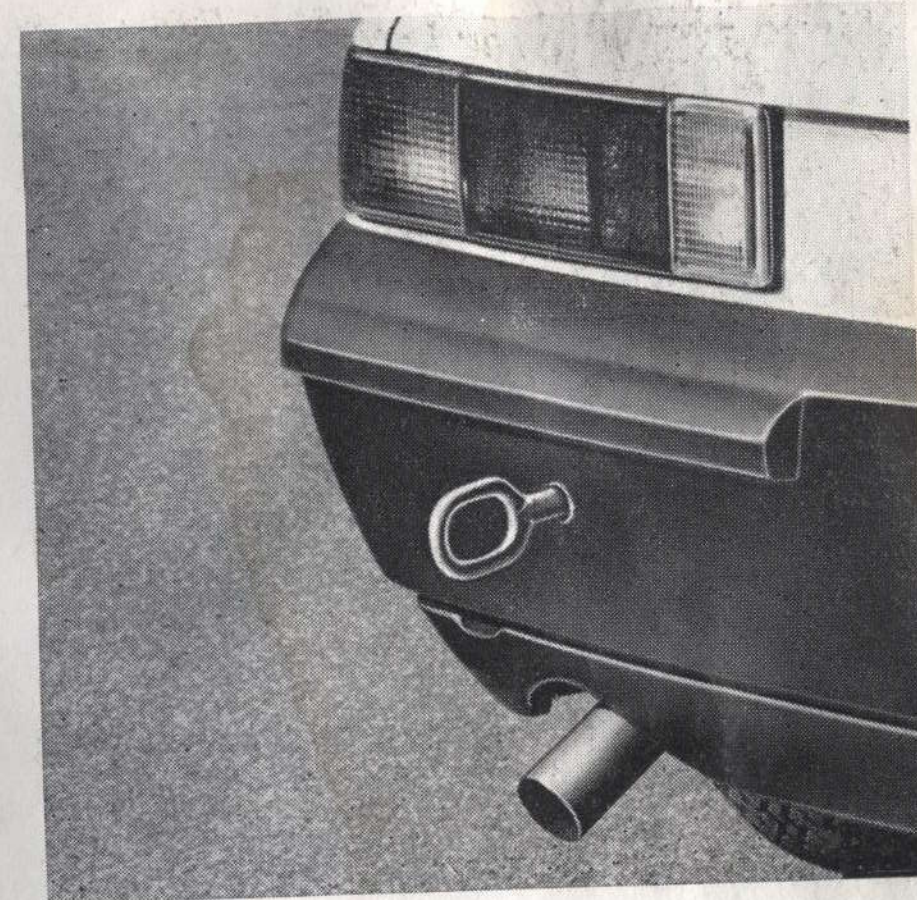
Removing the top:

1. Turn both front handles outward and press down.
2. Pull down both handles on the top support (roll bar side). Lift up the top at the back and lift out to the rear.
3. Return both handles of the front clamps to the side.

The top can now be stored in its retainers in the rear luggage compartment.

Rest front edge of top on the two retainers. Make sure clamps are correctly positioned in the two plastic recesses and the handles are still on the side.

Press top forward until front edge is completely seated in retainers. Press rear of top down lightly and secure it with two rubber fasteners.



Installing the top:

1. Place the top from above, slightly tilted forward, onto the windshield frame, push it forward and press down lightly.
2. Close both clamps and turn the handles to the side.
3. Secure the rear of the top with the locking handles.

Towing

Front

The car has a towing eye on the undercarriage at the front, to which a tow rope can be attached.

When towing your Porsche, place the gearshift lever in Neutral. Turn the ignition on to be able to operate indicator lights and stop lights. Be sure to release the parking brake.

Always observe local laws and municipal ordinances governing towing.

Rear

The towing eye (in tool kit) can be screwed into the rear bumper.

Please keep in mind:

The towing eyes on your Porsche are not designed for towing by commercial tow trucks. Also, never have your Porsche towed by the bumper.

The driver of the towing car must be very careful when driving off and shifting to avoid sudden and abrupt jerks.

The driver of the towed car must always keep the tow rope taut.

Hints for Winter Operation

Battery

During the winter months, the battery is subjected to greater use than in the summer months. More current is consumed when starting at very low temperatures. Lights and rear window defogger are used more often. Besides, the battery tends to decrease in capacity as the temperature drops.

Therefore, it is very important to keep your battery in the best possible condition. Have the battery checked regularly and, if necessary, charged between regular inspections. For details see page 58.

Corrosion Prevention

The road salts used to keep the roads and highways free of ice and snow promote corrosion. For this reason, we recommend that any damage to the factory-applied undercoating be repaired before the winter. Protective sprays containing oil should not be used as they attack both the rubber components and the protective undercoating.

In addition, the body should be coated with wax for protection, and the chrome ornamentation on the car, including hub caps and bumpers, with a chrome preservative.

Emergency Equipment

It is good planning to carry emergency equipment in your car. Some of the things you should have are: window scraper, snow brush, container or bag of sand or salt, flares, small shovel, first-aid kit, etc.

Engine Oil

Make sure that thinner oils having the proper specifications for winter use are put in the engine before the cold winter weather starts. Details of the various oils to be used are given on page 78.

Locks

Locks can freeze in the winter if water gets into the lock cylinders. When washing your car in the winter, do not aim the water jet directly at the locks. It is a good idea to tape the keyholes to prevent the water from seeping into the lock cylinder. Water in the locks must be removed with compressed air afterwards. Squirt lock de-icer, antifreeze, or glycerine into the lock cylinders to prevent freezing.

To open a frozen lock, warm up the key before inserting it. Do not use hot water as it will later freeze in the lock.

Rubber Mouldings

Rubber mouldings around the doors, the front hood and the luggage compartment lid should be lightly coated with glycerine to protect them against freezing.

Spark Plugs

Make sure the spark plugs are not worn or have a gap larger than the specified spark plug gap. For further details on spark plugs, see pages 45 and 76.

Windshield Washer

Add anti-freeze to the washer fluid, available at your authorized dealer, to prevent it from freezing. Follow the instructions on the can for the right amount to be used.

Winter Tires

We recommend to consult an authorized dealer when buying winter tires. See also page 55.

PORSCHE

914 1.7/2.0

CARE

AND LUBRICATION

Care of Coachwork

The Porsche paint finish is of a high quality baked synthetic enamel. The color and enamel type designation is indicated on a plate attached to the left front doorpost. In correspondence pertaining to the paint finish, make sure to include the car's identification numbers.

In daily use the car is exposed to many mechanical and chemical factors as well as hot sun rays, rain, snow, and frost. The ultra-violet rays, the rapid temperature changes with rain, snow, industrial dust and chemical deposits attack the paint finish which can withstand this only through regular and proper care.

Car Washing

During the initial few weeks, the new car should be washed with clear water only. This is best accomplished by applying a fine water spray to the entire surface to first soften the dirt and remove the worst of it. Clean the surface by using a soft sponge and plenty of water, rinse well, and then wipe dry with a chamois. Do not wash or wax the car as long as the surface is hot from exposure to the sun or engine heat.

Since water will usually wet the brakes when the car is washed, resulting in poor braking action or one-sided pulling, it is important to test the brakes after the car has been washed.

Dust should never be wiped off the car with a dry rag since dust particles are abrasive and will rapidly dull the finish and cause scratches that may be difficult to repair.

Care of the Finish

Oils contained in the paint are the most important ingredients contributing to the elasticity of the finish. Because these oils are gradually lost, due to weather and similar causes, they must be replenished through regular and proper care of the finish. Proper cleaning and application of preservatives will result in high luster and provide a long lasting protective coating. Given proper care, the original finish will retain its brilliance for many years. The use of polishes is recommended only after it becomes evident that the normal preservatives no longer accomplish the job.

Keep silicone polishes off the windshield to avoid wiper smear in rain.

Application

Car wash and liquid wax
Paint touch-up
Targa top cleaning,
upholstery and carpet cleaning,
whitewall tire cleaning

Porsche Products

Car Wash and Wax – ZDW 234 201
Touch-Up Paint (available in all colors)
All Purpose Cleaner – ZDW 243 101

Whenever using commercial cleaning agents follow the directions on the containers. Be aware of warning or caution labels.

Polishing

It is advisable that repolishing of your car be entrusted to skilled hands of professionals acquainted with this work since a good degree of care and know-how is required. The finish must be polished with clean cotton until high luster is obtained. This should be done in small sections to ensure that the polish does not dry beforehand. A subsequent application of a wax preservative will give the finish a brilliant, long lasting gloss. Metallic paints are especially difficult to maintain and should always be given professional care.

Spots and Stains

Road tar, grease, oil, and insects cannot always be removed with soap and water alone and require special treatment. Spots of any sort should be removed without delay before they set and cause permanent damage.

Road Tar

Road tar should be removed immediately with tar remover since it may cause permanent stains if allowed to stay on for any length of time. Whenever tar removing solvents have been used on the finish, a wax preservative should be applied afterwards.

Insects and Tree Sap

During the warm season, insects will accumulate on the forward surfaces of the body. Since these deposits are somewhat difficult to remove with sponge and water alone, a mild soap solution may be applied. Tree sap accumulating when parking under trees, can also be removed with a mild soap solution. Rinse the car thoroughly after cleaning and follow up with a wax preservative.

Cloth Upholstery

Even though the upholstery fabrics in your Porsche are of top quality, they must be handled with proper care to prevent scuffing or bleaching in the process of cleaning. If a vacuum cleaner is not at hand, the upholstery may be cleaned with a soft brush. More persistent stains may be removed with lukewarm water or, if necessary, soap water solution. Grease and oil spots can be removed with commercial spot removers by using an undyed soft cloth and rubbing the upholstery until dry.

Do not use gasoline, kerosine, naphtha, nail polish remover or other volatile cleaning fluids. They may be toxic, flammable or hazardous in other ways. Only use spot removing fluids in well ventilated areas. Keep them out of reach of children.

Leather and Leatherette

The best way to clean leather and leatherette is by using a lukewarm soap and water solution and a soft brush. Use water sparingly avoiding soaking or drenching. Use a soft sponge to wipe each section completely dry after it has been cleaned. Clean the seams carefully, making certain that these areas have been cleaned evenly and dried well. When cleaning leather, it is advisable to follow up with a good leather preservative.

Chrome Care

Chromed parts should first be washed with sponge and water, then dried with a soft cloth. Road tar must be removed with tar remover rather than knives or similar objects. By following up with a chrome preservative, a high and long lasting luster will be maintained. During the winter season as well as in coastal areas it will be of advantage to cover the chromed parts with a somewhat heavier coating of the preservative as protection against salty air and extended exposure to corrosive road dirt. If necessary, coat the parts with non-corrosive petroleum jelly or other protective compound.

Rubber Weatherstripping

Rubber weatherstripping is used around the doors and windows. Given a certain amount of care, these rubber components will remain pliable; it is normal for rubber to lose elasticity through aging which causes it to become hard and brittle. However, this process can be effectively countered and slowed through the application of talcum powder or glycerine.

Do not apply glycerine to the car's body. Glycerine may damage the paint finish.

Windows

Your Porsche is equipped with two types of glass: the windshield is of laminated safety glass and all other windows of tempered safety glass. The laminated glass consists of two layers of glass bonded together with a transparent layer of pliable plastic. When laminated glass is damaged, only the immediate impact area shatters leaving the rest of the surface intact to provide continued visibility through the windshield.

The best way to clean the glass is by using a lukewarm water solution containing a small amount of alcohol or baking soda, and clean absorbent paper (also newspaper). If a chamois is used for polishing the glass, it should be used exclusively for that purpose, and it should be thoroughly cleaned prior to use. Contact with the painted surfaces must be definitely avoided, especially with polishes and preservatives.

It should be remembered not to engage the windshield wipers until the windshield has been moistened by rain or the windshield washer.

Protective Undercoating

The oil industry has developed undercoating and dust proofing materials of bitumen or wax base. These materials do not soften the undercoating sprayed on at the factory. Instead, they solidify and, upon drying, form a tough, pliable protective coat. We recommend that the undercarriage be treated with such a preservative before the winter as well as in the spring.

After cleaning the underside or after repairs to engine or transmission, the undercoating must be renewed.

Safety Belts

Keep belts clean. Wash belts with mild detergent without removing them from vehicle. Dry belts in the shade until they are completely dry.

Do not bleach or dye the belts or use any other material to clean the belts because some of these agents can weaken the webbing.

Checking Engine Oil Level

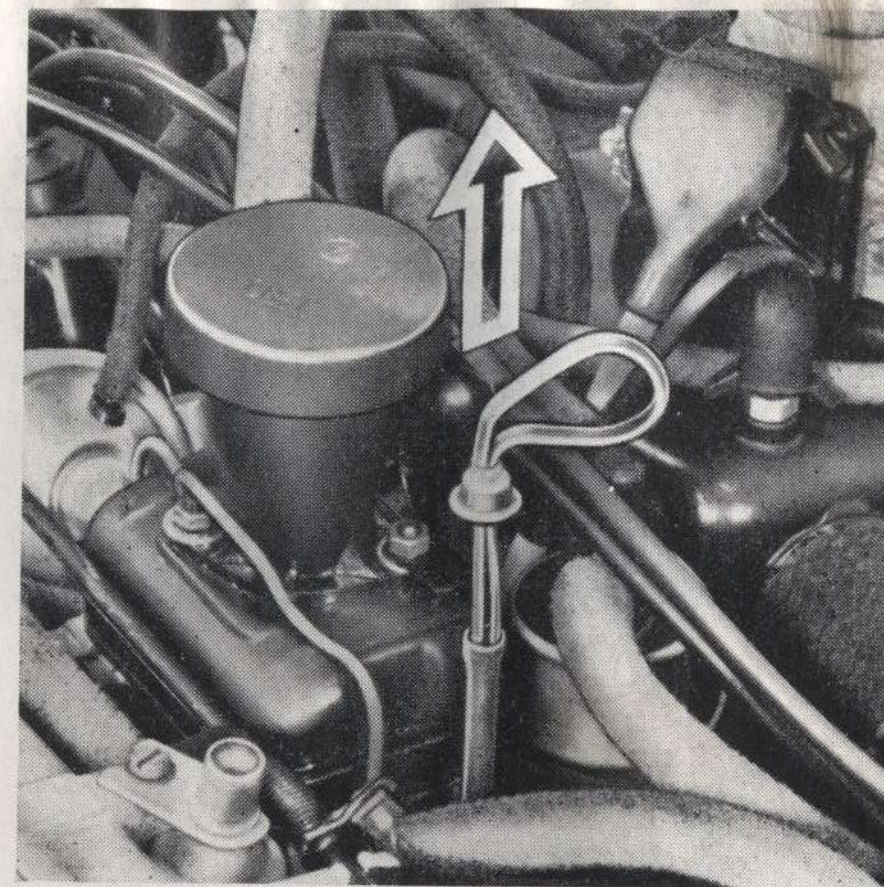
Pull out dipstick and wipe with a clean rag. Insert dipstick to stop, remove and read oil level.

The oil level should be between the two marks on the dipstick, and must never drop below the lower mark.

The difference between the min. and max. marks on the dipstick is approx 1 US qt (0,8 Imp. qt).

An exact reading is only possible if the car is level. Do not check the oil immediately after switching off the engine – the oil needs a few minutes to flow back into the crank-case.

When operating the vehicle under extreme conditions such as prolonged high-speed driving in summer, the oil level should be kept just under the upper mark.

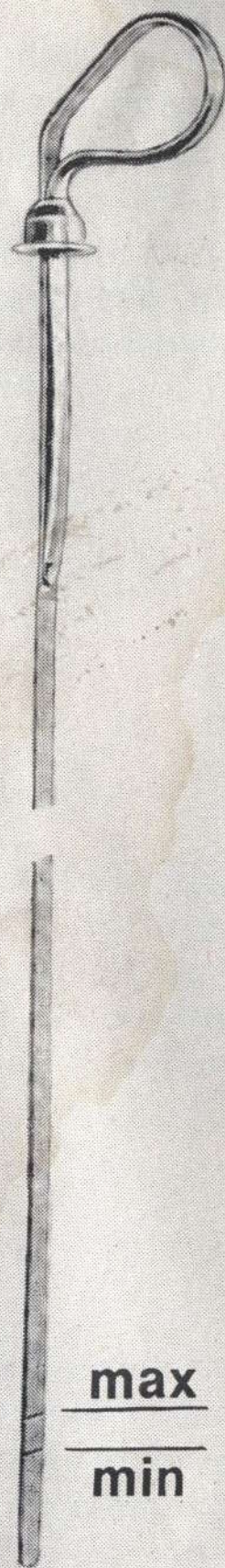


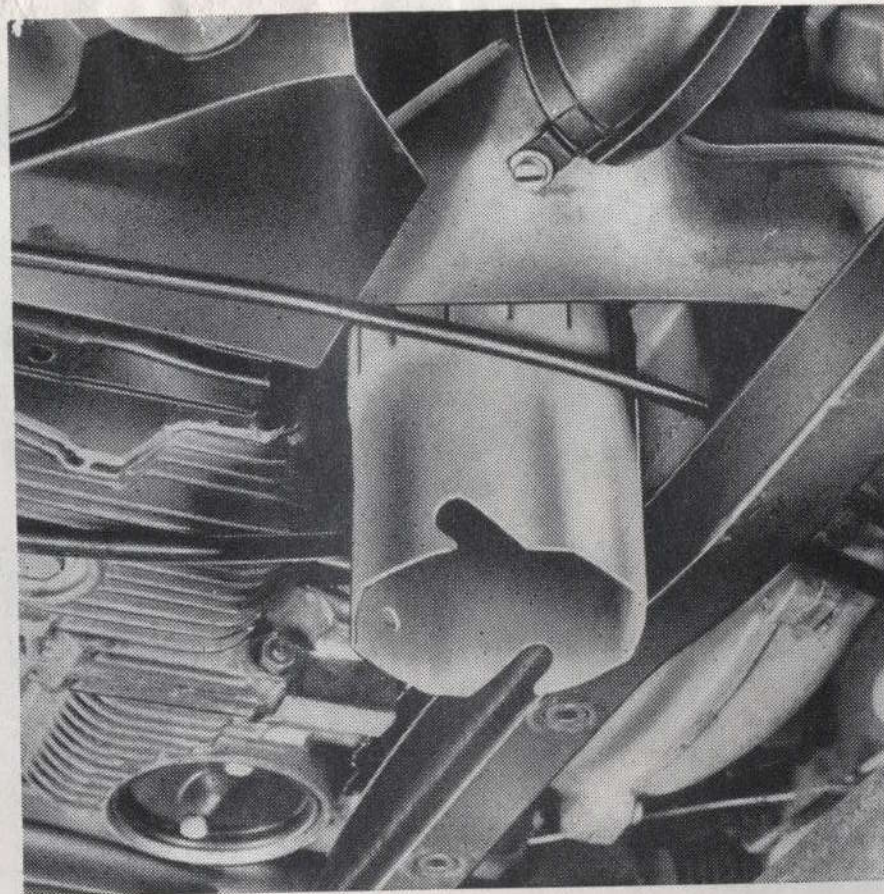
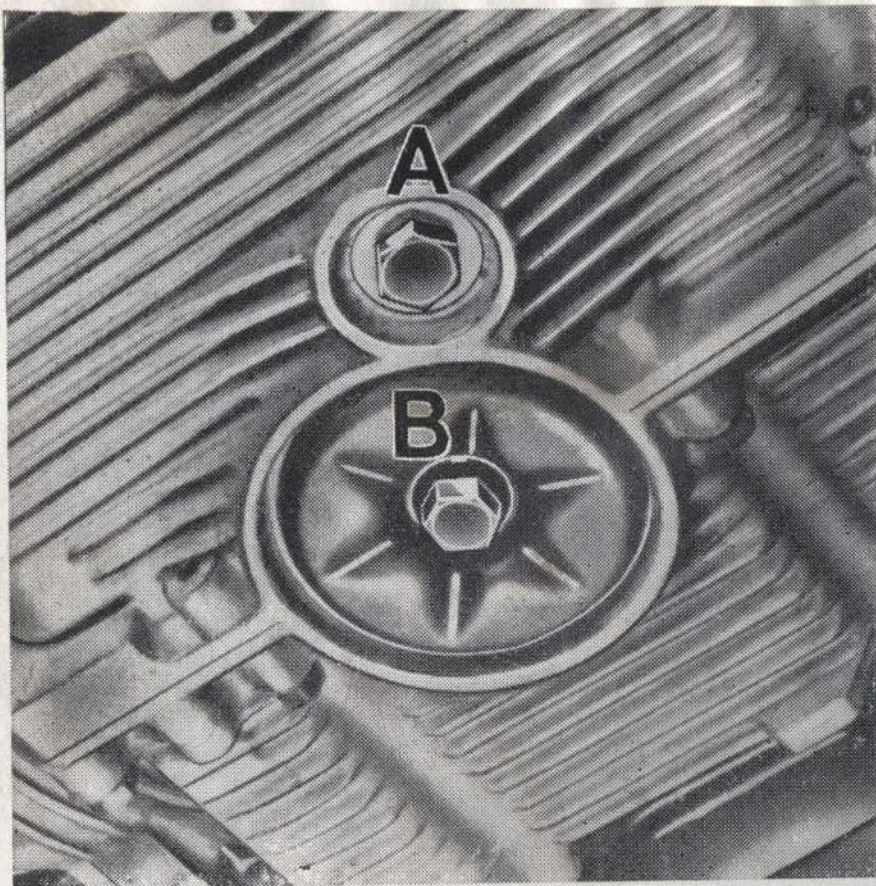
Adding Engine Oil

Remove oil filler cap.

Top up with brand name HD oil (see page 78). Check oil level on dipstick – upper mark should not be exceeded.

Replace the cap and tighten.





Changing Engine Oil

Before draining your engine oil, check for a way to dispose of the old oil. Do not dispose of old oil in sewage drains, on garden soil, or in open streams. Your zoning regulations or environmental rules will tell you how you can dispose of it. Should the discarding of the old oil present a problem to you, we suggest that you have your oil changed at your dealer or at a service station.

The quantities required for an oil change are:

- with oil filter cartridge change approx. 3.7 US qts. (3.0 Imp. qts.)
- without oil filter cartridge change approx. 3.2 US qts. (2.6 Imp. qts.)

Oil should be drained by removing plug (A) only when the engine is warm. The engine does not need to be flushed, but the oil strainer should be removed and cleaned every 20 000 miles. This is done by removing the center nut (B).

Gaskets and sealing rings should always be replaced.

A torque wrench is required to tighten the center nut of the oil strainer. The torque value is 7.2–9.4 ft. lbs. This value is very important. **Do not overtighten.**

A special wrench is necessary for removing and installing the oil filter properly.

