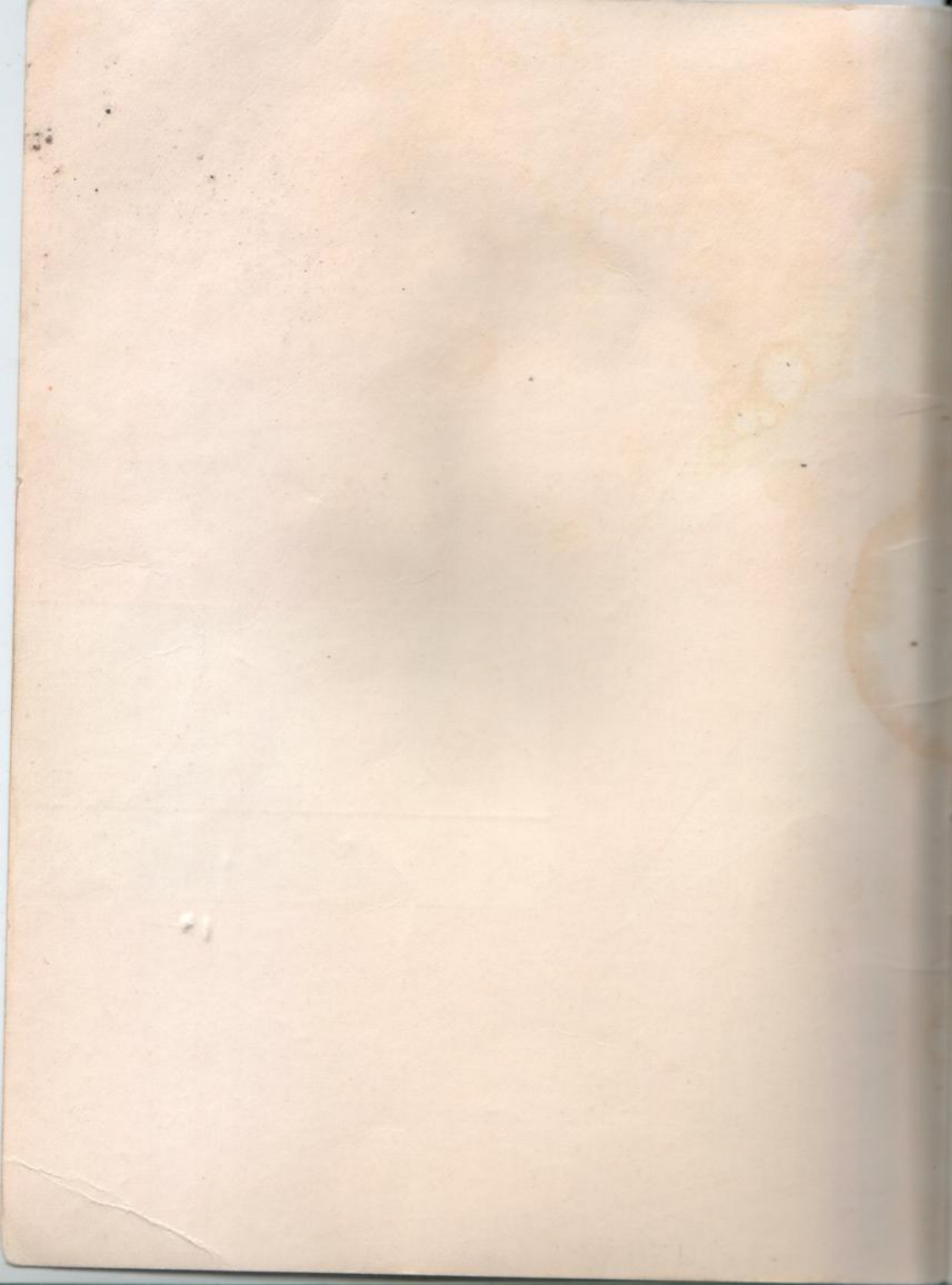


D S 1 9

C I T R O Ë N

I N S T R U C T I O N B O O K



INSTRUCTION BOOK

for the

DS 19



CITROËN CARS CORPORATION

NEW YORK

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FOREWORD

The Citroën DS 19 is the result of many years of experimental and development work devoted to the design of a vehicle which would possess outstanding qualities of safety, comfort and ease of driving.