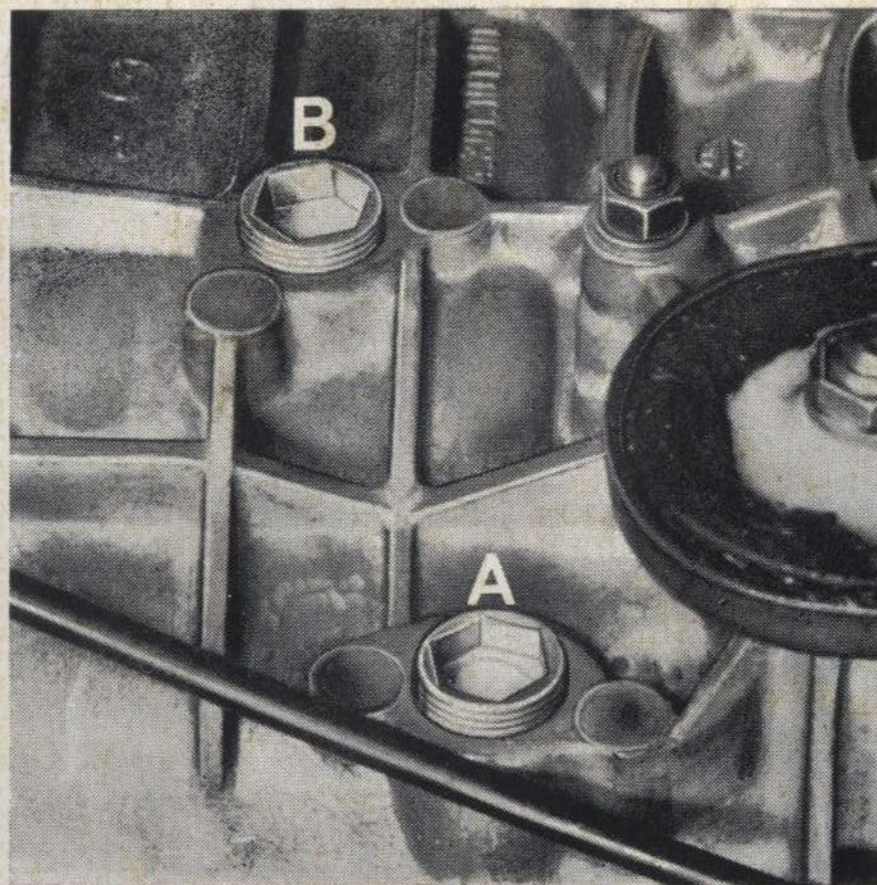
Under normal conditions it is unnecessary and uneconomical to change oil at intervals shorter than described in the Service-Schedule of the Maintenance Record.

We only recommend shorter oil change intervals in winter when most driving is done on short trips or in the city. Should only a few hundred miles per month be driven under these conditions, then the oil should be changed every 6 to 8 weeks. In countries with an arctic climate, with temperatures below -15°F , the oil should be changed every 1000 miles.

Transmission

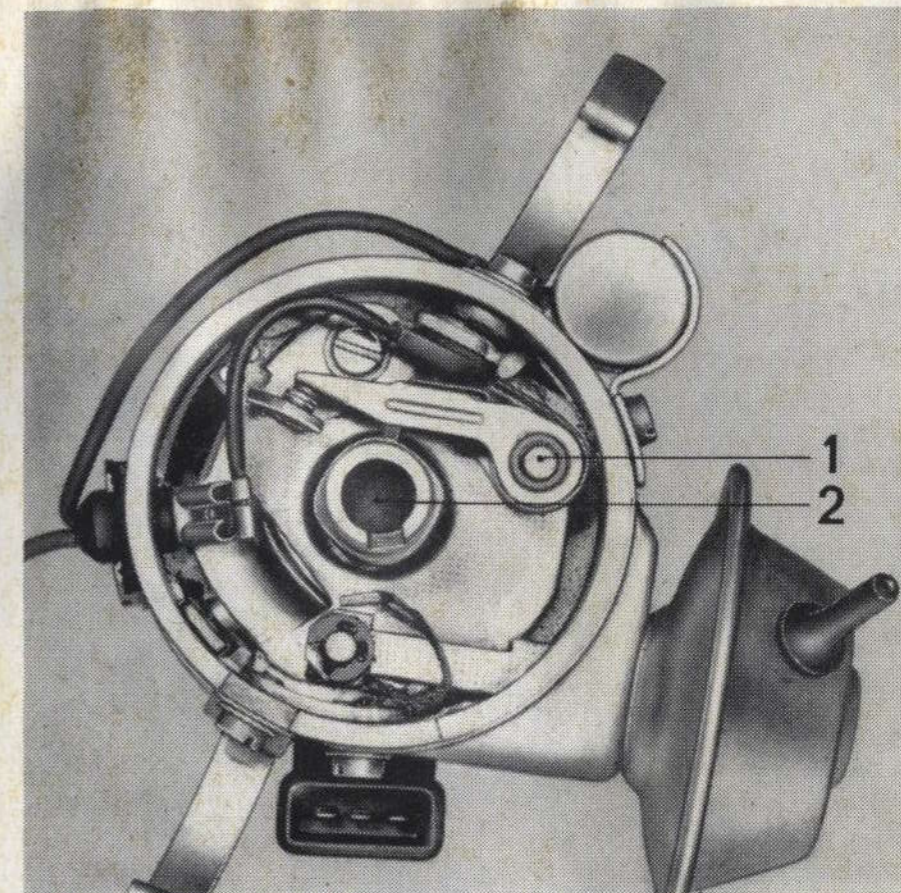
Both transmission and final drive are combined in one housing. The lubricant used is hypoid oil that is changed by your dealer at 600 miles and then every 10,000 miles as part of the maintenance service.

Should the need arise to top up the oil it should only be done with the necessary workshop equipment. Also, hypoid oil is generally not marketed in small quantities.



Changing Transmission Oil

1. Drain the old oil when warm.
2. Remove oil filler plug "B" and oil drain plug "A".
3. Allow oil to drain completely.
4. Clean drain plug "A", reinstall and tighten securely.
5. Fill transmission slowly with approx. 2.6 US qts. (2.1 Imp. qts.) of gear oil as specified in the chapter "Filling Capacities" (see page 78).
6. Check oil level, reinstall oil filler plug "B", and tighten securely. Oil level in the transmission should come up to the edge of the filler hole "B" when car is level.



Lubricating Distributor Cam

1. Remove distributor cap and take out rotor.
2. Grease slide piece of contact lever with some multi-purpose grease.
3. Lubricate bearings of contact breaker (1) and lube felt of distributor shaft (2) with a few drops of engine oil.

Note:

Do not get grease or dirt on the contact breaker points. Dirty contact points will cause misfiring and quick contact wear.

PORSCHE

914 1.7/2.0

MAINTENANCE

AND ADJUSTMENTS

Note

The recommended service intervals, as listed in the Porsche Maintenance Record, apply under normal driving conditions.

The condition of oil, and of wear and tear items depends greatly on the amount of driving and on driving habits. Therefore, oil and wear and tear items should be checked more frequently and possibly changed at shorter intervals.

A complete lubrication and maintenance service should be carried out at least once a year, preferably before the winter. The same applies to protective undercoating for the vehicle.

Exercise extreme caution when working on any part of the car to prevent accidental injury. Incomplete or improper servicing also cause problems in the operation of the car.

Be especially careful with valve, ignition and fuel injection adjustments as they affect the exhaust emission, which must meet Federal Government specifications. If in doubt about any servicing, have it done by a qualified mechanic or by your authorized dealer.

Before working on any part in the engine compartment, turn off the engine and let it cool down sufficiently. Remove the ignition key to prevent the engine to be started by someone else. If work has to be done with the engine running, exercise extreme caution to prevent neckties, jewelry or long hair from getting caught in the V-belt.

Checking Spark Plugs

Remove spark plugs with the engine off. The appearance of the electrodes and insulator is a good indicator of the condition of the engine.

Appearance of electrode and insulator

Medium brown:

Proper fuel mixture, spark plug in good condition.

Black:

Fuel mixture too rich, spark plug gap too wide, plug too cold.

Light grey:

Fuel mixture too lean, spark plug loose or leaking, valves not closing fully, plug too hot.

Oil soaked:

Oil drawn into combustion chamber due to worn cylinders or piston rings, plug misfiring.

Spark plugs are subject to wear and should be cleaned and replaced periodically.

Cleaning Spark Plugs

Remove spark plugs with the engine off. Spark plugs can be cleaned with a fine wire brush and blown clean with compressed air. The upper insulator should be wiped clean to prevent current leakage and misfiring.

Handle spark plugs with care to prevent damaging the electrodes.

(Spark plug specification see page 76.)

Replacing spark plugs

Pull connector off.

Remove plug with socket wrench and bar.

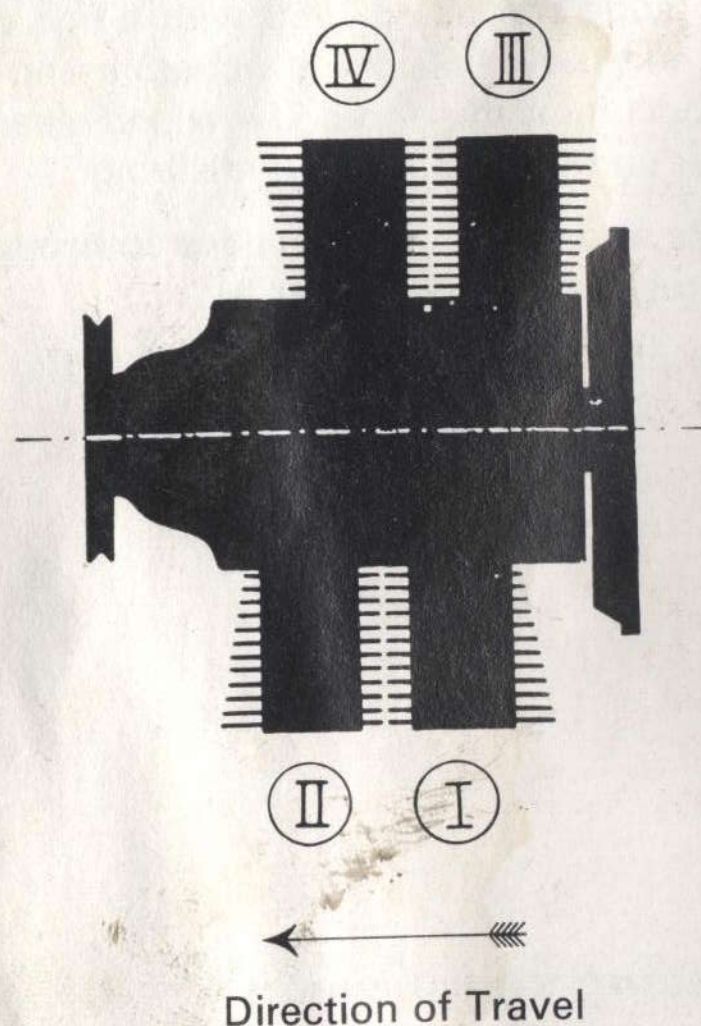
Note

Adjusting the valve clearance will be easier with the spark plugs removed.

Be sure not to cross-thread the plugs when inserting them, and tighten them firmly, but do not overtighten.

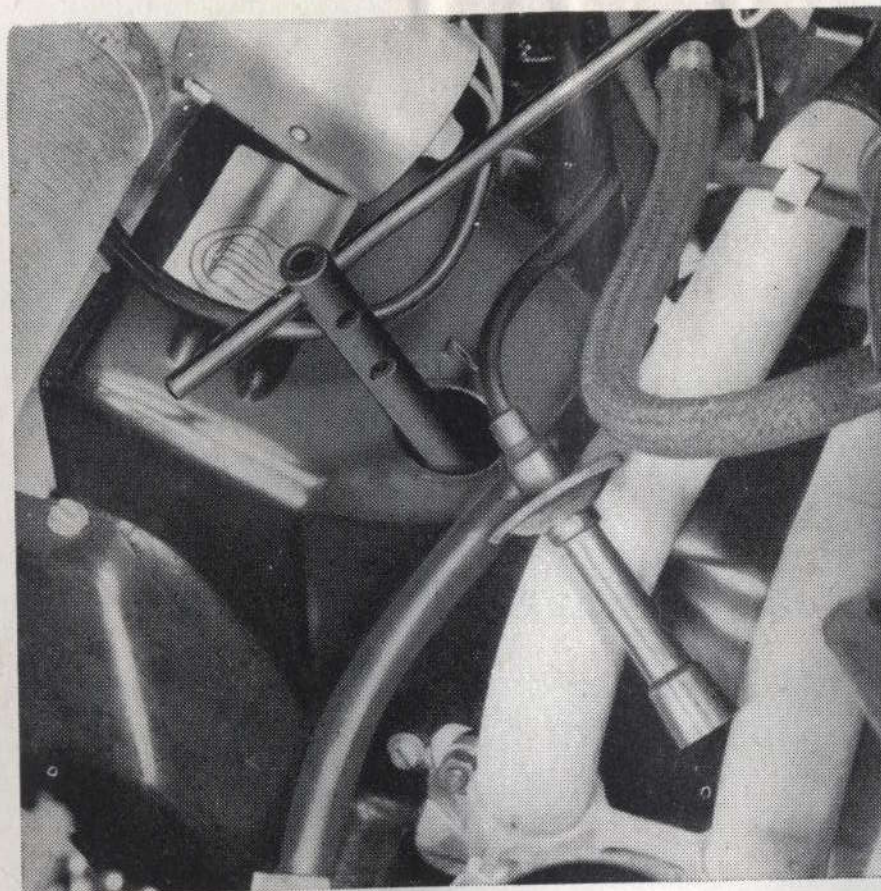
Spark plug gap: 0.028 in. (0,7 mm).

Cylinder Designation



Testing Cylinder Compression

Cylinder compression testing is done at cranking rpm. To perform the test, first remove all spark plugs and then proceed with testing. Each cylinder should be allowed about 12 piston strokes (compression strokes). Cylinder pressure should be even



on all cylinders. The difference between cylinders should not exceed 22 psi. Testing may be done with a common compression gauge.

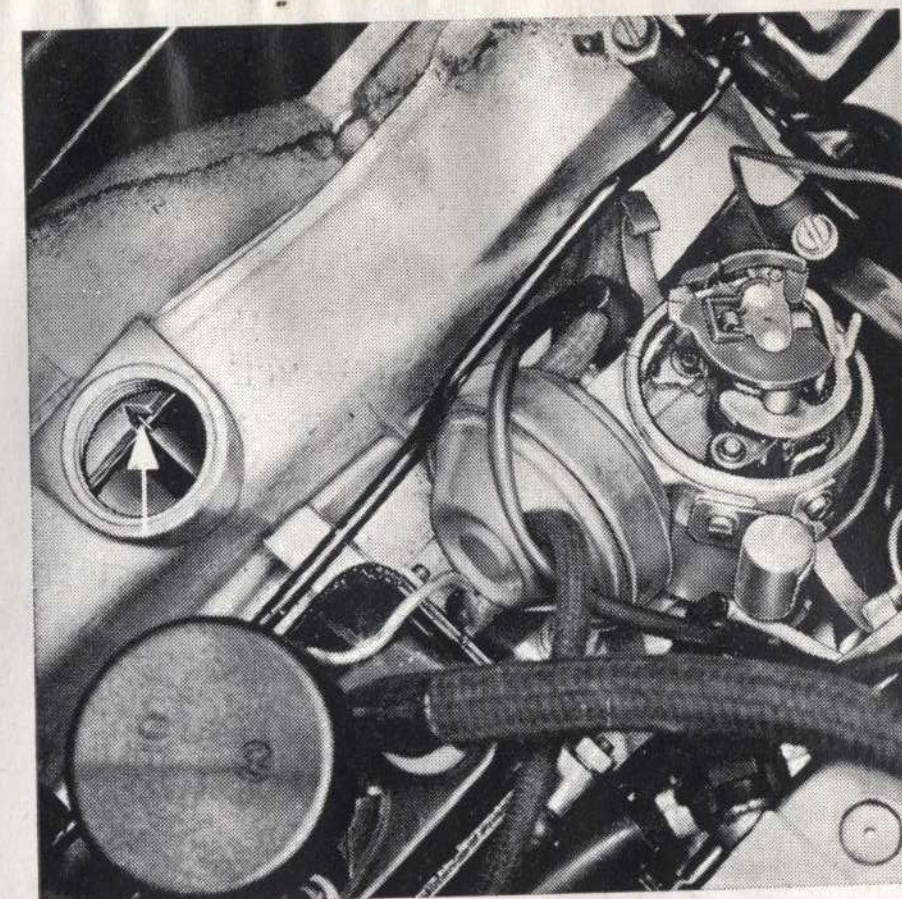
Perform compression test with fully open throttle and oil temperature not less than 140° F (60° C).

Adjusting Valve Clearance (cold)

Valve clearance in cold engine:

Intake - 0.006 in. (0,15 mm)	} 1.7
Exhaust - 0.006 in. (0,15 mm)	

Intake - 0.006 in. (0,15 mm)	} 2.0
Exhaust - 0.008 in. (0,20 mm)	



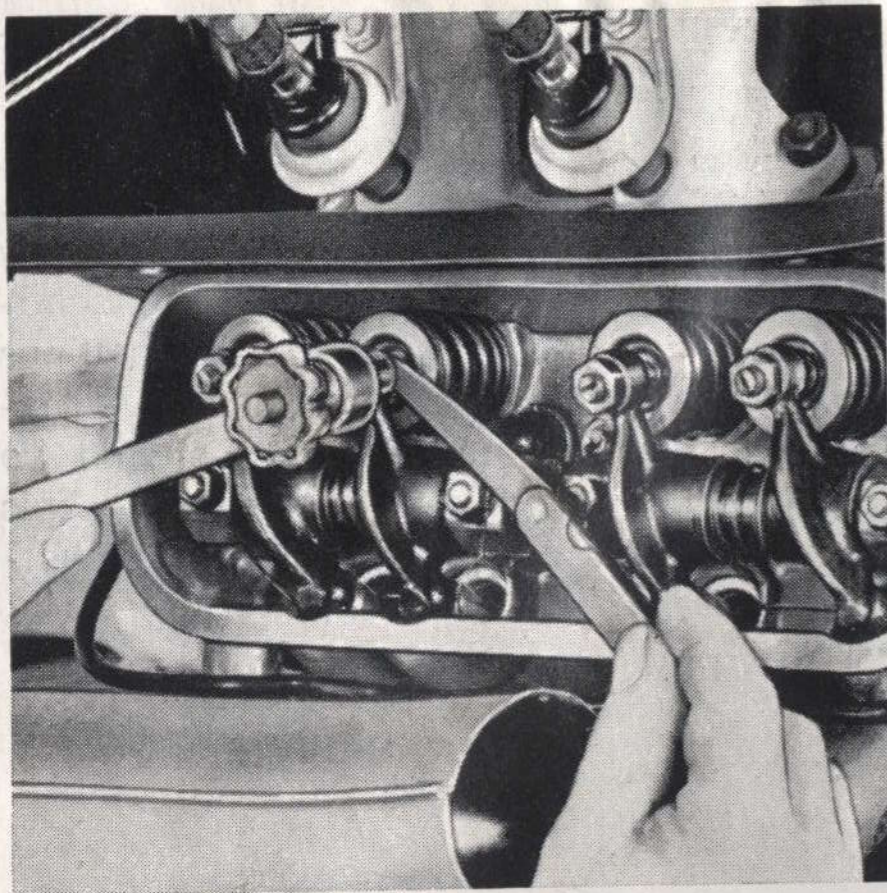
Excessive valve clearance results in a noisy engine and loss of power. Insufficient valve clearance causes poor performance and results in burned valves.

Consequently, we recommend that the valves be adjusted at your authorized dealer. The valves should be adjusted only when the engine is cold.

Valve clearance is adjusted in the cylinder order 1-2-3-4.

The piston of the cylinder to be adjusted must be at TDC of the compression stroke, because both valves will then be closed.

- 1 - Move cylinder 1 to firing point
TDC mark of Cylinder 1 on the crankshaft pulley (white notch or 0 mark) to be in line with the notch in the blower housing.



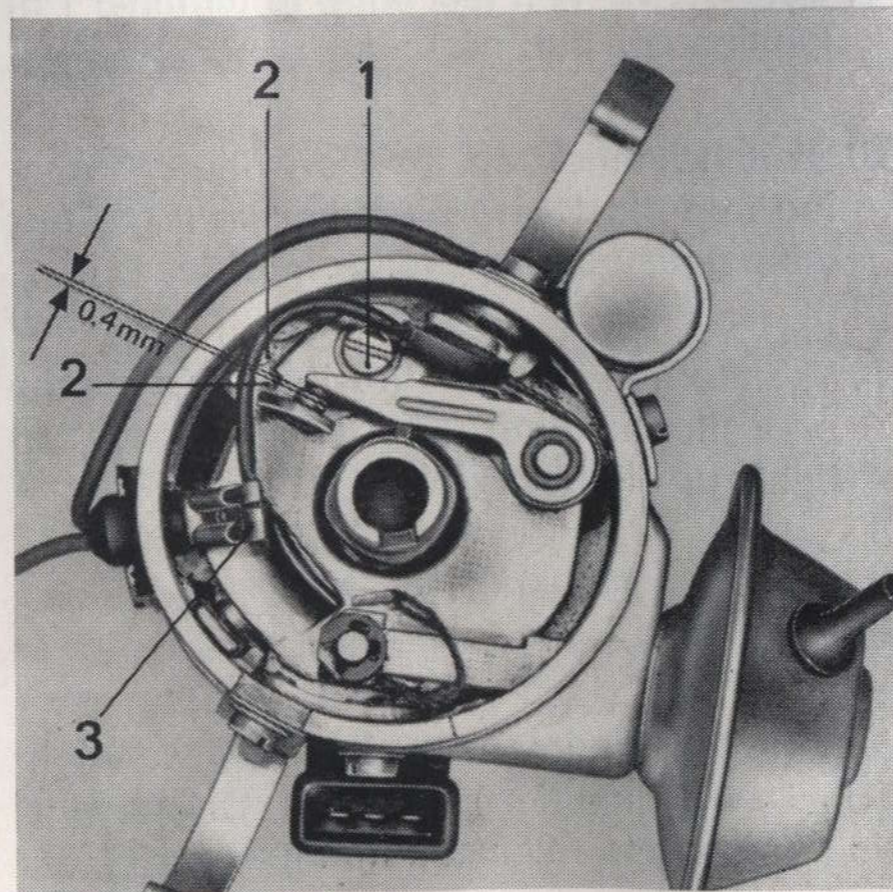
- 2 – Measure valve clearance with feeler gauge.
- 3 – Adjust valve clearance with valve adjusting tool and feeler gauge.
The valve clearance is set correctly when the feeler gauge can be smoothly inserted in between the adjusting screw and the valve stem. Inserting the feeler gauge with more or less force would be wrong.
- 4 – Hold adjusting screws and tighten lock nuts.
- 5 – Check adjustment.
- 6 – For additional adjustment of valves on cylinder 2, 3 and 4, keep turning crankshaft to the left until the finger of the distributor rotor is offset by 90° in each case.