Certain simple differences in driving technique are required in order to secure the maximum benefit from the outstanding merits of this car. We strongly recommend careful reading of the following pages before taking the car on the road.

Our Service Department is at the disposal of owners for further information and advice if required. Address your enquiries to :

The Service Manager,

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NOTE : All reference in this book to position, i.e. right hand or left hand are as seen from the driver's seat.

BREAKING IN

During the first 300 miles do not exceed the following speeds :—

- 12 m.p.h. in 1st gear
- 28 m.p.h. in 2nd gear
- 44 m.p.h. in 3rd gear
- 62 m.p.h. in 4th gear

Drive with care from 300 miles to 1,250 miles.

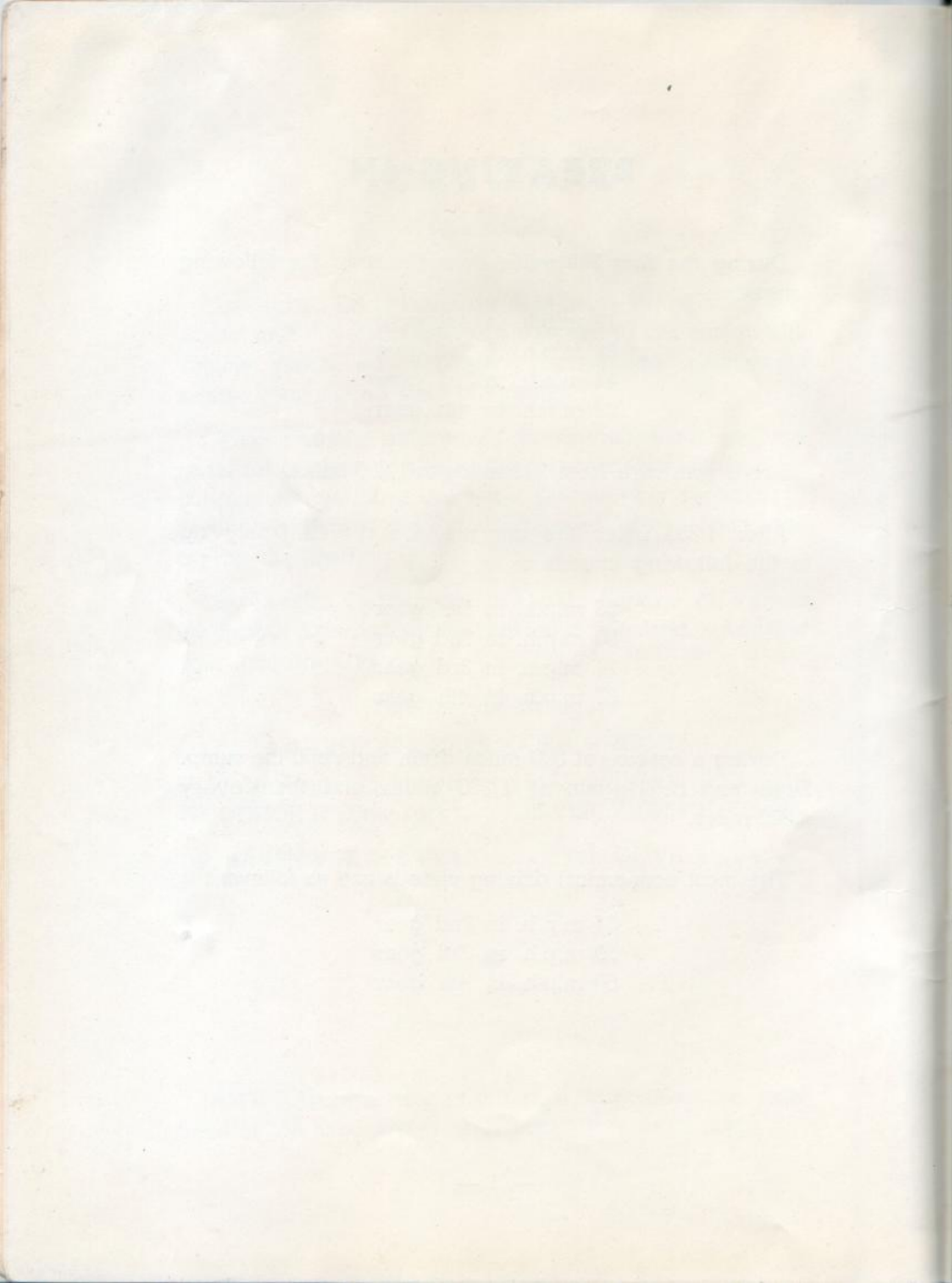
After 1,250 miles the car may be driven freely up to the following speeds :

- 25 m.p.h. in 1st gear
- 50 m.p.h. in 2nd gear
- 71 m.p.h. in 3rd gear
- 87 m.p.h. in 4th gear

During a service at 300 miles drain and refill the sump. Drain and refill again at 1,250 miles and then every 2,500 miles.

The most economical driving speeds are as follows :

- 34 m.p.h. in 2nd gear
- 50 m.p.h. in 3rd gear
- 68 m.p.h. in 4th gear



DRIVING

Points to be checked before starting.

To open the hood ;

Pull the ring of the hood lock release (fig. 1).

Release the first safety catch by passing the left hand through the opening in the bumper by the side of the license plate and pull the handle **1** (fig. 2); the hood will lift slightly.

Release the second safety catch by passing the right hand between the hood and the bumper on the other side of the license plate and push down the lever **2** (fig. 2). To hold the hood open engage the end of the stay (fig. 3) in the bracket situated in the front of the battery.

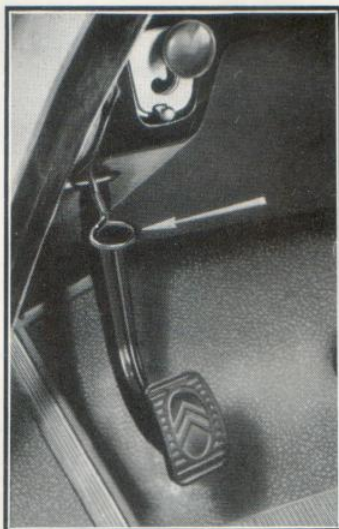


Figure 1

Ring for unlocking hood

Engine Oil : The dip stick is located on the left hand side of the engine behind the gas pump and below the carburettor. The oil should be level with, but not over the " maximum " mark. (The space between the minimum and maximum marks corresponds approximately to 1 3/4 pints.)

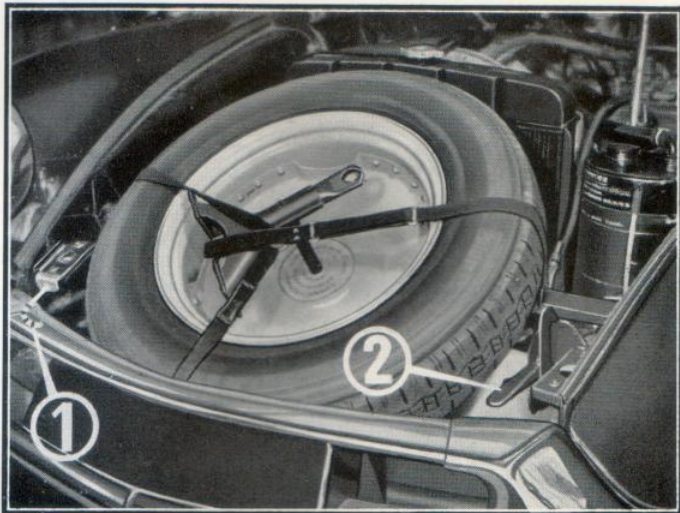


Figure 2 — Hood locks

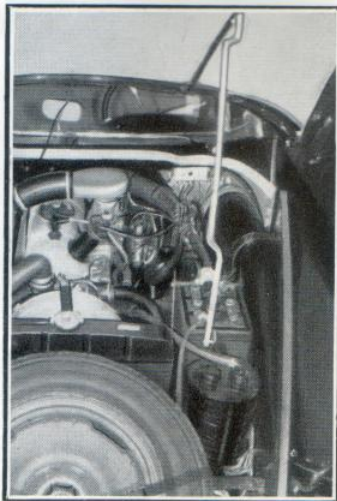


Figure 3
Hood stay

Water : The level should be 1 inch from the top edge of the neck. If you wish to check the water level when running take care when removing the cap as the radiator is slightly under pressure when the engine is warm.