- 7 – Check valve cover gaskets and replace if defective. Reinstall valve covers.
- 8 – Start engine and check valve operation and for leaks.

Breaker points

Pitted or worn points must be replaced

1. Remove retaining screw (1).
2. Interrupt electrical connection (3).
3. Take off pitted or worn points and install new.
4. Adjust breaker point gap to 0.016 in. (0.4 mm).
5. Reinstall rotor and fasten distributor cap.



Adjusting Breaker Point Gap

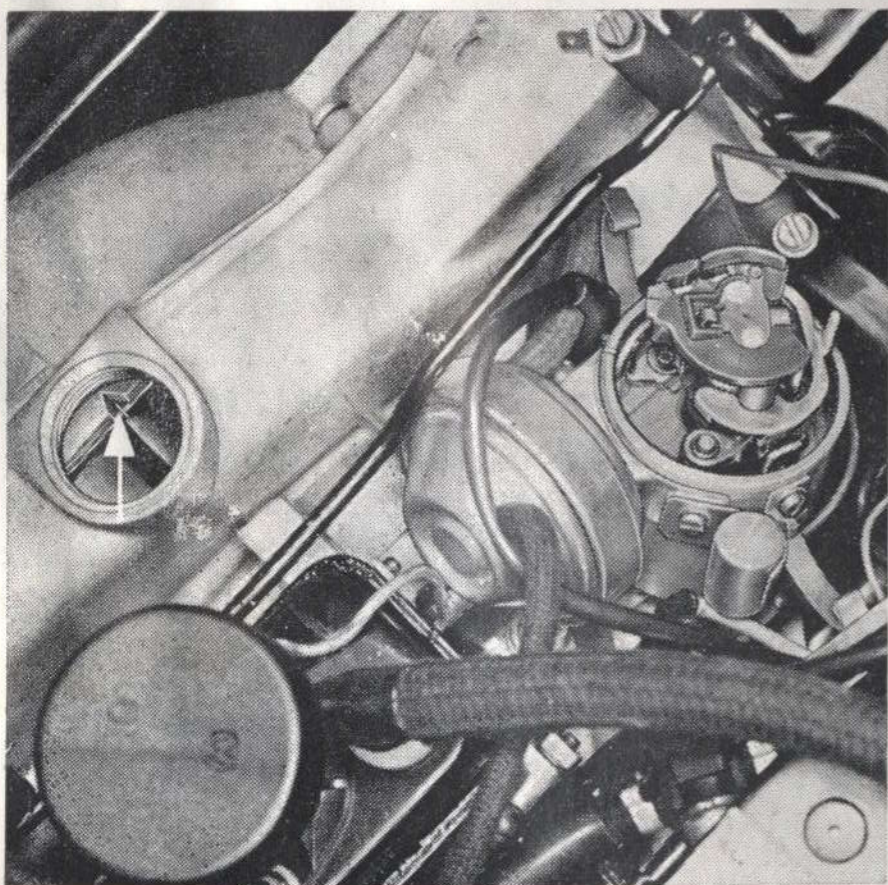
1. Remove distributor cap and rotor.
2. Turn the crankshaft until a cam lobe of the distributor shaft has fully raised the breaker point arm.
3. Loosen the retaining screw (1).
4. Adjust the breaker point gap with a feeler gauge to 0.016 in. (0.4 mm) or the dwell angle with a dwell meter to 44° – 50° .
5. Tighten the retaining screw.
6. Recheck the breaker point gap or dwell angle and re-adjust if necessary.

Note

The contact breaker point gap will change as a result of cleaning, adjusting or replacing breaker points. This however, will influence the ignition timing, which in turn will affect the exhaust emission. Federal Government regulations specify permissible exhaust emission. Therefore contact breaker point gap adjustments should only be made with the necessary instruments (such as stroboscopic timing light, dwell meter and tachometer) by an authorized dealer or other properly equipped workshops.

Adjusting Ignition Timing

Improper adjustment of the ignition timing affects the exhaust emission. Federal Government regulations specify permissible exhaust emissions. Therefore, ignition timing adjustments should only be made with a stroboscopic timing light and tachometer. Your authorized dealer has the proper equipment and Porsche trained mechanics to perform the required adjustments.



The following steps describe only a basic adjustment of the ignition timing:

After each adjustment of breaker points, the ignition timing must be reset.

The ignition timing can be set with a 12-Volt test lamp as follows:

1. Remove distributor cap.
2. Turn engine until rotor aligns with notch on No. 1 cylinder.
3. Loosen nut of distributor housing.
4. Connect 12-Volt test lamp to terminal 1 of ignition coil and ground.
5. Switch ignition on, turn distributor housing in a clockwise direction until the test lamp goes out (breaker points closed).
6. Then turn distributor housing slowly in the opposite direction until the test lamp just lights up (breaker points open).

Note

Turning distributor housing to the right (clockwise direction) means retarded ignition, to the left advanced ignition.

7. Tighten distributor nut and reinstall distributor cap. Turn off ignition.

8. **Important.** After this basic adjustment, the ignition timing must be set correctly with a stroboscopic timing light and tachometer. Idle and exhaust emission settings must be checked and corrected as necessary. Also, vacuum advance should be checked and adjusted if necessary. This work should be performed by an authorized dealer.

Air Cleaner

A dirty air cleaner not only reduces engine performance, but can lead to premature engine wear. If driving is mostly done in areas where the air is very dusty, the air cleaner must be checked frequently – perhaps daily.

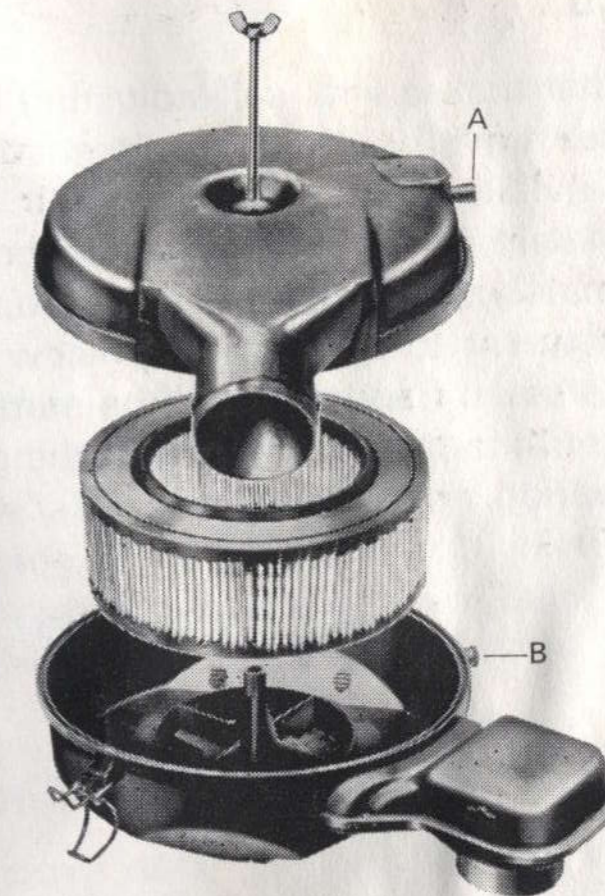
Note

When removing air cleaner hoses, mark each hose so that they will be properly reconnected.



Porsche 914 - 2.0

1. Remove the following hoses from the top of the air cleaner:
 - a. Overrun air supply
 - b. Fuel tank venting
 - c. Supplementary air
 - d. Crankcase venting
2. Loosen slotted screw and release three clips.
3. Remove top part of air cleaner.
4. Remove filter element and clean the inside of housing with an oiled cloth. **Do not use frayed rags or similar materials.**
5. Tighten slotted screw and reconnect all hoses properly.

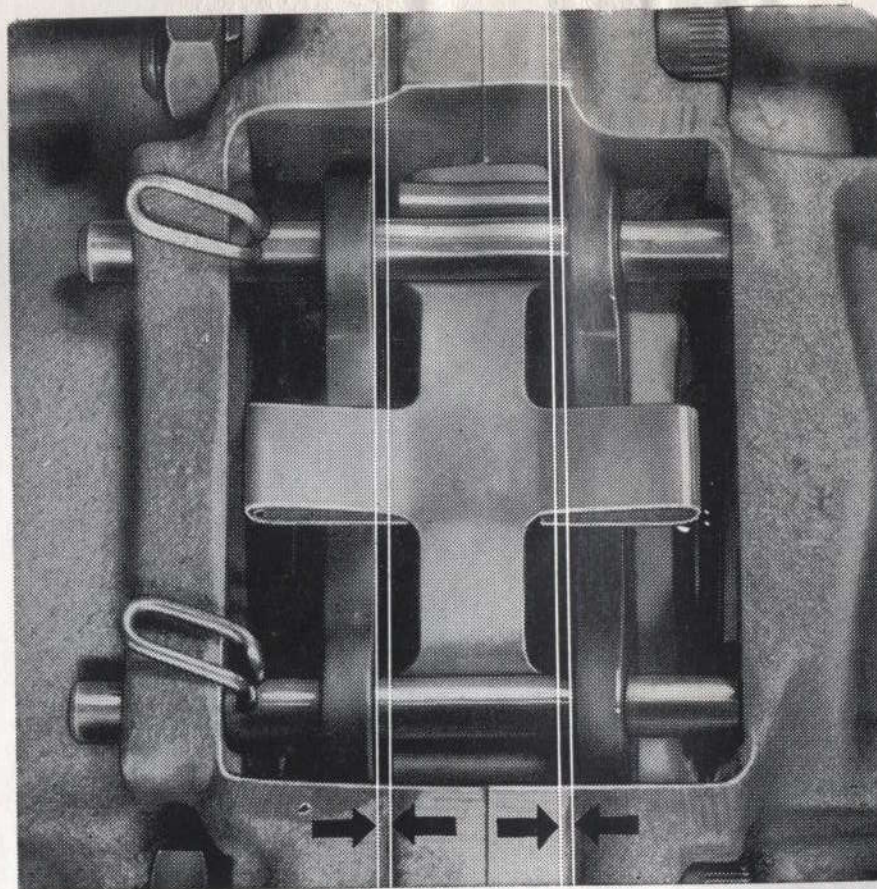


Porsche 914 - 1.7

1. Remove the following hoses from the air cleaner:
 - A Crankcase venting
 - B Fuel tank venting
2. Loosen wing screw in center of air cleaner.
3. Remove top part of air cleaner.
4. Remove filter element and clean the inside of housing with an oiled cloth. **Do not use frayed rags or similar materials.**
5. Tighten wing screw and reconnect all hoses properly.

Brakes

Since the brakes are self-adjusting, brake pedal free travel will remain constant at all times providing that there is no air in the brake system. The pedal free travel represents approximately 30–50% of the total pedal travel. Subsequent to installation of new brake pads, the pedal free travel will be somewhat longer until the pads have passed the conditioning period.



Brake Pads

Brake pad wear will depend mainly upon the degree of usage, type of driving, and condition of the roads. It may be expected that the pads will wear faster on dirty and wet roads (winter-serviced).

Various types of brake pads are available, such as for normal use or for competition. Competition brake pads wear slower but require higher pedal pressures. We suggest that competition brake pads be removed prior to the onset of the cold season and replaced with pads designed for normal use.

Thickness of the pads should be checked during all preventive maintenance operations or whenever the wheels are taken off the car (visual check). The brake pads must be thick enough between the brake pad plate and the cross spring to allow a reserve for further wear (see illustration). The permissible wear limit has been reached once the brake pad plate comes to rest against the cross spring (brake pad thickness approx. 2 mm or 0.08 in.). We also suggest that the condition of the brake pads be checked prior to departure on long trips.

Replacing Brake Pads

Each car, as such, must be equipped with brake pads of identical type and brand on all wheels. Even though it is permissible to replace individual pads under certain circumstances, we recommend that the pads of a given axle be replaced altogether.

Brake pads which were in use and are to be removed for any reason should be appropriately marked to ensure that they are installed in their original position upon re-assembly.

1. Place car on stands and remove wheels.
2. Remove safety locks and retaining pins, depress spring and remove.
3. Mark pads prior to removing, then remove.
4. Using a piston depressor, push pistons fully back. If the special tool is not available, the pistons may be pushed back with a piece of wood. Do not use other tools or improvisations for this purpose to avoid damaging the pistons or brake discs.

Note

When the pistons are pushed back, hydraulic fluid is forced out of the cylinder and flows back into the reservoir. To prevent spillage drain some of the brake fluid before pushing the pistons back. The siphoning tool used

for this purpose should be completely clean and should not come in contact with anything but the hydraulic brake fluid.

5. Clean pad seating and supporting surfaces within the housing using denatured alcohol; do not use mineral solvents or sharp objects.
6. Check dust covers and safety rings for condition. Replace covers when hardened or porous.
7. Clean brake discs with fine-grade emery cloth.
8. Install new brake pads with retaining pins, springs, and safety locks. The brake pads must fit freely in their wells. If necessary, install new safety locks and cross springs.
9. Follow the same procedure on remaining brakes.

Note

Use only replacement pads available at your authorized dealer. Prior to driving the car, depress the brake pedal as far as it will go to bring the brake pistons and pads into their normal position. Afterwards, check hydraulic fluid level in the reservoir and replenish if necessary.

Breaking - in Brake Pads

Every vehicle equipped with disc brakes requires a certain run-in period. Therefore allow for longer braking distance during the first 100–150 miles. After that the brakes have reached their full efficiency.

Bleeding Brake System

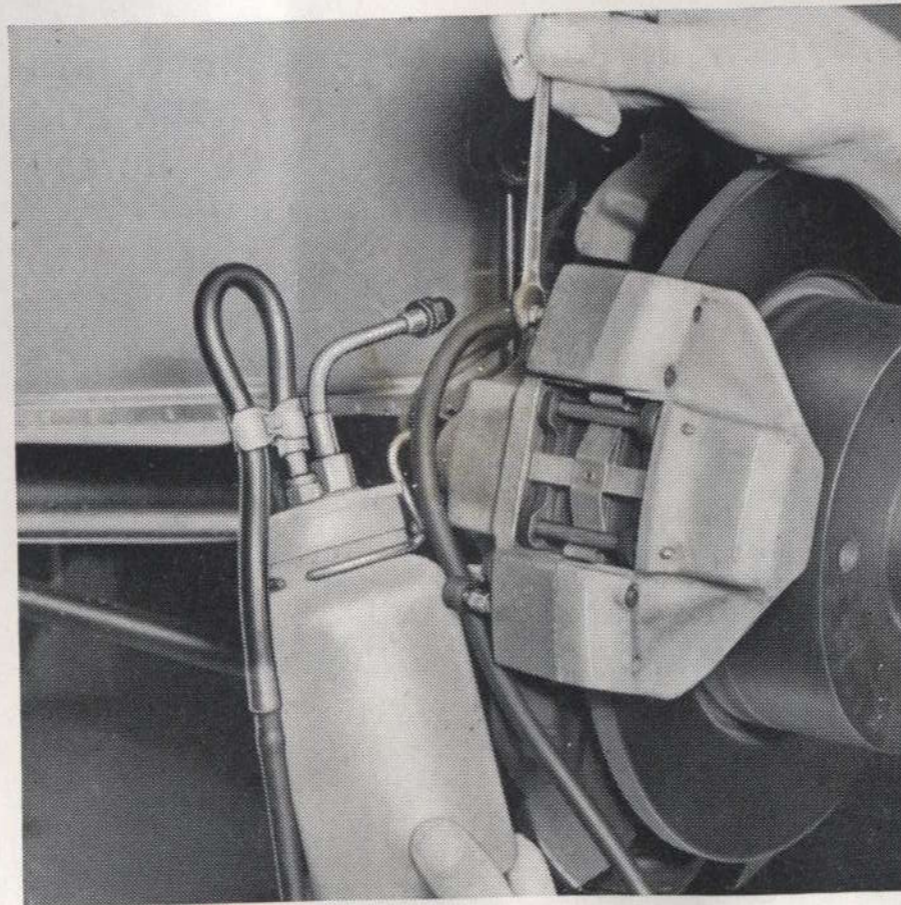
After any repairs in the brake system due to excessively long pedal travel combined with poor braking action, or due to unevenly pulling brakes, the particular brake circuit (or both circuits, if necessary) must be bled. The work requires two persons and always is initiated at the farthest point from the brake master cylinder:

Rear wheel circuit:

1. Right rear wheel
2. Left rear wheel

Front wheel circuit:

3. Right front wheel
4. Left front wheel



Note

When the hydraulic brake system is to be drained, it should be first filled, as outlined below, and then bled. Open the bleeder valve by about one-half turn, depress brake pedal, close bleeder valve, and release brake pedal. The procedure must be repeated in this sequence until brake fluid begins to flow through the bleeder hose; this applies to all wheels and should be done in the proper sequence as outlined. Having filled the hydraulic system with the brake fluid, proceed with the actual bleeding operation.

Bleeding Procedure

1. Remove dust cap from bleeder valve and attach bleeder hose.
2. Place the free end of the bleeder hose into a glass container which has some hydraulic fluid in it so that the hose can be submerged.
3. Quickly pump the brake pedal several times until pressure can be felt. Holding the pedal down, open the bleeder valve by about one-half turn and push the brake pedal all the way down. Do not release the pedal until the bleeder valve has been closed again. Repeat this procedure until bubbles cease to appear in the fluid at the end of the hose.
4. Close bleeder valve, remove bleeder hose and install dust cap.

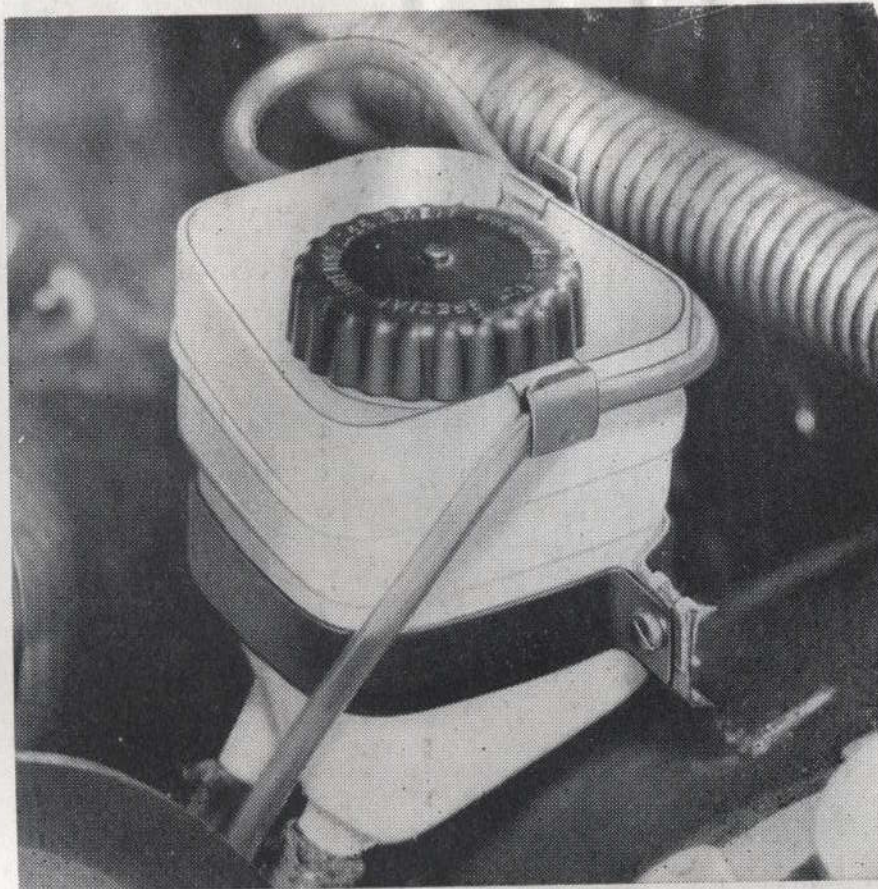
5. Repeat the above on all other bleeder valves in the outlined sequence. Make sure that the brake fluid reservoir does not run dry since this would allow air to re-enter the system.

Hydraulic brake fluid will damage the paint finish.

Brake fluid which has been pumped out of the brake system must not be used again.

6. Check for proper effect of bleeding and for leaks by holding the brake pedal under pressure.

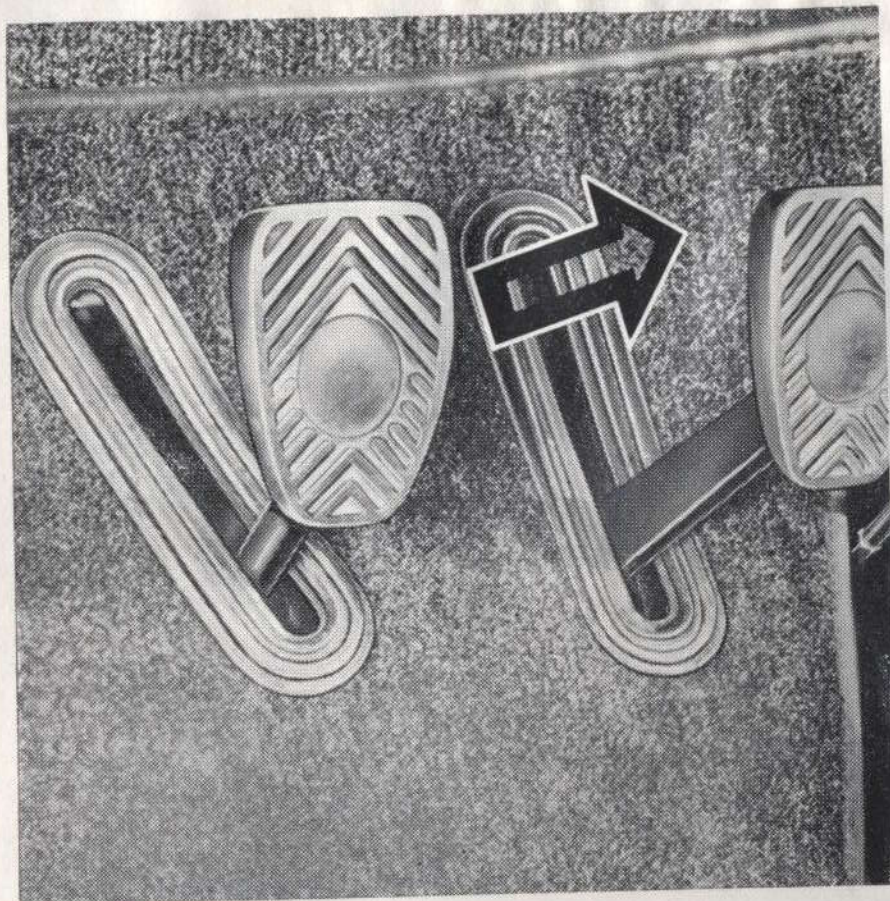
7. Fill the reservoir with brake fluid.