Fluid for the hydraulic system : The level of the fluid in the reservoir situated to the left of the radiator and in front of the battery should be between the minimum and maximum marks (on the transparent gauge at B, fig. 4). To correctly read the level, start the engine and

leave it to idle while waiting for the car to become stabilised at its normal height.

When it is necessary to add fluid, use only heavy duty hydraulic brake fluid.

No other type should be used.

Starting.

Make sure that the gear shift **2** (fig. 5) is in the neutral position.

Turn on the ignition (key at **1**).

Set the manual control spark **3** in the center position or fully retarded (that is to say turn completely to the left).

When the engine is **cold**, pull the choke (S) **4** as far as possible and without touching the accelerator pedal.

When the engine is **warm**, do not use choke.

Push the gear shift lever **2** as far as possible to the left. In this position it operates the electric switch controlling the starter.

If the engine does not start at the first attempt wait 3 to 4 seconds and repeat the operation.

As soon as the engine starts, progressively push in the choke control and turn the manual spark control in the direction of the arrow, as far as possible.

As a general rule do not use the choke control more than necessary.



Figure 4

- A. — Filter for hydraulic fluid
- B. — Level

In cold weather let the engine run for a minute or two before starting off and press the main brake pedal **1** (fig. 6) to bring the motor to normal idling speed.

Make it also a general rule never to race the engine when it is cold.

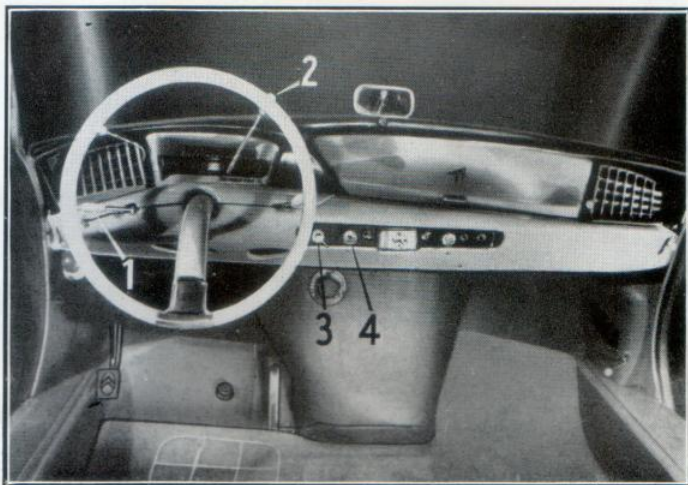


Figure 5

Ignition switch, choke, starter

Changing gear.

As the clutch is automatically controlled the car is not fitted with a clutch pedal.

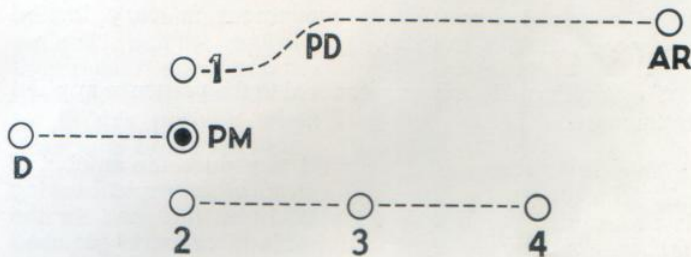
To change gear it is only necessary to move the gear shift **2** (fig. 5) opposite one of the marks.

1 - R }
2 - 3 - 4 } Indicated on the fascia panel.

The gear shift can be moved in several parallel planes as shown on the following diagram.

The positions for the 1st and reverse gears are on the plane furthest from the driver ; those for the 2nd, 3rd and 4th gears are on the nearest plane.

To move from 1st to reverse gear the lever must be pushed towards the windshield so as to pass the stop before moving it completely to the right.



Layout of gear changes

A neutral position separates the 1st and 2nd gear positions.

In addition to the visible indications on the dash board, ball catches (slight but can be felt), mark the different positions of the gear shift.

To upshift, release the accelerator completely. From 1st to 2nd wait to release the accelerator until the gear shift lever is in the "neutral" position.

To downshift, back off only slightly on the accelerator. To make a high speed downshift from 3rd to 2nd do not release the accelerator at all.