Only new, unused brake fluid that meets the SAE recommendation J 1703 and conforms to Motor Vehicle Safety Standard No. 116 must be used.

Brake Fluid

Brake fluid level in the reservoir must be checked at regular intervals and replenished whenever below the top mark. Due to the relatively large cylinder cross-section in the brake calipers, the brake fluid level in the reservoir will decrease at a much faster rate, due to brake pad wear, than in cars equipped with drum brakes. If the brake system has been completely drained for any reason, such as complete brake overhaul, and then refilled, it may become necessary to bleed the brakes again after a short test drive.

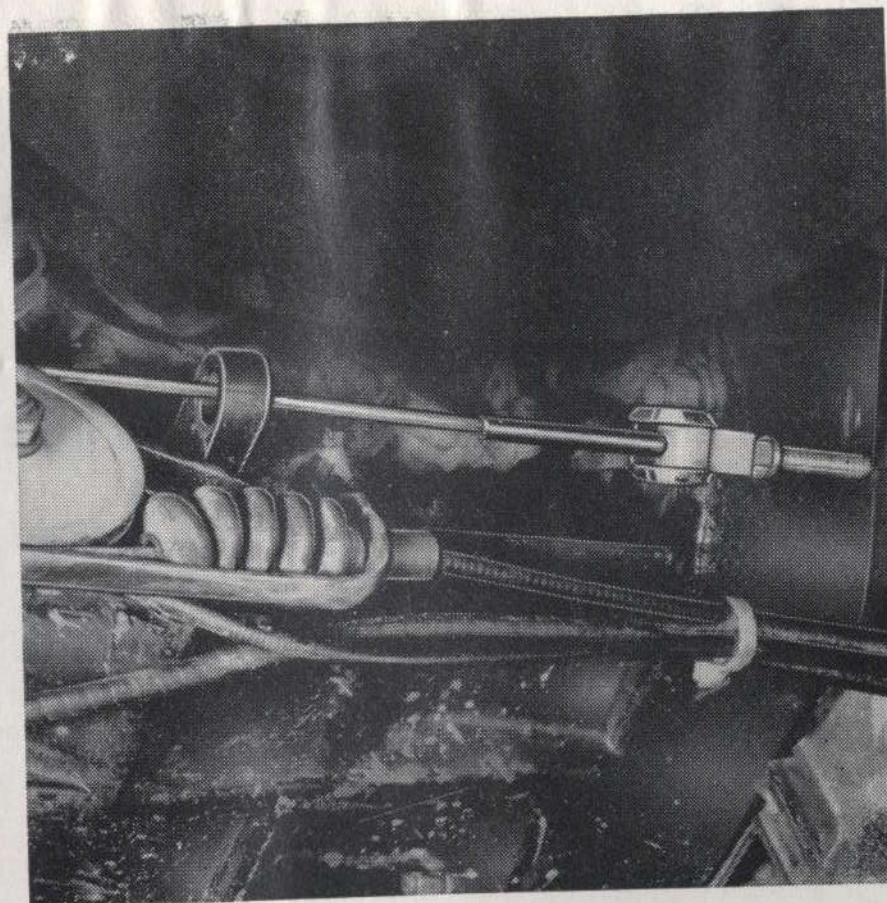


Clutch adjustment

Check:

Clutch pedal play should be $\frac{1}{2}$ to $\frac{3}{4}$ " (15 to 20 mm). It is checked by moving the clutch pedal away from the floorboard (in direction of arrow).

Too tight of an adjustment can cause the clutch to drag and thus become unserviceable.



Adjust

Turn the self-locking nut until clutch pedal play is $\frac{1}{2}$ to $\frac{3}{4}$ " (15 to 20 mm). Hold threaded cable ends with pliers if necessary.

Checking and Adjusting Pedal Travel

The use of the diaphragm type clutch pressure plate necessitates precise limiting of clutch pedal travel. This adjustment should be checked when the transmission is warm and the engine running at idle speed. Depress clutch pedal and check ease of shifting into reverse gear. If the adjustment is correct, the reverse gear will engage practically clash free. The pedal travel stop is a flat piece of metal with an oval hole for adjustment, attached to the floor with two bolts.

1. Unsnap forward part of floormat.
2. Loosen both stop retaining bolts.
3. Move pedal stop up or down, as required until the proper position, is reached i. e., when the reverse gear will engage practically clash-free.
4. Tighten pedal stop retaining bolts.
5. Recheck pedal travel and fasten floormat.

Adjusting Toe

Uneven wear found on one or more tires may be the result of improper toe adjustment. In such cases, the car should be taken to an authorized dealer equipped with an optical measuring system to check the alignment.

Note

Toe-in can be measured only when the car is standing on its wheels on level ground. When measuring toe-in the car must be empty at curb weight, i. e., with full gasoline tank.

Tires

Porsche tires comply with all applicable Federal Motor Vehicle Safety Standards. When purchasing replacement tires, make sure that they show the same specifications for tire size, load carrying capacity, tread pattern, etc. This also applies to Porsche-recommended replacement tires.

New tires do not grip the road as well during the first 60–125 miles as after this period. Extra care should be taken when driving with new tires.

Recommendation :

When replacing only two tires they should be mounted both on the front axle.

Type 1.7

155 SR 15 on 4 $\frac{1}{2}$ J \times 15 steel rim.

Option:

165 SR 15 on 5 $\frac{1}{2}$ J \times 15 steel rim or light alloy.

Type 2.0

165 HR 15 on 5 $\frac{1}{2}$ J \times 15 steel rim or light alloy.

Tire pressures

For good car handling and long tire service life, it is important to maintain recommended tire pressures. Tires which are inflated above or below specifications can cause increased tire wear, increased gas consumption and affect the road holding of the car.

In the interest of safety, check the tire pressure of all tires, including the spare tire, at least once a week, and always before going on a long trip. Also, check for unusual wear or damage such as cuts, broken cord and punctures.

The tire pressure will increase as temperatures rise. Never let air out of warm tires to meet cold tire specifications.

Check tire pressure when the tires are still cold.

Normal tire pressure:

Front – 26 psi (1,8 atm)

Rear – 29 psi (2,0 atm)

Snow tire pressure:

Front – 29 psi (2,0 atm)

Rear – 32 psi (2,2 atm)

For road use, do not exceed the maximum tire inflation pressure listed on the sidewall of the tire.

Tire Wear

If you notice that tires are wearing unevenly, consult your authorized dealer.

Uneven wear may not always be due to improper wheel alignment. It can be the result of individual driving habits such as cornering at high speeds. If the tire pressure is not checked and adjusted regularly, abnormal tire wear can also occur.

Do not drive with worn tires or tires showing cuts or bruises as they may lead to sudden deflation.

Rims

When changing from the original rims to other rims, only purchase rims that correspond to Porsche specifications for your model. Check with your authorized dealer regarding the correct rim specifications for type and model year.

Wheel balancing

A wheel should always be balanced after a tire repair. Also, since regular use or hard braking can cause tire imbalance, the wheels should be balanced from time to time. Unbalanced wheels may affect car handling and tire life.

Winter Tires

Winter tires give good traction in snow or slush. For a better grip on hard snow or ice, you can use **winter tires with studs**, but **check with your local Motor Vehicle Bureau for possible restrictions.**

Winter tires with **studs** should be run at moderate speed when new to give the studs time to settle.

We recommend that winter tires always be mounted on all **four wheels**. They should also conform to the same load requirements as original equipment tires.

For safety reasons, it is not advisable to drive with winter tires at top speeds. Winter tires do not have the same degree of traction on dry, wet or snow-free roads as regular tires.

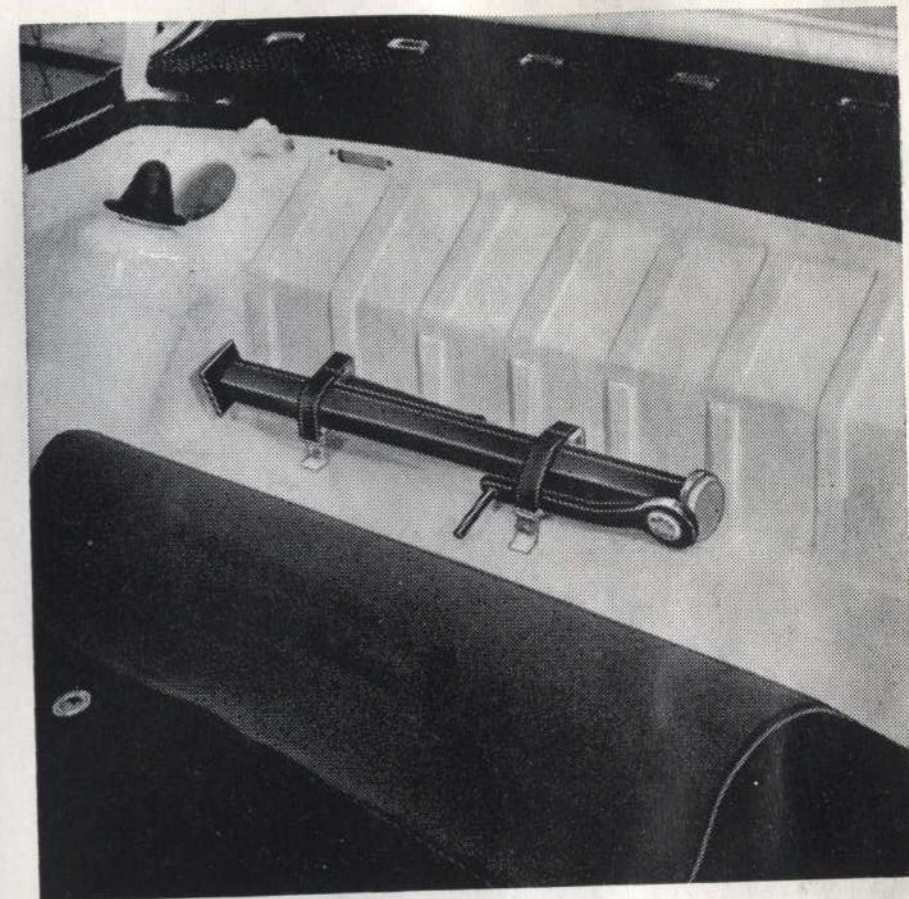
Tool Kit

The tool kit is standard equipment. You will find it in the front luggage compartment.

Kit Contents

(subject to change)

Wheel bolt wrench with breaker bar
Puller for removing hub caps
Double-ended screwdriver
Towing eye



Jack

The jack is stored in the middle of the rear luggage compartment under the floor mat. Use the black key to open the rear luggage compartment.

Place the jack into the luggage compartment as illustrated and tighten both clamps.

Note: The jack is a tool for changing a wheel only. If you work under the car, place a suitable support under car frame.



Spare Wheel

The spare wheel is located in the front luggage compartment under the luggage compartment cover. Since the spare tire supplies the pressure to operate the windshield washer, the spare tire pressure should be between 29–43 psi. This pressure level is only to be maintained for the operation of the windshield washer system. For road use, the pressure in the spare tire should be adjusted as specified.

To check or correct the pressure in the spare tire, first disconnect the hose from the valve near the filler cap of the windshield washer container (see page 28). The spare wheel is connected to this valve and can therefore be

pressurized via this valve. Reconnect the hose to the valve after checking or inflating the spare tire.

If the spare tire is to be used, disconnect the hose at the tire valve. Be sure to adjust the tire pressure to specifications.



Changing a Wheel

If you have a flat tire, move off the roadway. Turn on the emergency flasher. In addition, mark the position of your car with flares or other warning devices to alert other motorists.

Before you change a wheel, be sure the ground is level and firm, especially near the rear wheels where the jack ports are.

Set the parking brake and block the wheels opposite the defective wheel on the other side of the car.

For a more efficient and safe changing of a flat tire, observe the following steps:

1. Take out tools, jack and spare wheel. Remove plug from jack socket.
2. With the wheels still firmly resting on the ground, remove the hub cap by inserting the puller in the holes at the rim of the hub cap. Put the breaker bar through the puller, brace one end of the bar on the wheel rim and tug lightly on the other end.



3. Loosen all wheel nuts counterclockwise about one turn with the wheel nut wrench. Do not yet remove the nuts.

4. Securely insert the jack completely in the jack port. There is one for each side. It is under the body toward the rear and is used for front and rear wheel changing.

Never jack the car up by the bumper or the body.

Provide for a firm base for the jack on the ground. If necessary, use a board.

Passengers should not remain in the car when the car is jacked up.



Do not raise the car until you are sure the jack is securely engaged.

5. To raise the car, turn the handle clockwise.

To get the jack as vertical as possible, push the upper part of the jack toward the body while you are jacking up the car.

Only raise the car as much as is needed to change the wheel.

6. Fully unscrew the wheel nuts and remove the wheel.

7. Place the spare wheel against the wheel hub, reinstall the nuts and handtighten them crosswise.

Be sure the wheel nuts are inserted with the beveled edge toward the wheel. When tightened alternately, the nuts will center the wheel correctly.

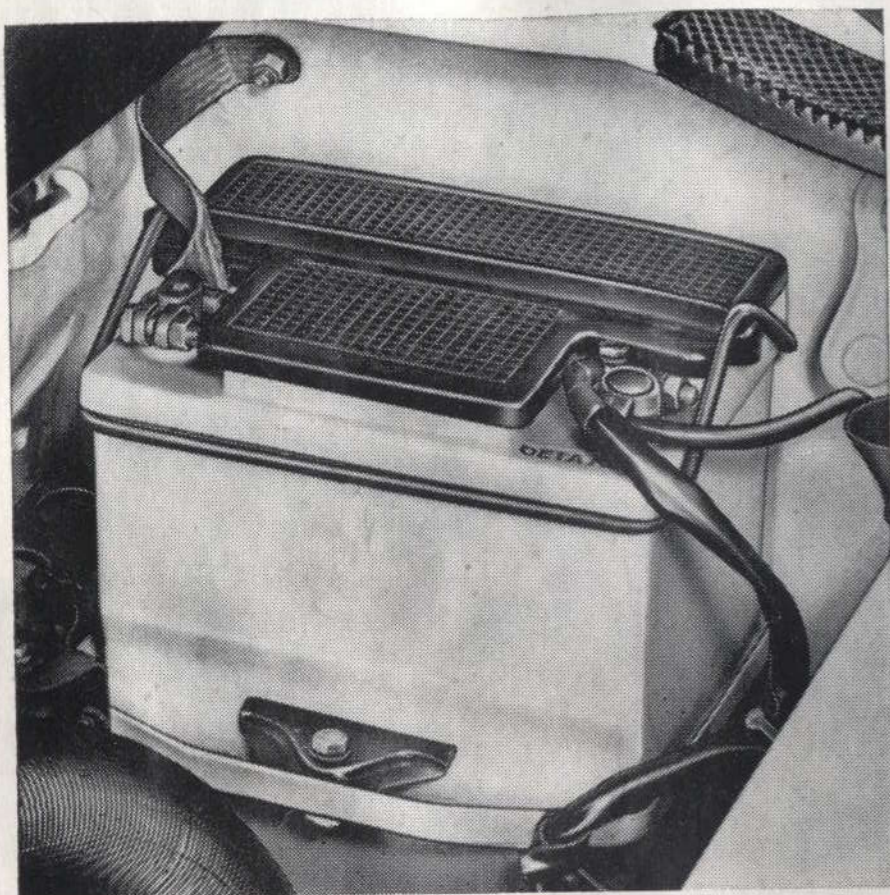
8. To lower the car, turn the handle counterclockwise.

9. Then go crosswise from one nut to another, tightening them firmly with the wheel nut wrench.

10. Correct tightness of the wheel nuts is important. **Correctly tightened nuts should have a torque of 108 lb/ft (steel rims) or 94 lb/ft (aluminum rims).** This torque can be obtained with the wheel nut wrench by any person of average strength. If in doubt about the correct tightness of the wheel nuts, have it checked with a torque wrench by your dealer or at a service station.

11. Reinstall the hub cap with a firm blow of your hand. Make sure it is properly seated.

12. Adjust the air pressure of the tire you have just put on. For correct tire inflation pressures, see pages 54 and 77. Have the defective wheel repaired.



Battery

The battery is located in the right corner of the engine compartment.

The battery must be disconnected before carrying out work on any part of the car's electrical system.

Good starting depends on good condition of the battery. In general, battery care is confined to the addition of distilled water, testing specific gravity of the electrolyte and cell voltage.

The level of the electrolyte contained in the battery decreases with time and use due to deterioration and evaporation of water from the solution. This should be filled only with distilled water. The electrolyte level should not be higher than the check bridge or the control neck. If the battery has none of the above reference points keep the electrolyte level about $1/2$ " above the top of the battery plates.

Testing Specific Gravity of Electrolyte

Specific gravity of the electrolyte is tested with a hydrometer. Following nominal values apply:

Battery fully charged
specific gravity 1.285

Battery half charged
specific gravity 1.230

Battery discharged
specific gravity 1.142

Testing Battery Voltage Battery Care

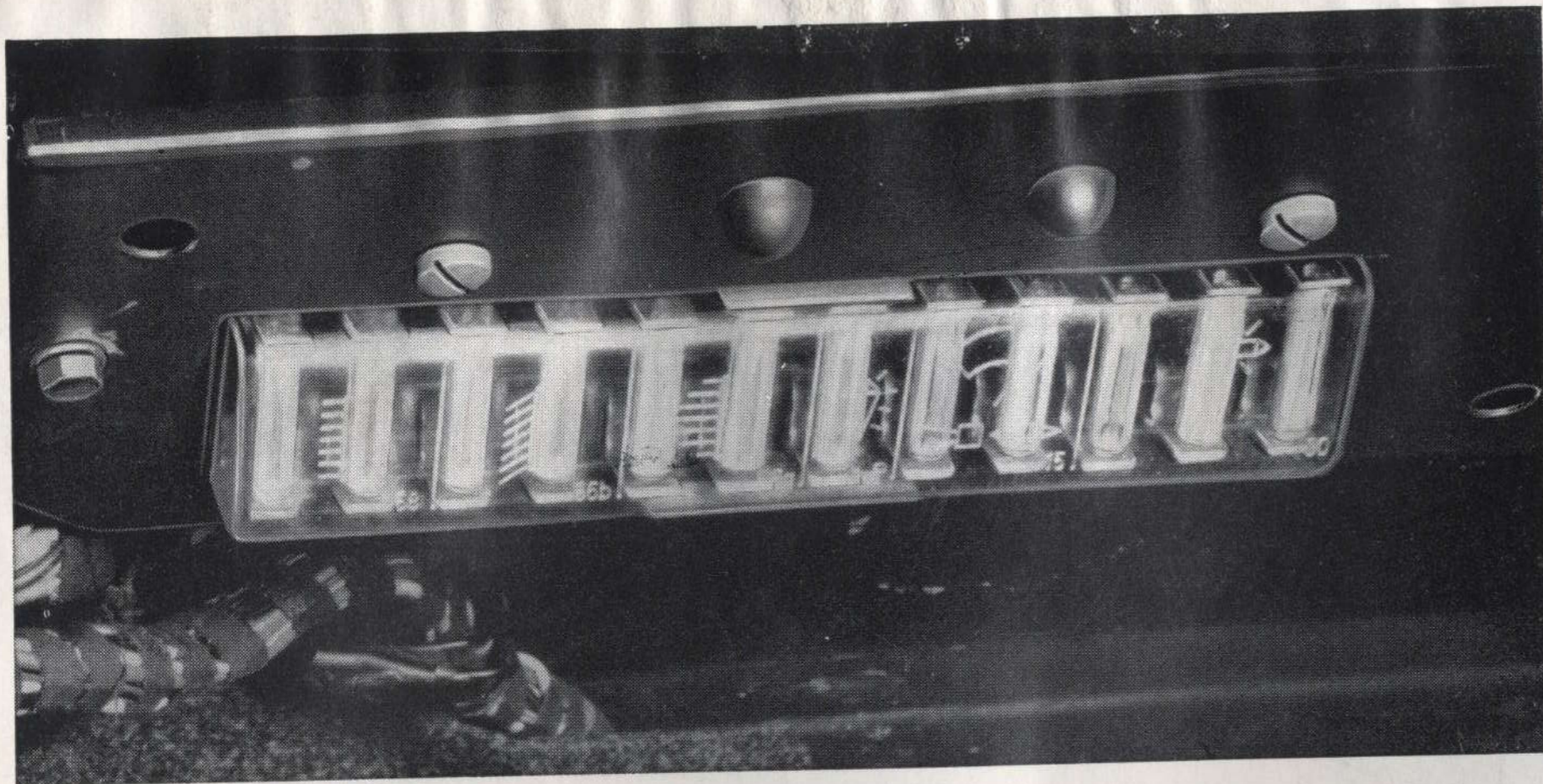
1. The battery must be firmly mounted and covered by the plastic cap.
2. Battery terminals and connections must be kept clean. Corrosion and oxidation can be prevented by coating the terminals and clamps with petroleum jelly or terminal grease.
3. The vent caps must be securely tightened to prevent spillage.
4. Spilled electrolyte must be cleaned off at once with a soda solution to prevent damage to fabrics and metal.

Make sure that the battery is charged at intervals of approx. 6 weeks if the car is not used for long periods. A discharged battery is subject to a rapid formation of sulfates on its plates which leads to their deterioration.

Electrical System

Never run the engine with a disconnected battery, as it may seriously damage electronic components of the electrical equipment.

This applies also to cars which were later equipped with a battery main switch.



Replacing Fuses





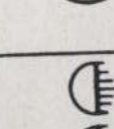
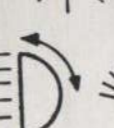
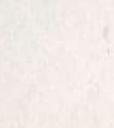
The fuses are located beneath the instrument panel to the left of the steering column and are covered by a transparent plastic cover.

The respective fuses are identified inside the cover.

The numbers on the plastic cover of the fuse box correspond to terminal designations in the wiring diagram.