During this movement place the gear shift in the gear position required.

Allow a short period of delay before accelerating again.

Progressive foot pressure on the accelerator pedal will cause the car to move off smoothly; full instantaneous depression of the pedal will give rapid acceleration.

When stopped, never engage any gear if the choke is in operation as the fast idle will cause jerky clutch engagement.

Parking.

Maneuvering in traffic, in garages and in very congested areas often requires the driver to move the car with precision for very short distances either backwards or forwards.

You can do this with the greatest ease by using **the right foot** on the main brake pedal without touching the accelerator.

When the right foot is not on the brake or the accelerator the engine drives the car very slowly either forwards or backwards according to the gear engaged. The movement is stopped by lightly pushing on the main brake pedal and can be restarted by lifting the foot.

The car must be completely stopped before shifting from 1st to Reverse, or from Reverse to 1st gear.

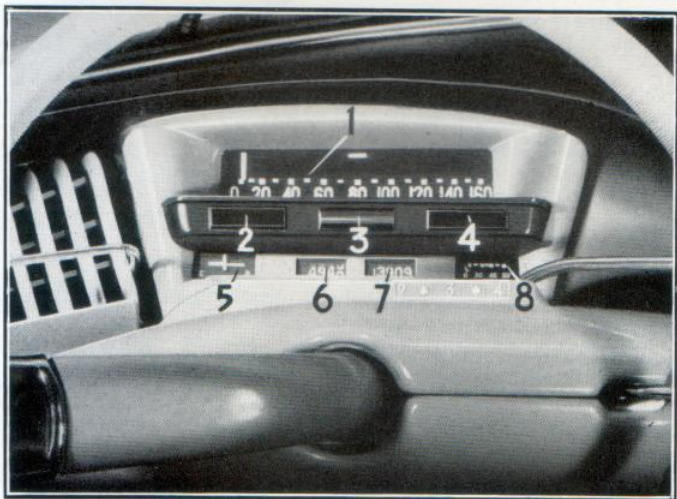


Figure 7
Instrument Panel

Dash Board (figs 7, 8 and 9).

The following controls and instruments are fitted on the dash board and instrument board :

I. — Figure 7 :

1. Speedometer.
2. Blue high beam warning light.
3. Red warning light for the main brake (see page 11).
4. Repeating green light for the directional signals.
5. Ammeter.
- 6 & 7. Mileage recorders, trip and total.
8. Gas gauge (operates when the ignition is " on ").

II. — Figure 20, Center Pages :

1. Ignition key.
2. Turn signal lever. Move it as far as possible towards the top for right turn and towards the bottom for left turn (fig. 8). The timing unit automatically stops the signal after sufficient period. Nevertheless you can stop the signal **before** the action of the timing unit by moving the control slightly. You can also immediately reverse the direction of the signals.

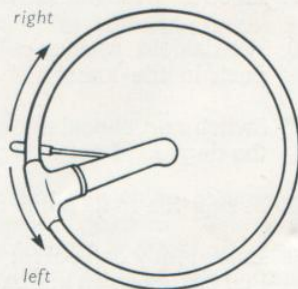


Figure 8

3. Speedometer.
4. Gear shift.

5. Horn, light and dimmer switch (single unit).

The horns are controlled by **pressing** on the knob.

- by **pressing lightly** the low note horn for town use is sounded.
- by pressing all the way both low and high horns are sounded.

The lights are controlled by **turning** the knob in one of the three following positions :

- O : off.
- V : parking lights (side and rear lights).
- R : headlights.

From the position V or R, the "dimmer" position can be obtained by moving the control away from the steering wheel.

6. Manual spark control.
7. Choke control (S).
8. Interior light switch (see page 34).
9. Electric windshield wiper switch.
10. Windshield washer control (L.G.). Pull (lightly) then push in the knob.
11. Switch and rheostat for defroster ; by turning the knob the degree of defrosting can be controlled.
12. Socket for map lamp or other 6 volt accessories.
13. Emergency control for the windshield wiper (by hand). Pull out the small knob under the dash as far as possible ; turn up the lever and move it from left to right and vice versa.