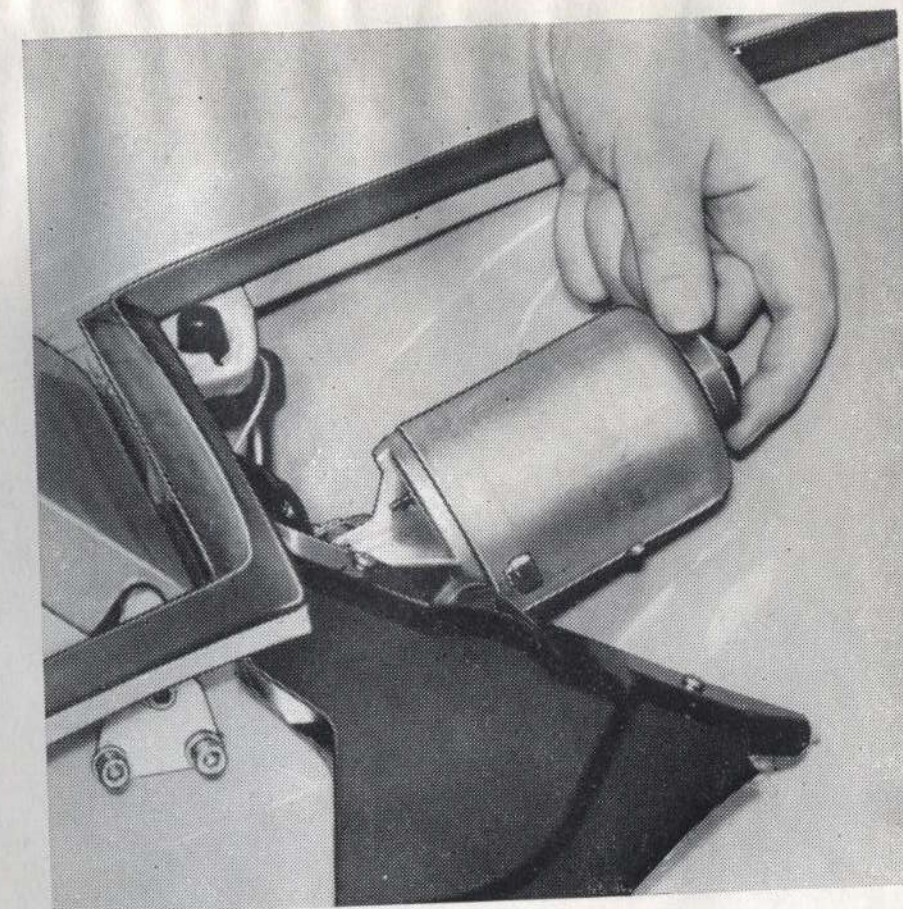
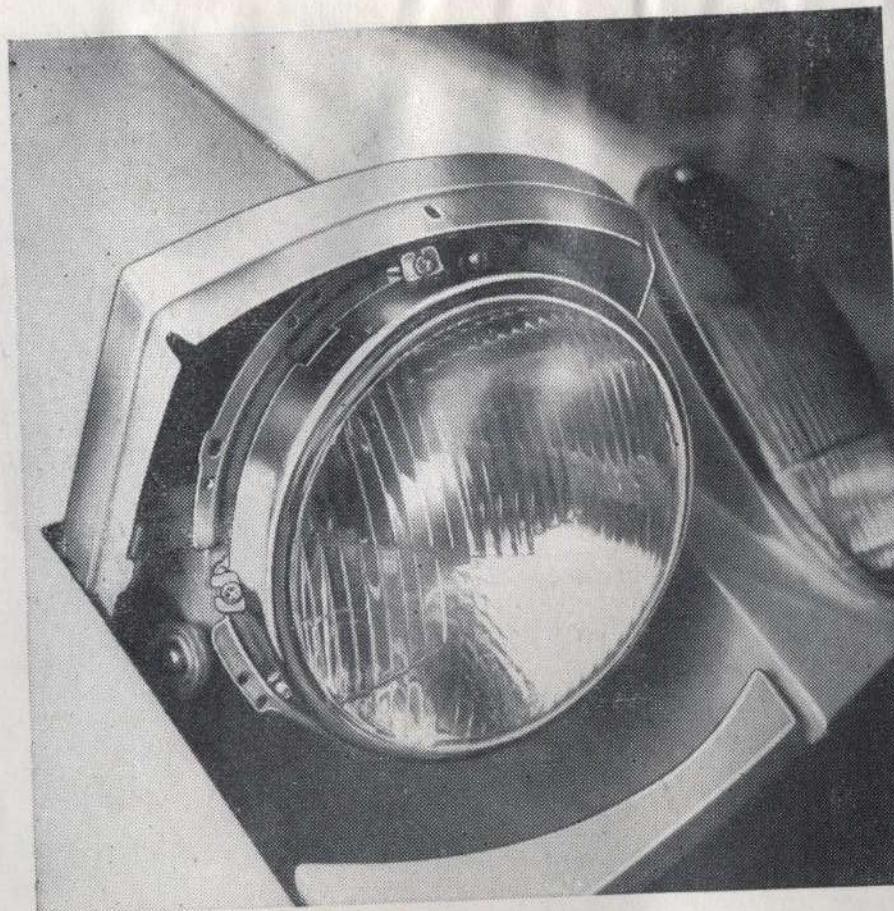
The fuses are held in position by spring clamps and can easily be removed by hand. A burnt fuse indicates an overloading of the circuit; the defect cannot be remedied by simply installing a new fuse. The cause must always be traced. Never repair fuses with wire or foil since it may cause serious damage to other electrical components. Always carry a few spare fuses in the car.

Fuse Capacity

Symbol	Amps	Equipment
	8	left headlight high beam
56a 	8	right headlight high beam
	8	left headlight low beam
56b 	8	right headlight low beam
	8	left parking lights
58 	8	right parking lights
	8	license plate lights
	25	windshield wipers, cigarette lighter turn signals stop lights, back-up light
15	8	fan, horn
	8	(optional) fog lights
	8	emergency flasher interior light
	30 25	retractable headlights

Bulb Chart (12-volt system)

Sealed beam	50/40 W	(6012)
fog light	35 W	
Stop lights	32/3	cp (1034)
Turn signals	32	cp (1073)
Back-up lights	25	W
Interior lights	10	W
Parking lights	5	W
Luggage compartment and license plate lights	4	W
Instrument lights	2	W
Control lamps	1,2 and 2	W
Side marker lights	2	cp (1895)



Changing Sealed Beams

1. Raise the headlights (turn on headlights).
2. **Disconnect the battery.**
3. Loosen the cross-head screw and lift the headlight casing upward.
4. Unscrew the sealed beam rim retaining screws and take out the assembly.
5. Turn back the rubber sheath, press back the retainer spring, take out the sealed beam and replace.

Reinstall in reverse order.

Manual Operation of Pop-up Headlights

If the headlights do not open automatically, they can be operated manually by turning the knob on the end of the motor drive shaft inside the front luggage compartment. Always turn counterclockwise to either close or open the headlights.

Note

Do not turn the knob on the drive shaft if the headlights open and close by pulling the headlight switch. The mechanism may suddenly move and cause hand injury.

Adjusting Headlights

It is best to check the headlight alignment with a regulation screening or aiming device. If none is available, proceed as follows:

Check tire pressures, correct if necessary. Park vehicle on level surface squarely facing a wall or screen 25 feet in front of the headlights. The driver's seat must be loaded with one person or a weight of 154 lbs.

Measure height (a) from ground to center of

- a = Height of headlight center from floor
- b = Distance between headlight centers
- c = 2 in.

headlights and draw a horizontal line (H) on screen at this height the full width of the vehicle.

Opposite the center of each headlight, draw vertical lines (V) intersecting the horizontal. Drawing a vertical line for the center of the vehicle might help aligning vehicle with screen.

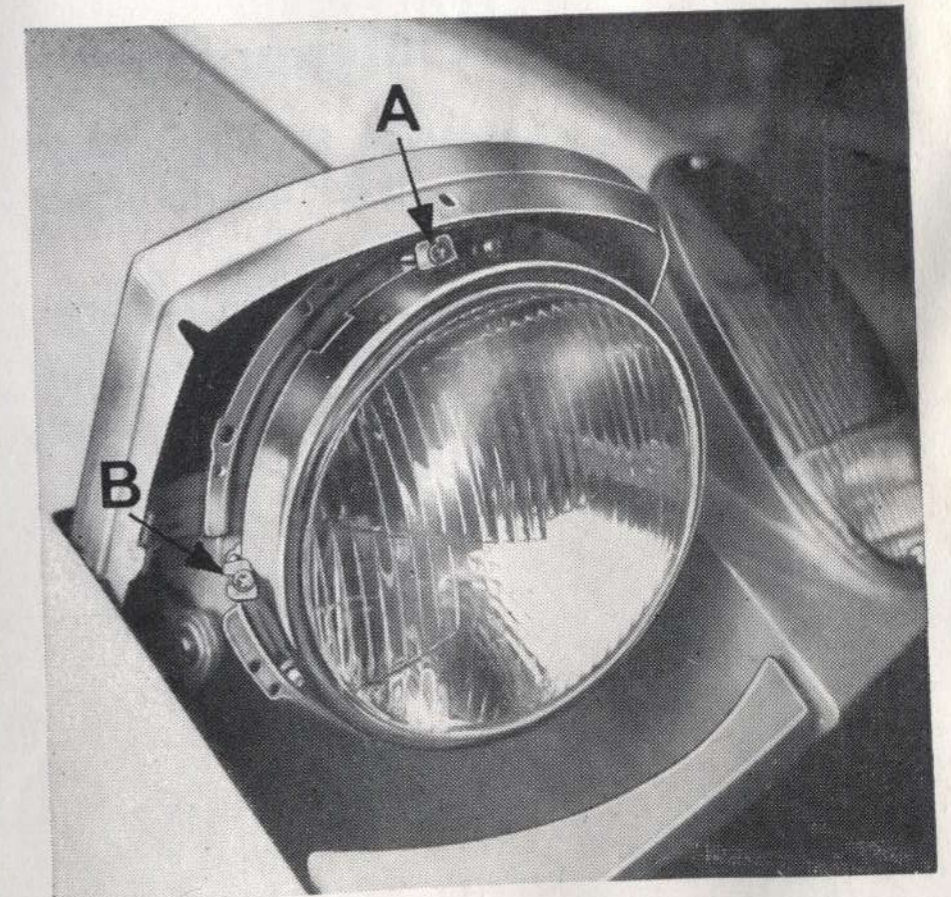
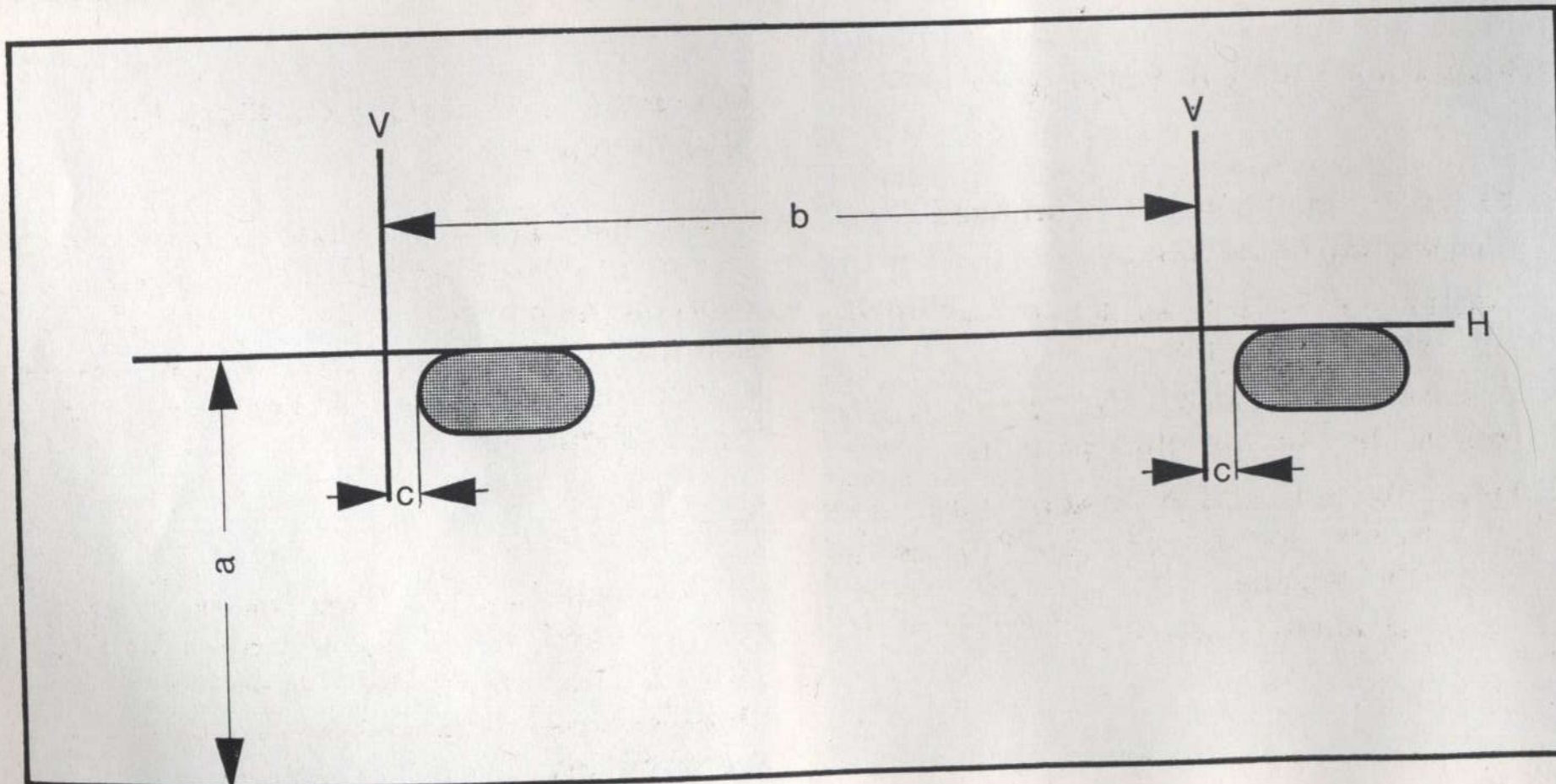
Loosen the screw in the center below the headlight and take the trim ring off.

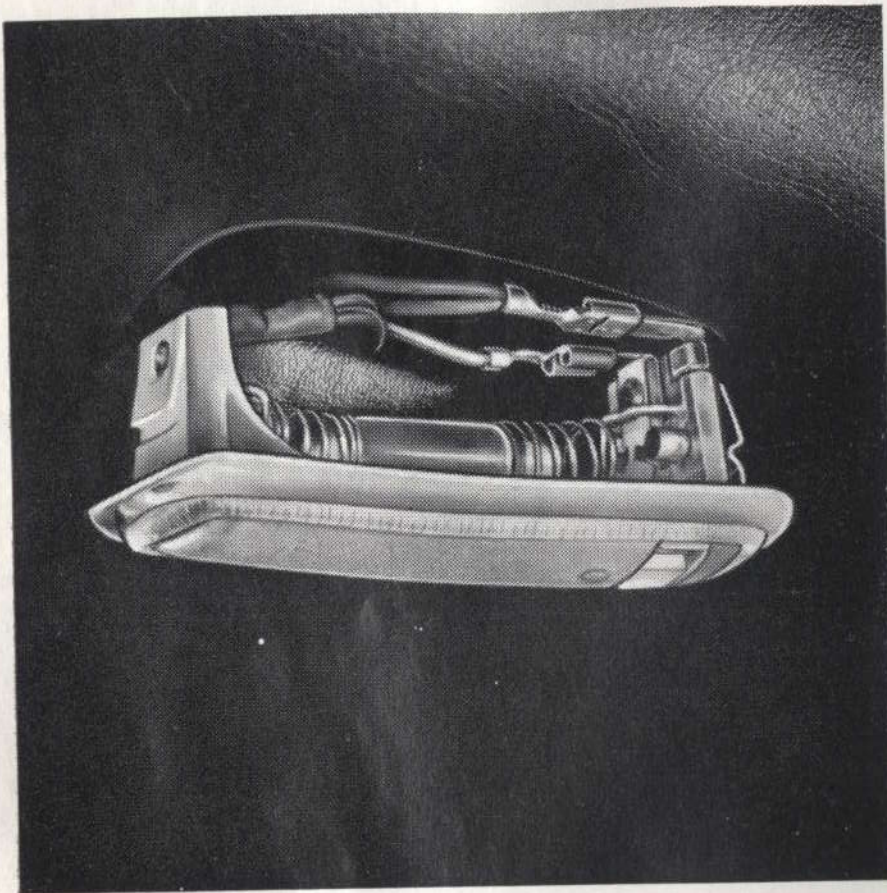
Aim the headlights individually by turning the two aiming screws with low beams switched on. Cover up the second headlight.

The headlights are correctly aimed when the top edge of the high intensity zone is on the horizontal line H and the left edge is 2 in. to the right of the vertical line V.

Check with your local Bureau of Motor Vehicles for variations from these specifications.

- A – Vertical aim
- B – Lateral aim





Changing Bulb of Interior Light

1. Apply small screwdriver to push back clamping spring and pull out interior lamp of backrest cutout.
2. Take out the defective bulb and replace.
3. Insert interior lamp. Be sure that the interior lamp is installed into backrest cutout, with clamping spring end first.

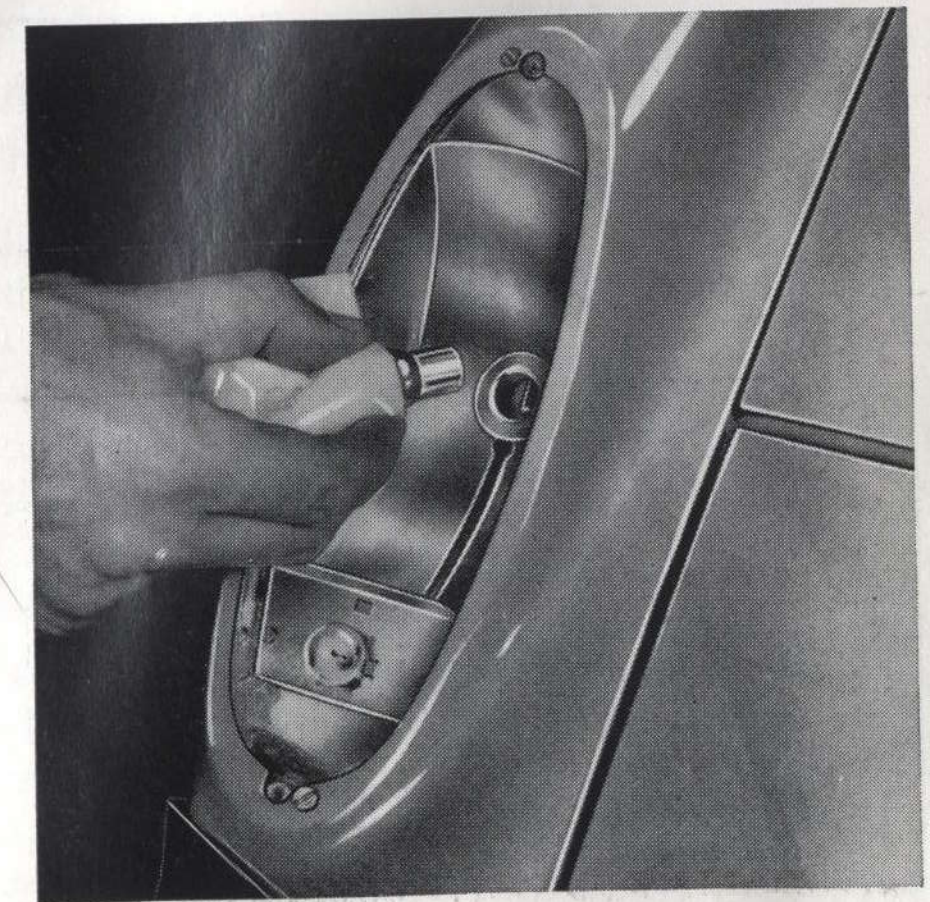
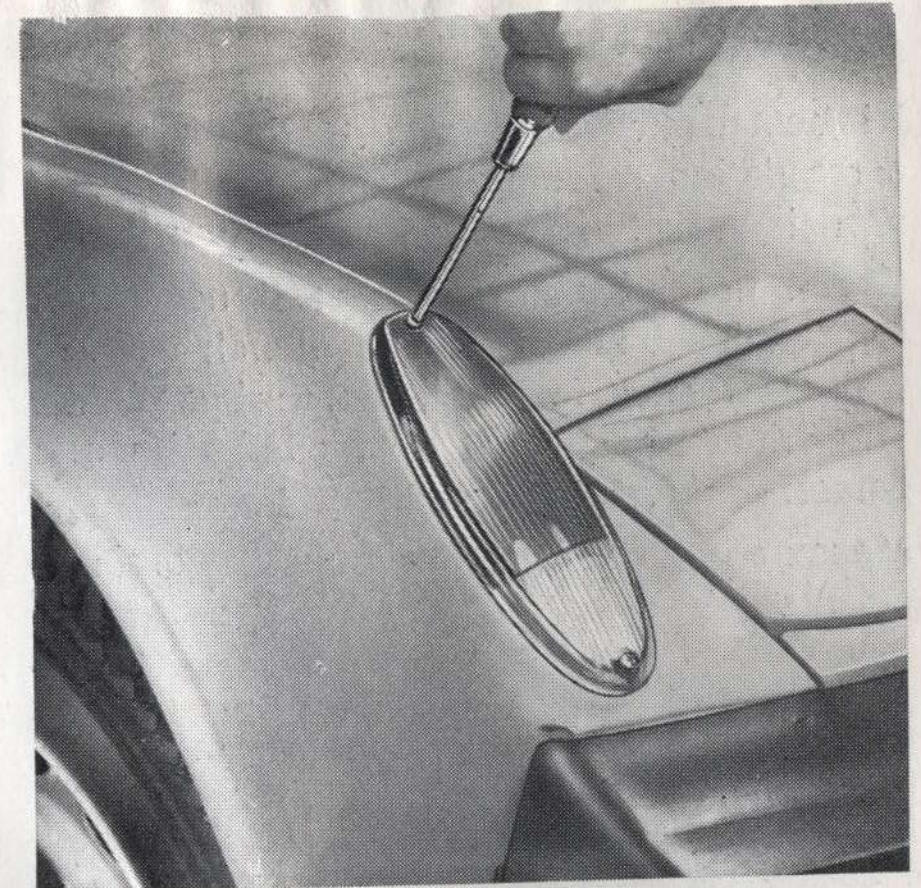
Bulbs for Turn Signals, Parking, Back-up, Side Marker and Stop Light Bulbs

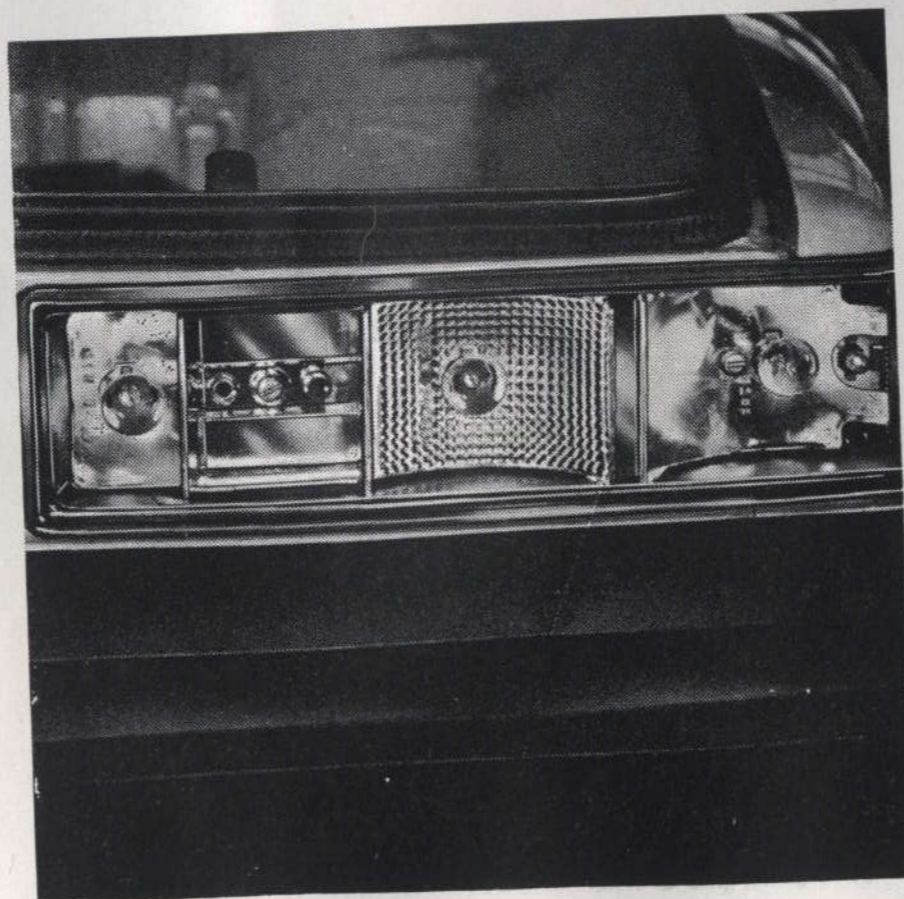
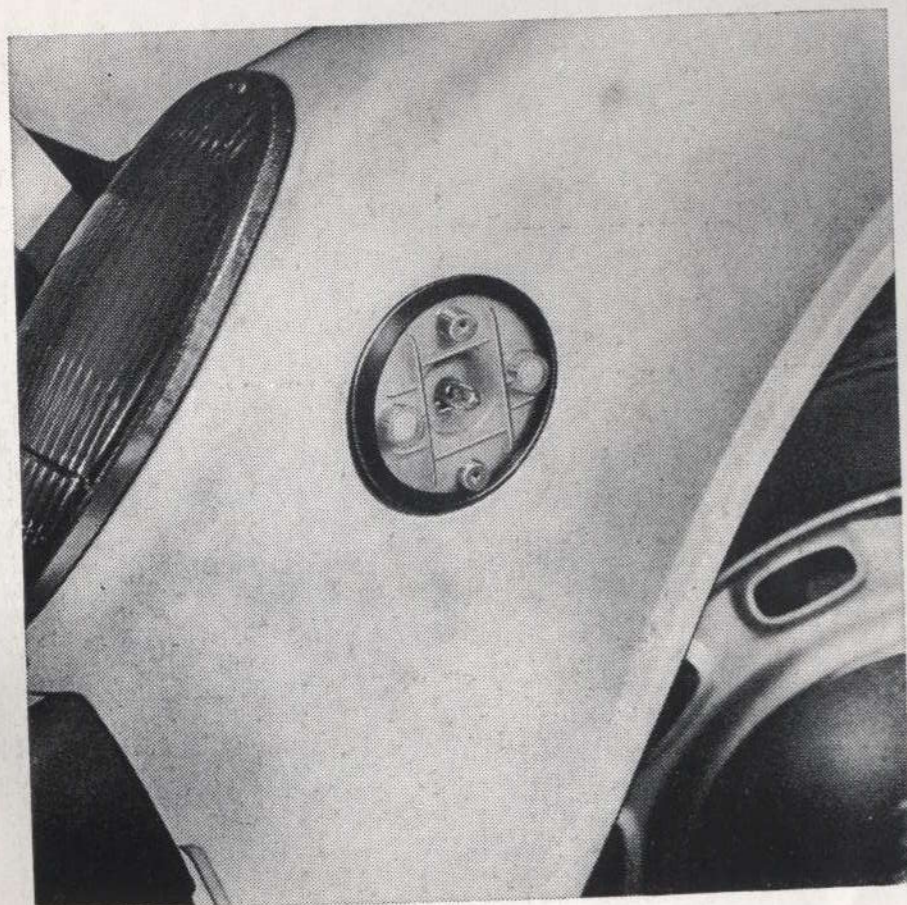
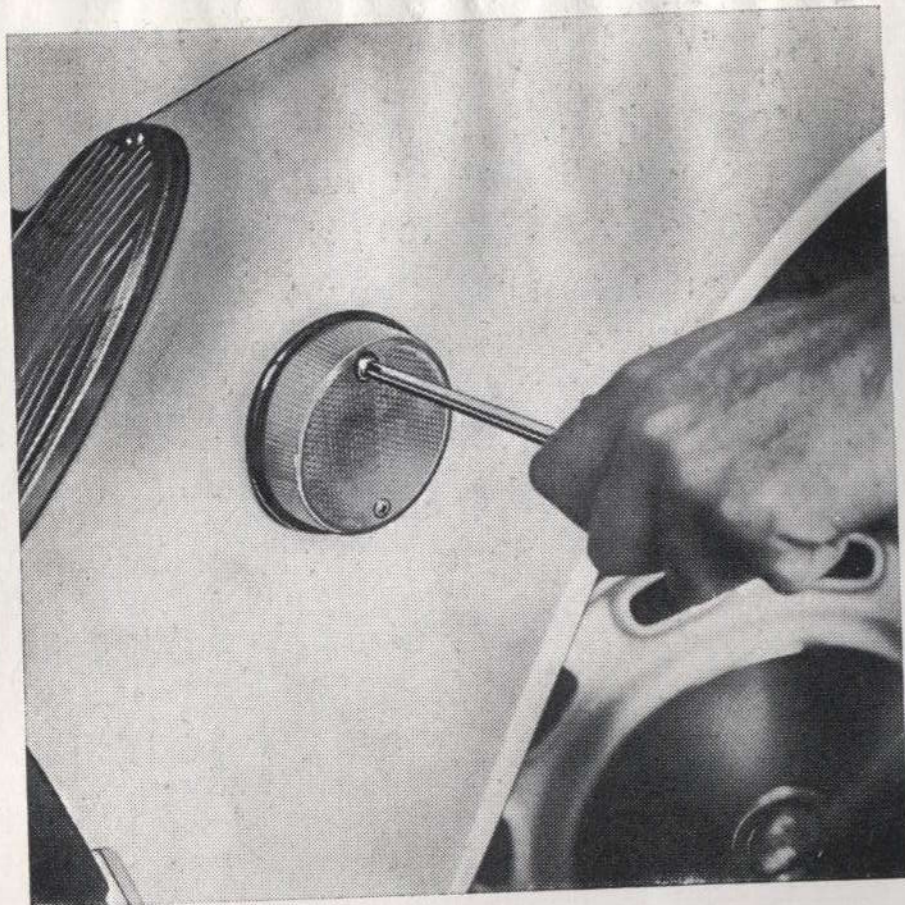
1. Front lights: Remove the two cross-head screws and take off lens.
Rear lights: Remove the three knurled nuts inside of the rear luggage compartment and take off lens.
2. Press the defective bulb and turn to the left (bayonet socket).
3. Take out the bulb and replace.

Note

Keep bulb free of dirt and grease by handling it with a clean cloth or paper.

4. Press the bulb into the holder, turning it to the right until the pins snap into the socket.
5. Front lights: Replace lens and tighten the screws alternately and evenly.
Rear lights: Replace lens and tighten the knurled nuts in the rear compartment alternately and evenly.
6. Check operation of lights.





PORSCHE

914 1.7/2.0

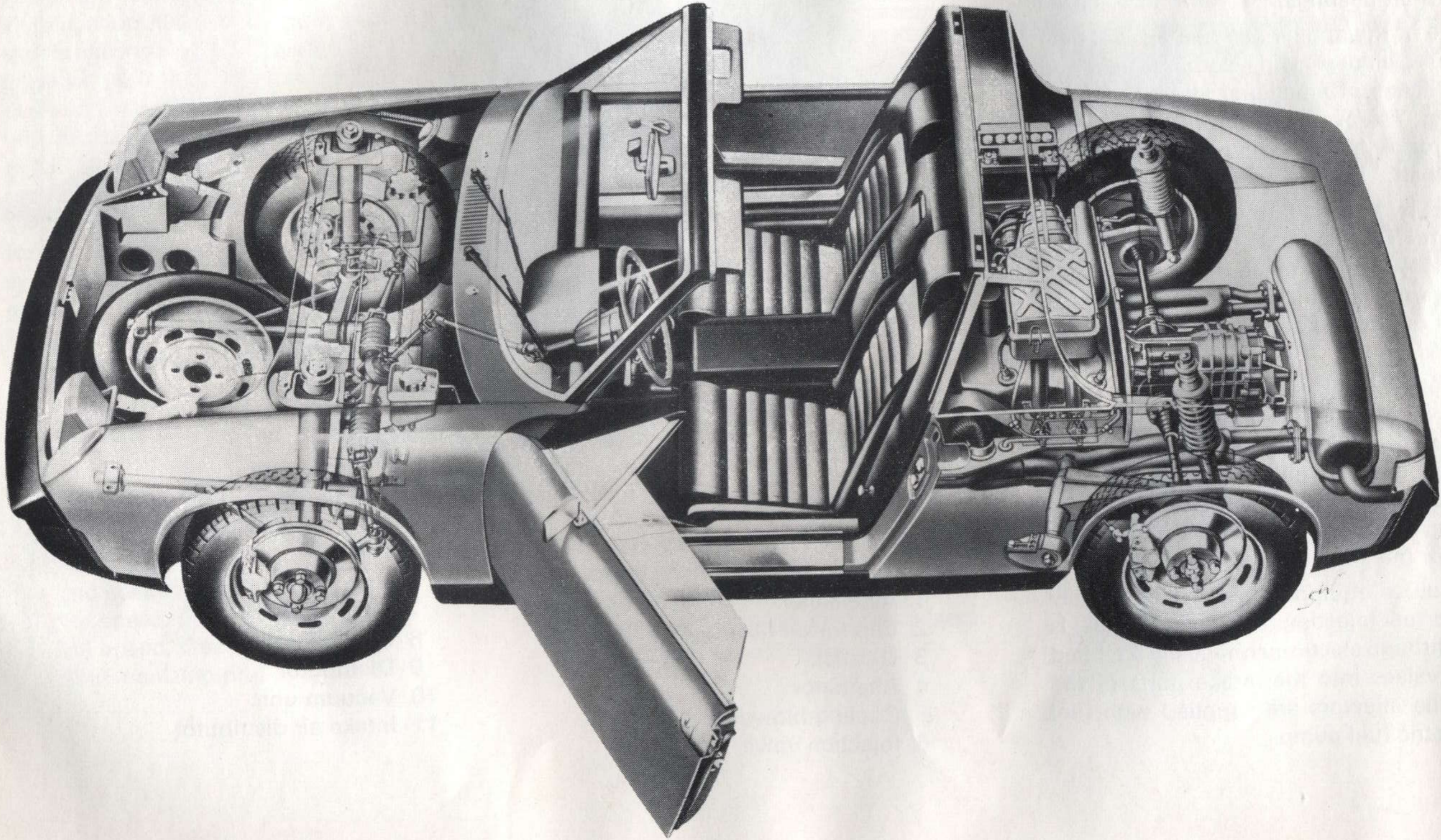
GENERAL
DESCRIPTION

Basic Design

The position of the engine in the middle of the car is the special individual characteristic of the 914. This design offers the basic requirements for optimal roadability.

Ideal weight distribution.
Little change in axle load regardless of load distribution.
Low center of gravity.

The front and rear wheel suspension, the brakes, the steering and also the bucket seats are carefully designed. A roll bar is installed in the rear roof section.



Engine

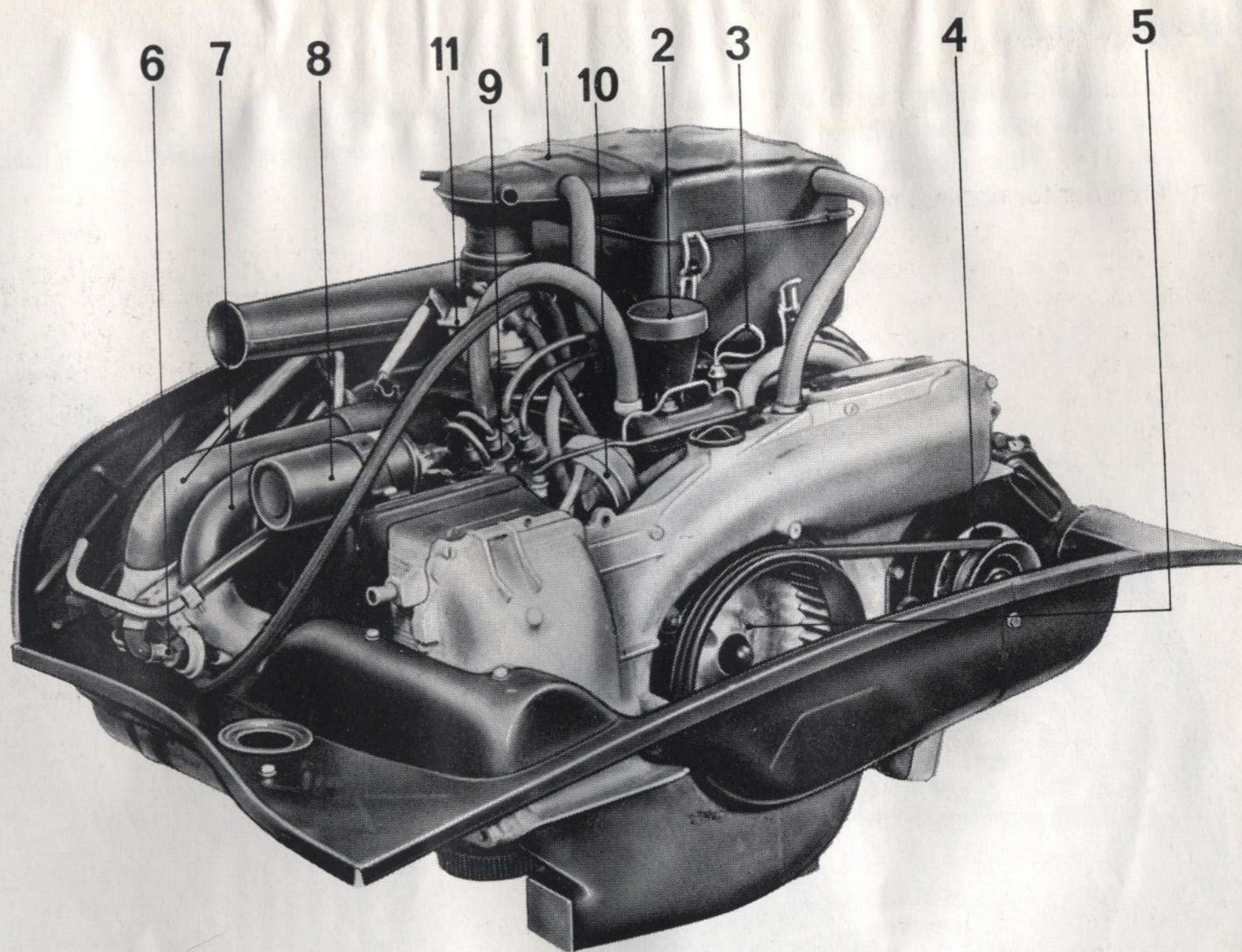
The engine is an air cooled, four cylinder, four stroke horizontally opposed type. The crankcase is divided vertically by the crankshaft and camshaft bearings.

Each side of the engine has two special gray cast iron cylinders with cooling fins and cylinder heads of aluminum alloy, bolted to the casing. The overhead valves are actuated through rocker arms, and pushrods by a central camshaft.

Cooling is by a radial blower mounted to the crankshaft. The amount of cooling air is regulated by a thermostat, so that the cold engine warms up quickly and the operating temperature remains as constant as possible at all times.

Lubrication for all required points in the engine is by pressure oil circulation. The gear type pump is driven by the camshaft. The oil cooler built into this circuit assures that the oil maintains its lubricating qualities even when the outside temperature or the effort required of the engine is very high.

The engine is equipped with electronically controlled fuel injection, by which the fuel is injected through electromagnetically operated injection valves into the intake ports of the engine. The injectors are supplied with fuel by an electric fuel pump.

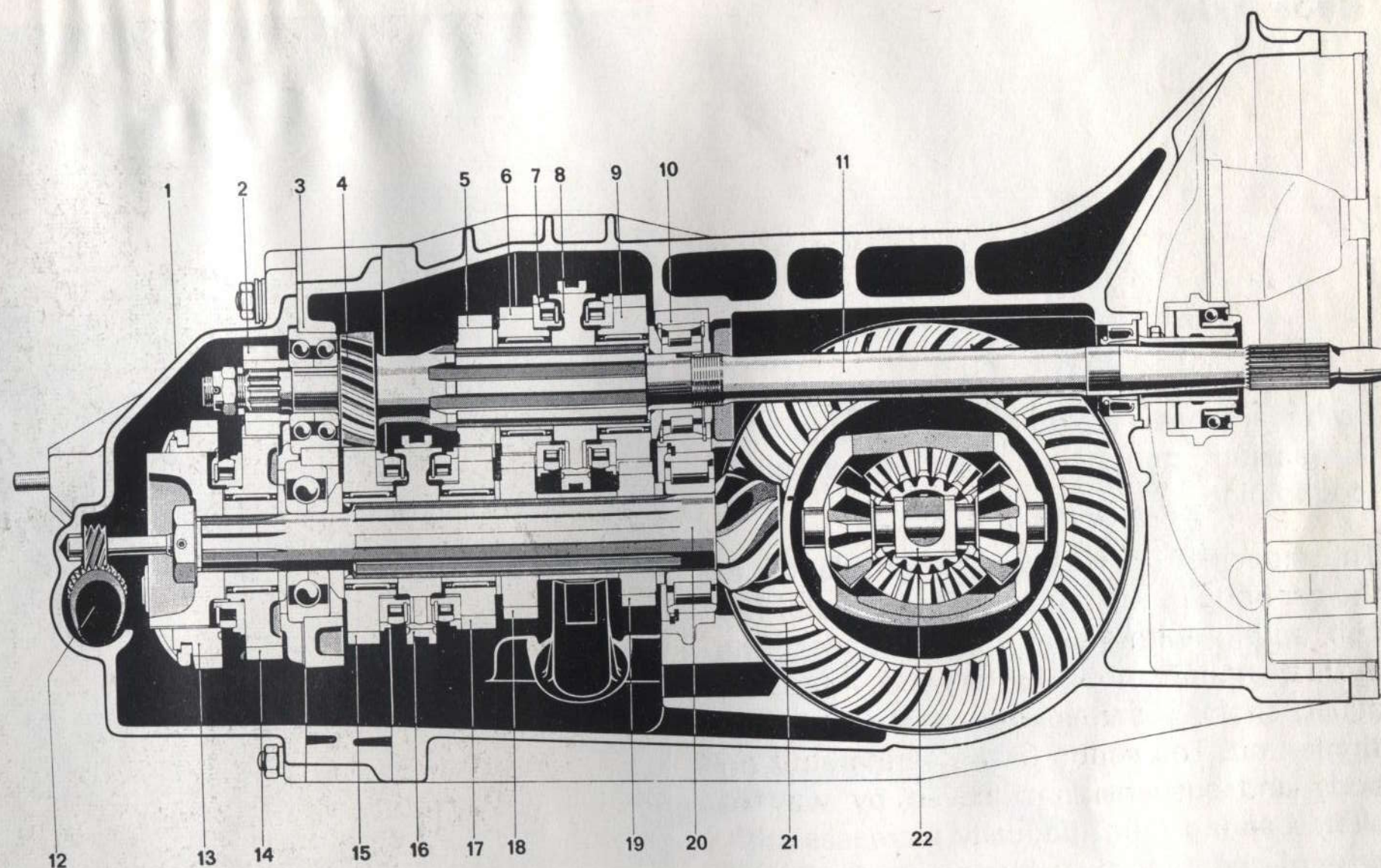


- 1 Air cleaner
- 2 Cap for oil filler neck
- 3 Dipstick
- 4 Alternator
- 5 Cooling blower
- 6 Injection valve

- 7 Intake
- 8 Ignition coil
- 9 Distributor
- 10 Vacuum unit
- 11 Intake air distributor

Transmission

The 914 comes with a 5 speed manual transmission. The transmission and differential are contained in a single housing. All forward gears are synchronized. When gears are shifted, a toothed sliding sleeve moves off the synchronizing ring running with the previously engaged gear, passes through the neutral position, and slides onto the synchronizing ring of the selected gear. The servo components provide an additional thrust to the synchronizing elements. This permits rapid synchronization of the differing gear speeds for easy and fast shifting. Once the gears are synchronized, the toothed sliding sleeve engages the synchronizing drive ring thus making a positive mechanical connection between the selected gear and the pinion shaft



1. Transmission rear cover
2. 1st speed, Gear 1, fixed
3. Roller bearing
4. 2nd speed, Gear 1, fixed
5. 3rd speed, Gear 1, fixed
6. 4th speed, Gear 1, free
7. Synchronizing ring

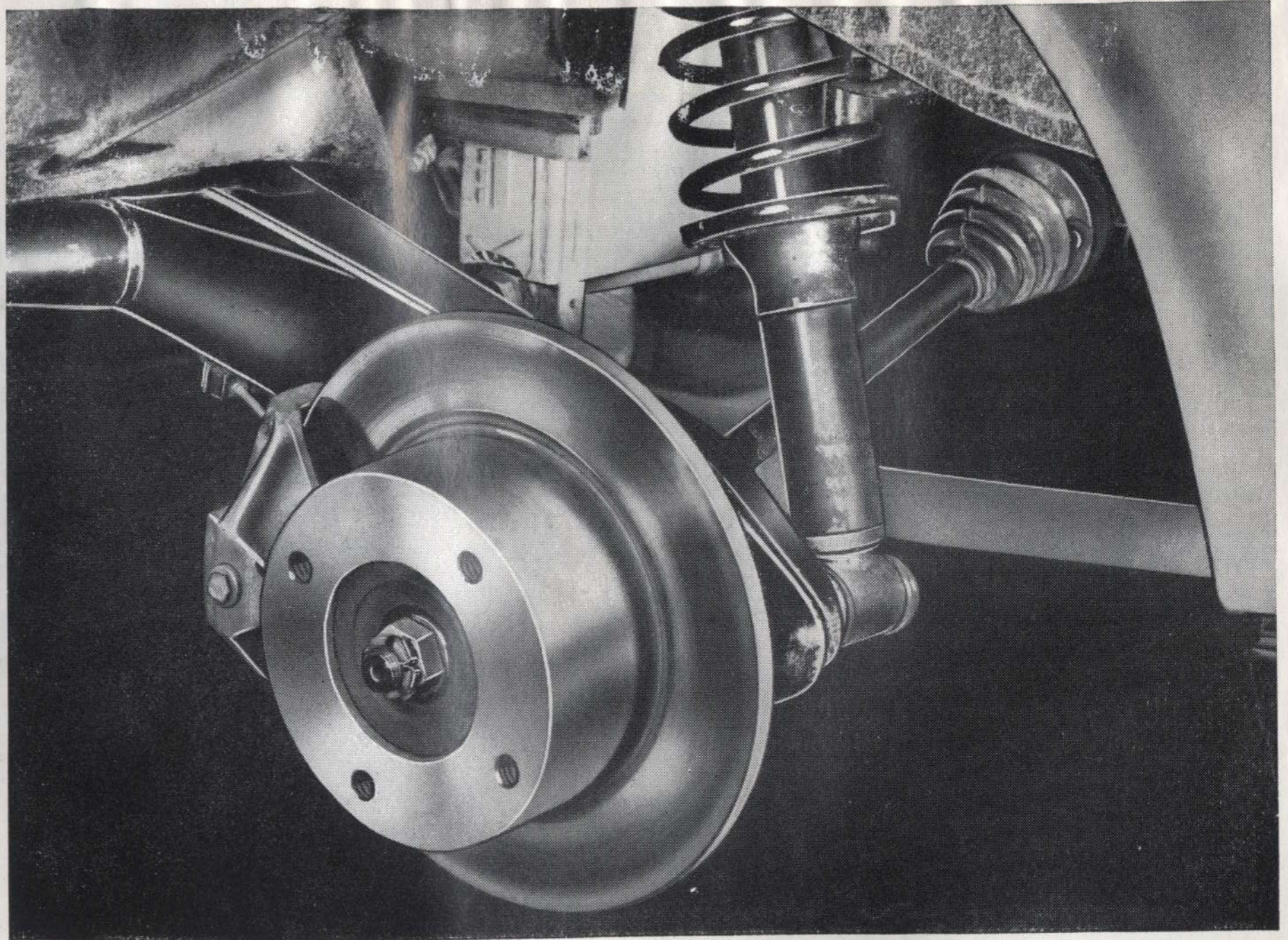
8. Spider
9. 5th speed, Gear 1, free
10. Roller bearing
11. Input shaft
12. Speedometer drive
13. Sliding gear, 1st and reverse speeds
14. 1st speed, Gear 2, free

15. 2nd speed, Gear 2, free
16. Shift fork
17. 3rd speed, Gear 2, free
18. 4th speed, Gear 2, fixed
19. 5th speed, Gear 2, fixed
20. Pinion shaft
21. Ring gear
22. Differential

Rear Axle

Both rear wheels are guided by a triangulated suspension geometry, ensuring excellent roadholding.

The movement of the wheels in relation to the car body is absorbed by spring struts. The coil spring with linear characteristics, the auxiliary hollow rubber buffers and the double acting shock absorbers are constructed as a single unit. The action of the spring strut on body and suspension achieved by way of altered spring ratio gradually increases stiffness of springing over bumpy roads. Power is transmitted from the engine to the wheels by drive shafts with double constant velocity joints.

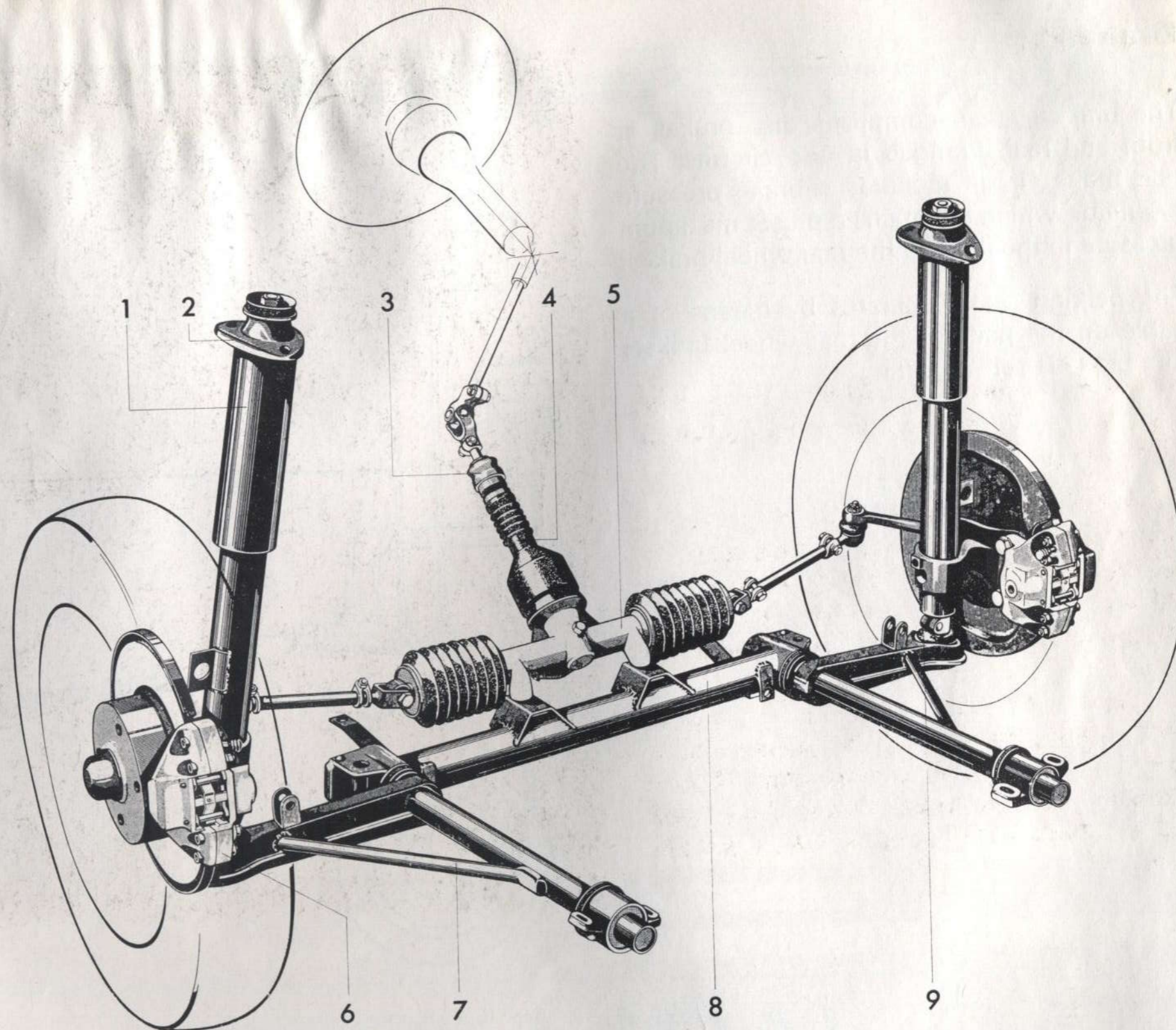


Front Axle

The front wheels have independent suspension. They are located by track control arms and suspension struts. The design saves space by placing the components of the axle in the wheel well and under the luggage compartment floor.

A wide, roomy luggage space is thus achieved in spite of relatively low total height. The transverse control arms are on the body-shell floor and transmit the spring action of the lengthwise torsion bars through the suspension struts to the wheels. The struts are connected at the lower end with the transverse control arms by means of ball joints, and at the upper end to the wheel well by means of rubber-metal joints.

All joints are maintenance free.



Steering

The steering uses a rack and pinion assembly with two tie rods. The safety steering column is in three parts connected by universal joints.

The steering wheel is well padded and provides, together with the steering column, maximum safety for the driver.

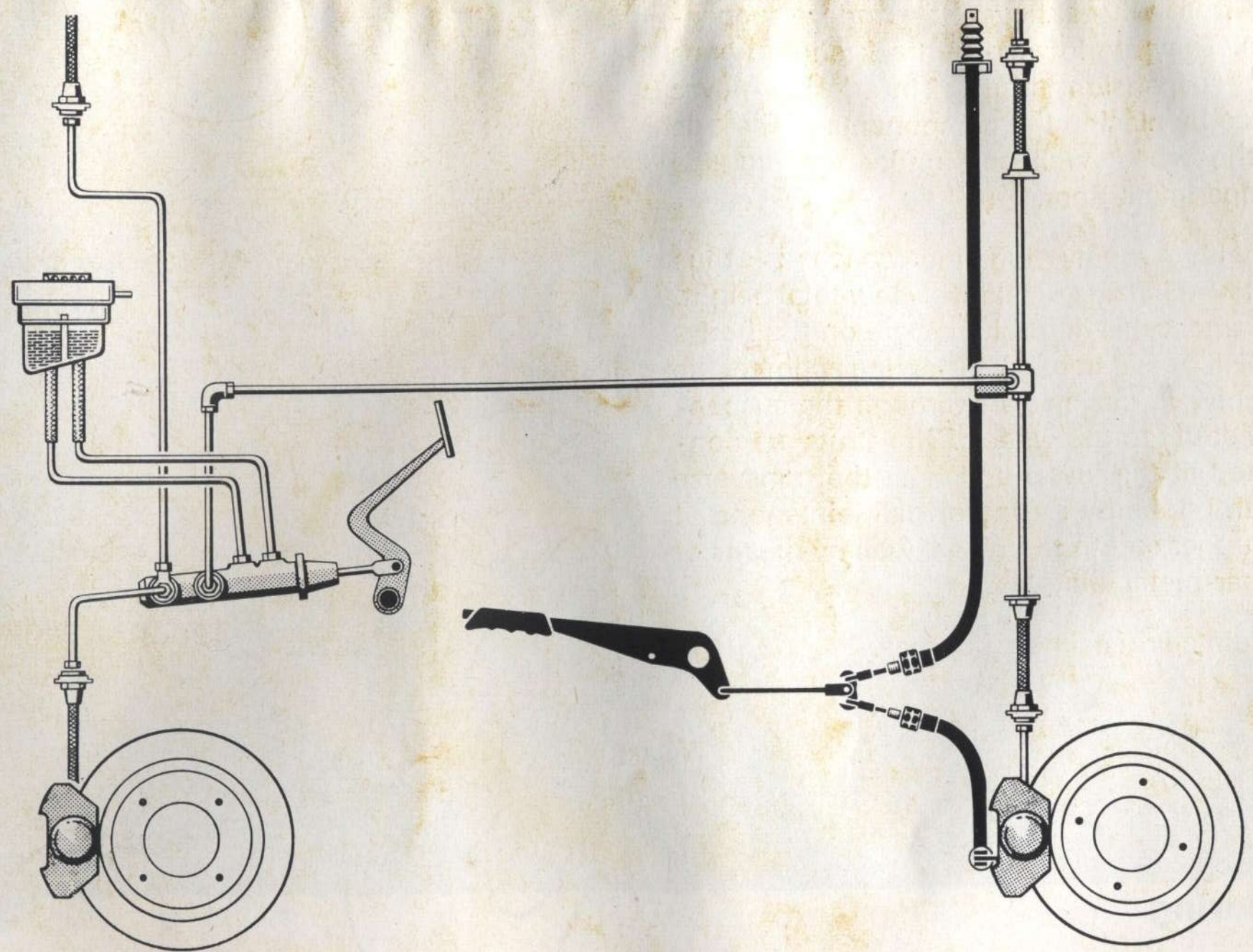
1. Shock absorber
2. Mounting
3. Steering shaft mounting
4. Steering
5. Rack and pinion steering gear

6. Brake calliper
7. Track control arm
8. Auxiliary support
9. Ball joint

Brakes

The brake system comprises disc brakes at front and rear arranged in two circuits. The rear brake circuit includes a brake pressure regulator, which maintains a preset maximum pressure in the lines to the rear wheel brakes.

The parking brake operates by means of a cable on the pads of the rear wheel brakes. The brake is self-adjusting.



PORSCHE

914 1.7/2.0

TECHNICAL DATA

MODEL '73

Engine

Number of cylinders

Bore

Stroke

Displacement

Compression ratio

Maximum torque (SAE net) 95.2 lb. ft. (129 Nm) at 2700 rpm
(Calif.: 86.8 lb. ft. [118 Nm] at 2700 rpm)

Horsepower rating (SAE net) 76 HP (57 KW) at 4900 rpm
(Calif.: 69 HP [51.5 KW] at 5000 rpm)

Type 1.7

4

3.54 in. (90 mm)

2.60 in. (66 mm)

102.3 cu. in. (1679 cc)

8.2 : 1 (Calif.: 7.3 : 1)

Type 2.0

4

3.70 in. (94 mm)

2.80 in. (71 mm)

120.3 cu. in. (1971 cc)

7.6 : 1

105 lb. ft. (142 Nm) at 3500 rpm

91 HP (68 KW) at 4900 rpm

Design of Engine

Layout

Operating cycle

Cooling

Lubrication

Cylinders

Cylinder heads

Valve operation

Camshaft drive

Crankshaft

Connecting rod bearings

Fuel supply

Fuel injection

4 cylinders, horizontally opposed

4-stroke gasoline engine

Air cooled

Pressure oil circulation

Gray cast iron

Light alloy

OHV

By 2 gear pinions

Forged, 4 main bearings

Plain, three layer

1 electrical fuel pump

Electronic

Electrical System

Operating voltage	12 volts
Battery capacity	45 Ah
Alternator output	50 amps at 14 volts AC, 700 watts capacity
Ignition type	Battery
Firing order	1 – 4 – 3 – 2
Ignition timing	27° BTC 3500 rpm (vacuum control disconnected)
Spark plugs	Beru 175/14/3 Bosch W 175 T 2, Bosch W 225 T 2*, - or equivalent. * To be used in vehicles driven at high speed for long periods in areas where the average temperature is above 77 degree F (25 degree C).
Spark plug gap	0.028 in. (0,7mm)

Power Train (5-speed-transmission)

Clutch	Single plate dry disc
Transmission	Porsche, servo – lock synchronization
Number of gears	5 forward, 1 reverse
Gearshift location	Floor-mounted, central
Final-drive	Spiral bevel pinion and differential
Final drive ratio	7 : 31 (4.429)
Rear axle drive	Double joint half axles
Gear ratios	Refer to transmission diagram (page 82)

Chassis, Suspension

Frame
Front suspension
Front springs
Rear suspension
Rear springs

Foot brake
Parking brake
Effective brake disc diameter
Total effective friction area

Rims

Tires

Tire pressures

Steering
Steering ratio (variable)
Camber angle (curb weight)
Toe (curb weight, added weight 33 lbs.)
Caster angle (curb weight)

Welded pressed steel box section frame, unitized
Independent suspension struts and transverse track control arm
Torsion bar for each wheel
Independent, with longitudinal control arms
Coil spring, double acting telescopic shock absorber and progressive rate hollow rubber spring for each wheel
Dual circuit, hydraulic disc brakes at all wheels, pressure regulator in rear wheel circuit
Operates mechanically on rear pads of foot brake system
Front 9.13 in. (232 mm), rear 9.45 in. (240 mm).
27.9 sq. in. (180 cm²)

1.7

4¹/₂ J × 15 (steel)
optional:
5¹/₂ J × 15 (steel or light alloy)
155 SR 15 on 4¹/₂ J × 15 rim
optional:
165 SR 15 on 5¹/₂ J × 15 (steel or light alloy rims)

Normal tire pressure: Front – 26 psi (1,8 atm)
Rear – 29 psi (2,0 atm)
Snow tire pressure: Front – 29 psi (2,0 atm)
Rear – 32 psi (2,2 atm)

Rack and pinion
1 : 17.78
Front 0° ± 20'; rear —30' ± 20'
Front + 20' ± 10'; rear 0° + 15'
6° ± 30'

2.0

5¹/₂ J × 15 (steel or light alloy)

165 HR 15

Filling Capacities

Engine	Approx 3.7 US qts (3.0 Imp. qts) without oil filter 3.2 US qts (2.6 Imp. qts) premium quality HD oil, acc. to API specification SD or SE (or combination). SAE 30 = above 32° F (0° C) SAE 20 W 20 = from + 5° F to 32° F (—15° C to 0° C) SAE 10 W = below + 5° F (—15° C)
Transmission and differential	Approx 2.6 US qts (2.1 Imp. qts) "SAE transmission oil MIL -L- 2105 B or MIL -L- 2105", SAE 90
Fuel tank	16.4 US gals (13.65 Imp. gals) including approx 1.6 US gals (1.3 Imp. gals) reserve
Brake fluid	Approx. 12 fl. oz. according to SAE recommendation J 1703 and conforming to Federal Safety Standard No. 116.
Windshield washer system	Approx. 5.3 US pints (4.4 Imp. pints).

Performance

Type 1.7

Type 2.0

Maximum speed

Approx. 110 mph (175 km/h)
(Calif.: Approx. 106 mph (170 km/h))

Approx. 115 mph (185 km/h)

Engine oil consumption

0.5–1.0 US qts per 600 miles
(0.4-0.8 Imp. qts per 600 miles)

Weights

Unladen weight

2139 lbs (970 kp)

Maximum payload

550 lbs (250 kp)

Total permissible weight

2690 lbs (1220 kp)

Maximum axle load front*

1433 lbs (650 kp)

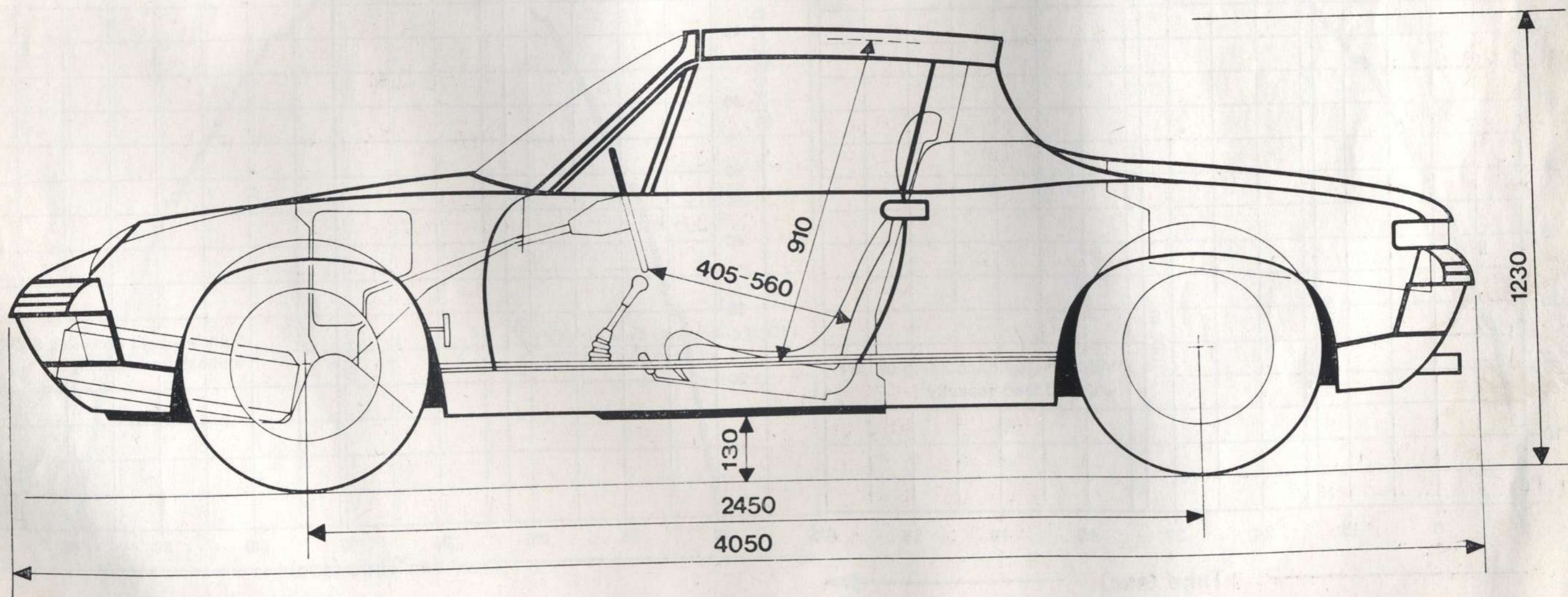
rear*

1433 lbs (650 kp)

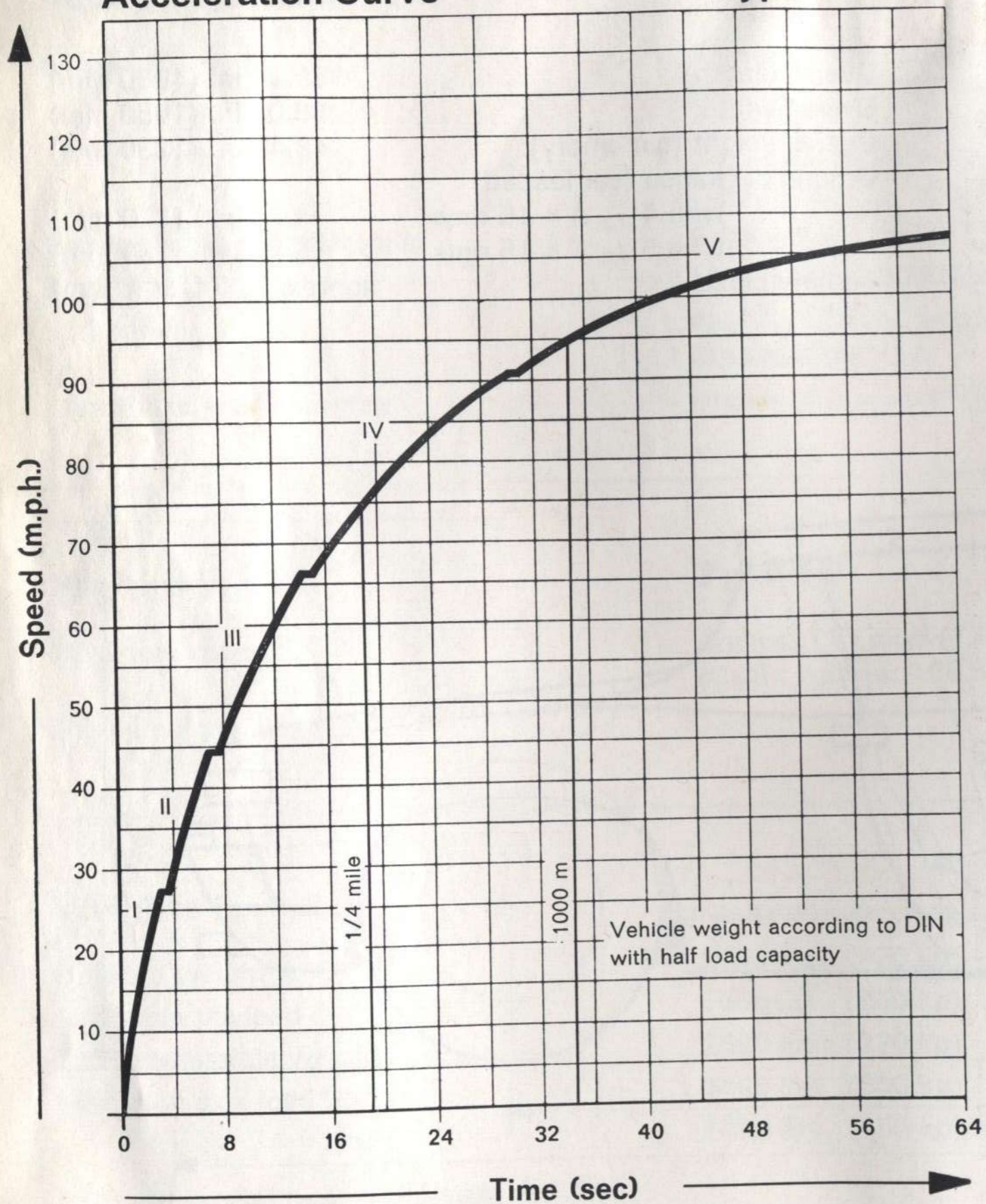
* Do not exceed total permissible weight.

Dimensions

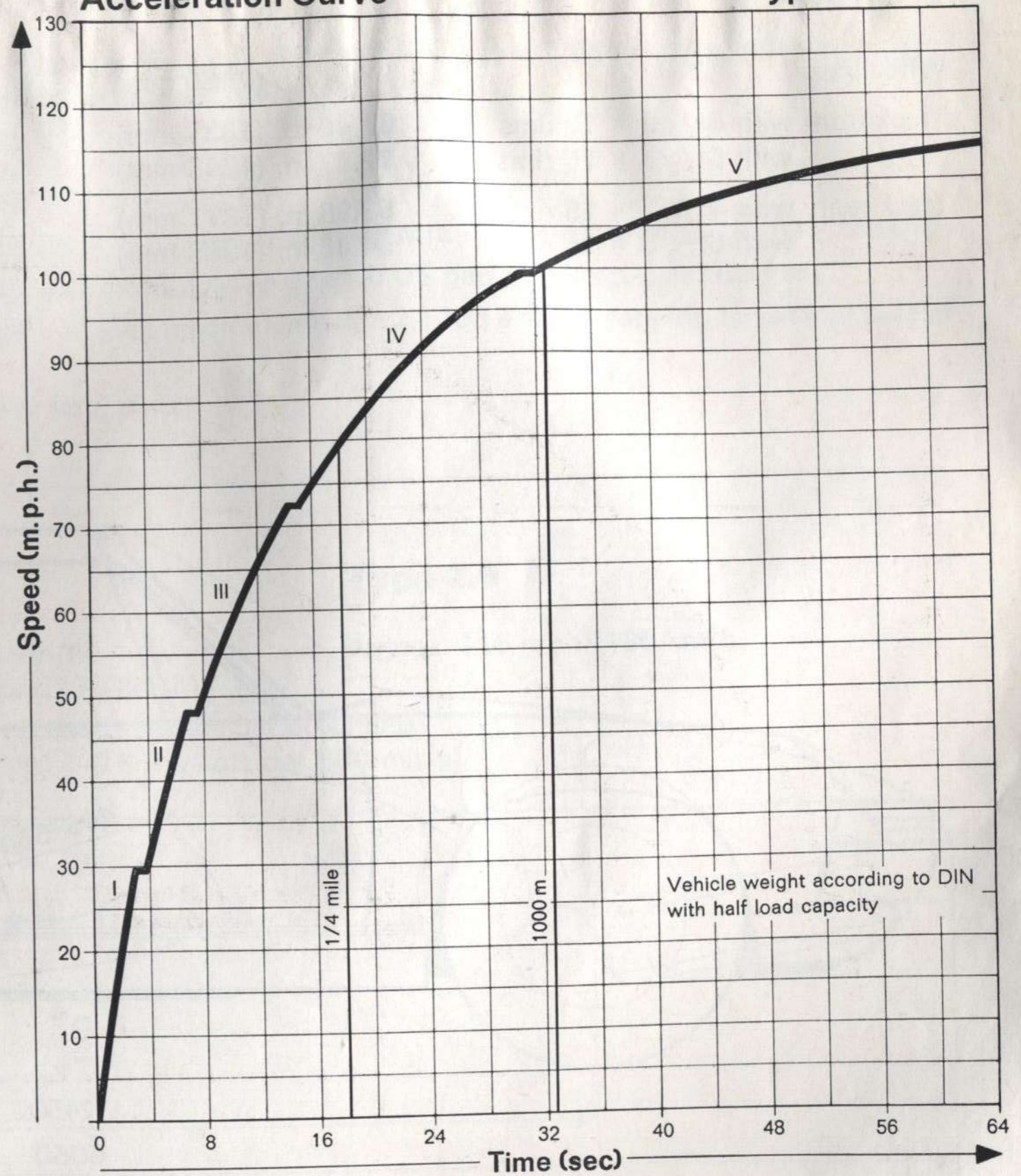
Wheelbase	96.5 in. (2450 mm)	Overall length	159.4 in. (4050 mm)
Track front with 4 $\frac{1}{2}$ J \times 15 rims	52.40 in. (1331 mm)	Overall width	65.0 in. (1650 mm)
with 5 $\frac{1}{2}$ J \times 15 rims	52.87 in. (1343 mm)	Overall height (car empty)	48.4 in. (1230 mm)
Track rear with 4 $\frac{1}{2}$ J \times 15 rims	53.98 in. (1371 mm)	Ground clearance (car loaded)	
with 5 $\frac{1}{2}$ J \times 15 rims	54.45 in. (1383 mm)	with 4 $\frac{1}{2}$ J \times 15 rims	4.7 in. (120 mm)
		with 5 $\frac{1}{2}$ J \times 15 rims	5.12 in. (130 mm)
		Turning circle	approx. 33.5 feet (11 m)



Acceleration Curve Type 914 - 1.7

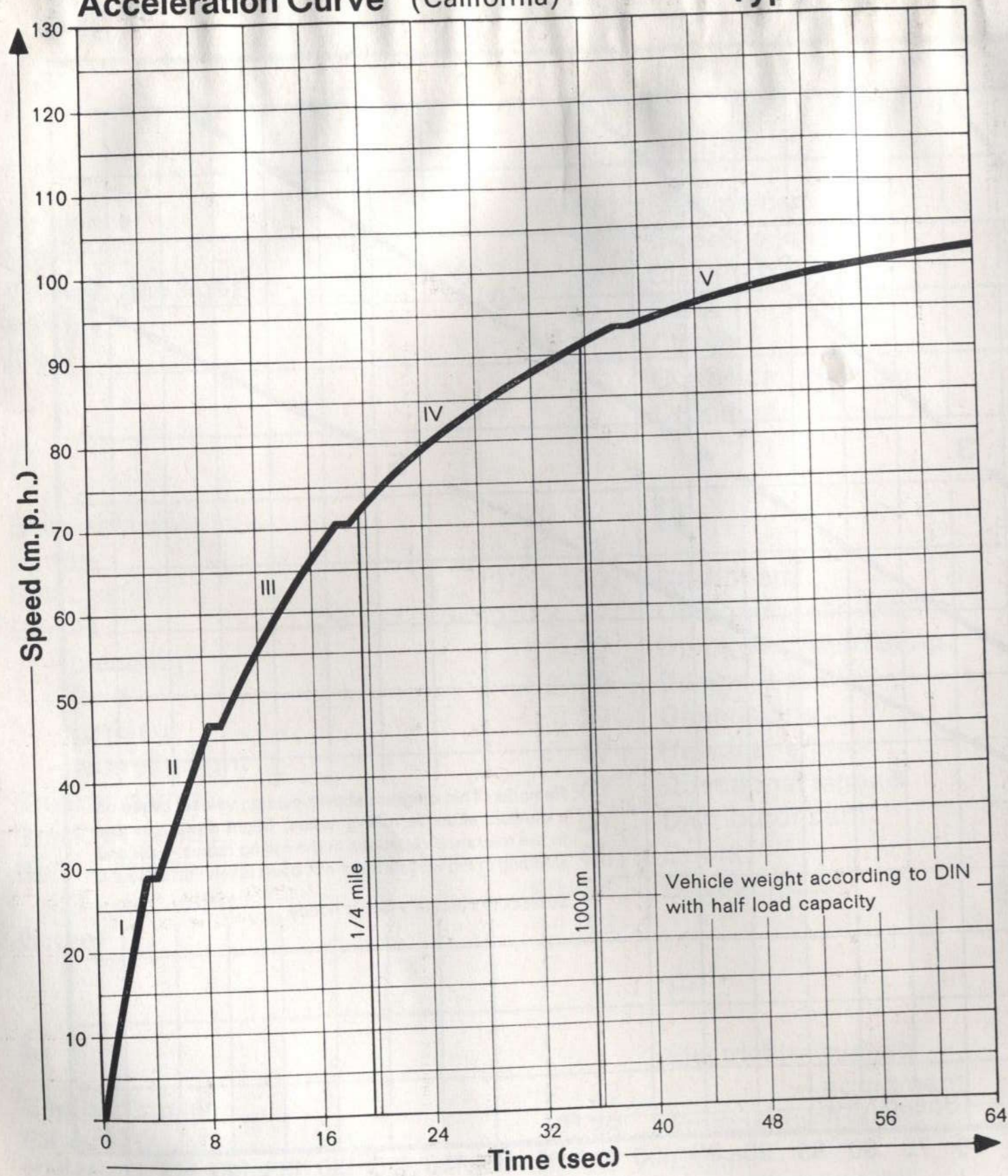


Acceleration Curve Type 914 - 2.0



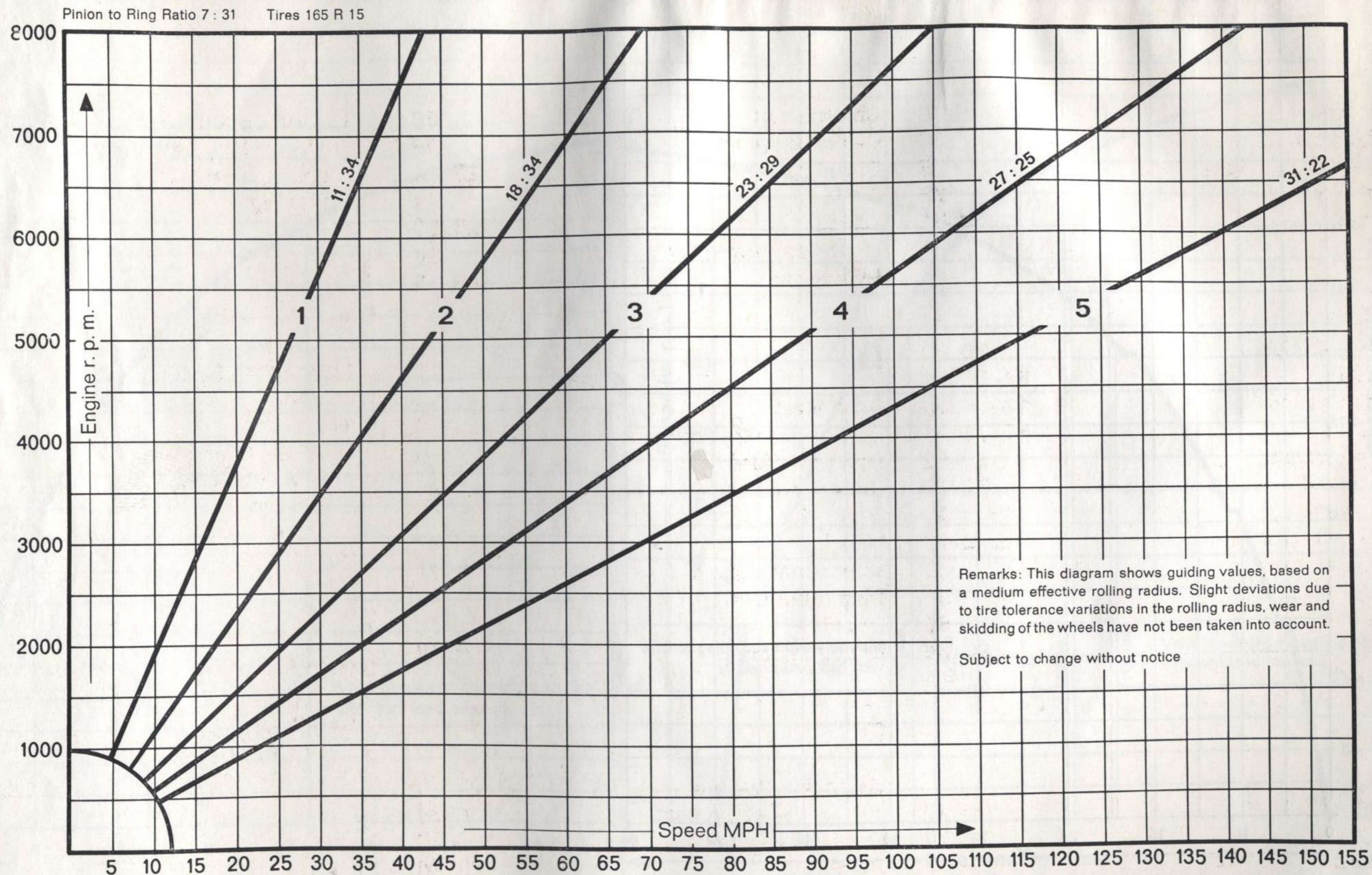
Acceleration Curve (California)

Type 914 - 1.7



Transmission Diagram

914



Index

A

Air cleaner 49
Alternator 76
– warning light 18
Ashtray 22
Axle 70–71

B

Back-up lights 26, 62
Battery 34, 58, 76
Belts, safety 13–14, 39
Brakes 26–27, 50–52, 72, 77
– bleeding 51–52
– fluid 52, 78
– parking 27
– warning light 17
Breaker points 47
Break-in period 51
Bulb – chart 60
– replacing 60–36
Buzzer 12

C

Camber/caster 77
Capacities 78
Changing a wheel 56–57
Chassis number 10

Chrome care 38
Cigarette lighter 22
Cleaning 37–39
Clock 19
Clutch 26, 53
Corrosion prevention 34
Cylinders 46, 75

D

Dashboard 16
Defogger, rear window 22
Defogging/defrosting 29
Design, basic 67
Dimensions 79
Dipstick 40
Directional signals 18, 21
Distributor cam 42
Doors 12
Driving hints 9, 26

E

Electrical – system 58–63, 76
– equipment 34
Emergency flasher 20
Engine 68, 75
– compartment 25

Engine number 11
– oil checking and change 38–39
– speed, maximum 26
– starting 15

F

Fan 29, 30
Firing order 76
Flasher, emergency 20
Fog lights 20
Fuel – gauge 17
– injection, electronic 68
– octane rating 25
– pump 68
– tank 24
Fuses 59

G

Gasoline 24
Gear ratios 82
Gearshifting 26
Glove compartment 16

H

Hazard flasher 20
Headlights 20, 60, 61

Headlight – dimmer lever	21
Heater	30–31
High beam indicator light	18, 20
Hood – front	24
– rear	25
Horn	16

I

Identification plate	10–11
Ignition	15
– timing	48
Instrument – lights	20
– panel	16
Interior light	22, 62

J

Jack	55
------	----

K

Keys	12
------	----

L

Lane changer	21
Leatherette	38
License plate lights	20
Lights	20
Locks	12, 15, 25, 34
Lubrication	38–42
Luggage compartments	24, 25

M

Manual operation of pop-up lights	60
Mirror, rear view	23

N

Neutral	26
---------	----

O

Octane rating	24
Odometer	18
Oil – change (transmission)	42
– checking and change (engine)	40–41
– grades	78
– pressure warning light	18
– temperature gauge	19

P

Paint	37
– number	11
Parking – brake	27
– light	18, 20, 62
Performance	78
Polishing	38
Power train	76

R

Rear view mirror	23
Rear window defogger	22
Reverse	26
Roof	32–33

S

Safe driving hints	9
Safety – belts	13–14, 39
– compliance sticker	10
Sealed beam headlights	60, 61
Seats	13
Serial number	10
Shifting gears	26
Side marker lights	20, 62
Spare wheel	56
Spark plugs	45, 76
Specifications	75–82
– axle	77
– brakes	77
– capacities	78
– chassis (gen. specs).	77
– dimensions	79
– electrical system	76
– engine	75
– final drive	76
– gear ratios	82
– octane rating	25
– oil	78
– performance	78
– power train	76
– suspension	77
– tires	77
– transmission	26, 82
– weights	76
Speedometer	18
Speed ranges	26
Spot removing	38
Starting	15
Steering	71, 77
Stop lights	62

Sun visor 23
Suspension 70, 71, 77

T

Tachometer 18
Tail lights 20
Technical data, see specs. 75-82
Timing, ignition 48
Tires 56-57, 77
Toe 54, 77
Tool kit 55
Top, removable 32-33
Torque of wheels 57
Towing 33
Transmission 69, 76, 82
 - oil change 42
Trip odometer 16, 18
Trunk 25
Turn signals 18, 21, 62

U

Undercoating, protective 39
Upholstery 38

V

Valves 46-47
Vehicle identification 10-11
Ventilation 29
Voltmeter 19

W

Warning lights 17-18
Washer reservoir 28
Washing 37-39
Waxing 37
Weatherstrips 39
Weights 78
Wheel - balancing 55
 - changing 56-57
Windows 39
Windshield - washer system 28
 - wipers/washer 21
Winter operation 34, 55

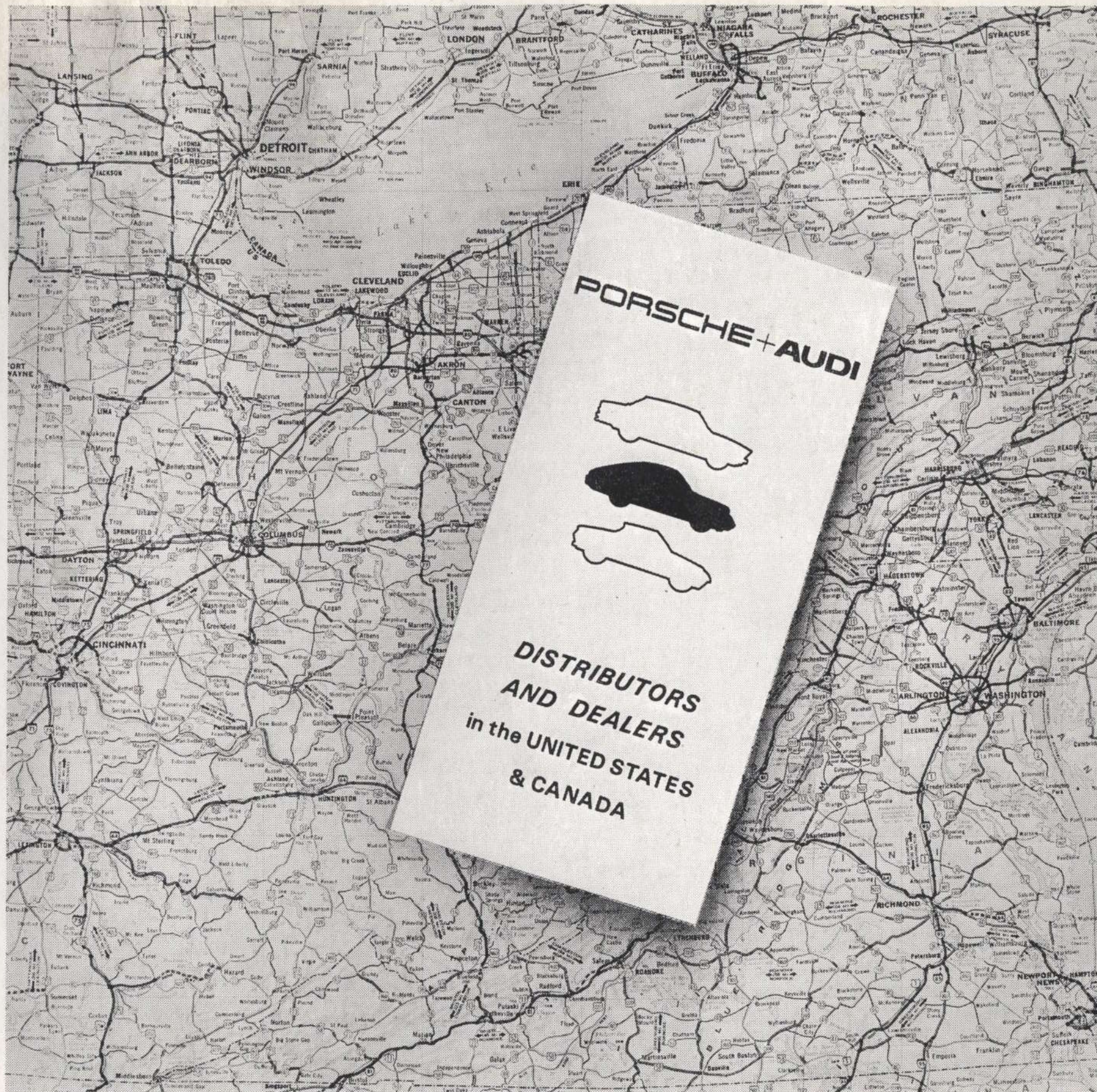
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All authorized Porsche dealers in the United States and Canada are ready to serve you. Their addresses and telephone numbers are compiled in a booklet which is available at your Porsche dealer.

Anyone of these dealers is well equipped to help you with virtually all Porsche-related matters; and your dealer should be your primary source.

Should there be an occasion where you need further assistance, you may want to contact your area distributor or zone office. We have listed their addresses and telephone numbers on the other side of this card.

However, remember that ultimately your questions will be resolved in the dealership with dealer personnel and dealer equipment. We therefore suggest you contact your dealer first.



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