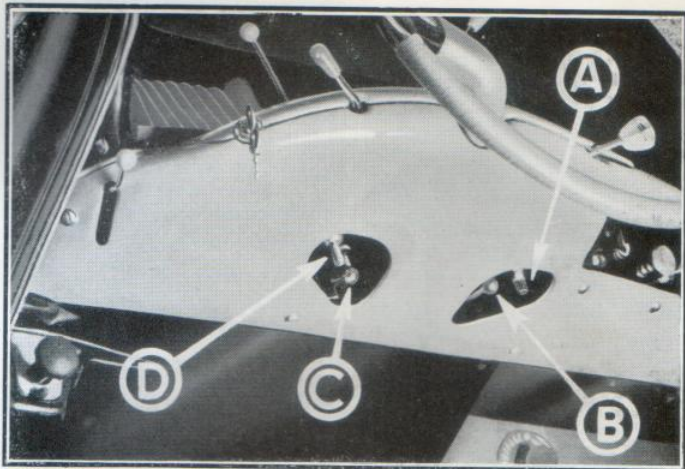


Figure 9

LH side of dash board (view from underneath)

III. — Figure 9 :

Four other controls are located in openings under the dash.

- A. Dash lights.
- B. Auxiliary clutch control.

When the engine is not running the clutch is automatically moved to the de-clutched position. The auxiliary control B cancels the automatic control and allows clutch engagement when the engine is stopped; push the lever B (fig. 9) forward then lock it in that position by pushing it towards the top. Thus in extremely cold weather the engine can be turned over with the crank.

- C. Winder for resetting the trip mileage recorder on the speedometer (push then turn).

safety lock (see page 10).

- Let the engine idle.
- Take out the tool kit and the spare wheel under the hood (fig. 2, page 6).
- If a rear wheel is to be changed, remove the fender; unscrew the nut (fig. 13) and pull the fender towards the rear (fig. 14). Then carry out the following operations in the order given;
- Push the lever **1** (fig. 11) as far as possible towards the top;

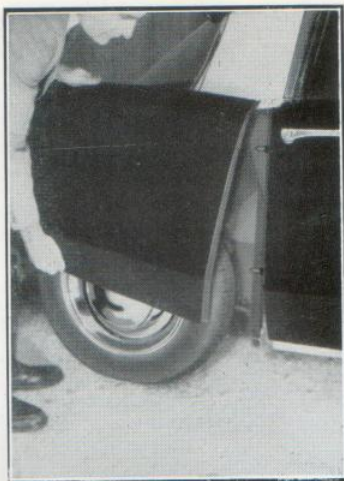


Figure 14

Removal of rear fender

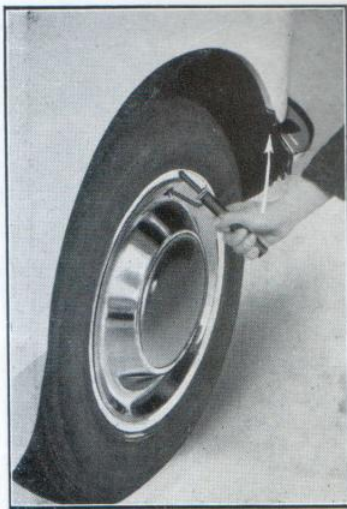


Figure 15

Removal of hub cap

the body will slowly rise.

- Remove the hub cap with the special tool (fig. 15).
- Loosen the lug nut using the long lever (fig. 16) as shown on fig. **17**. It is only used to loosen the nut not to unscrew it. (The lever is fitted under the hood against the front right hand fender).
- When the car is completely raised hook the eye of the stand (fig. 18) to the stud under the front door.

- In the top part of the stand there is a series of holes. Insert the plug (fig. 19) in the hole nearest to the base.
- Push the control lever as far down as possible (see figure 12) and wait while the wheels are raised.

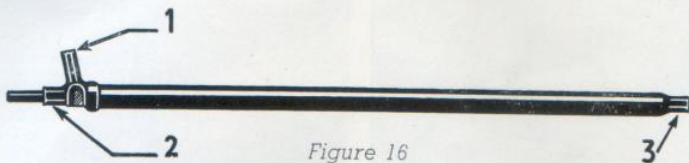


Figure 16

(The front and rear wheels on the side on which the stand is placed are raised simultaneously).

- Finish unscrewing the lug nut.
- Remove the wheel

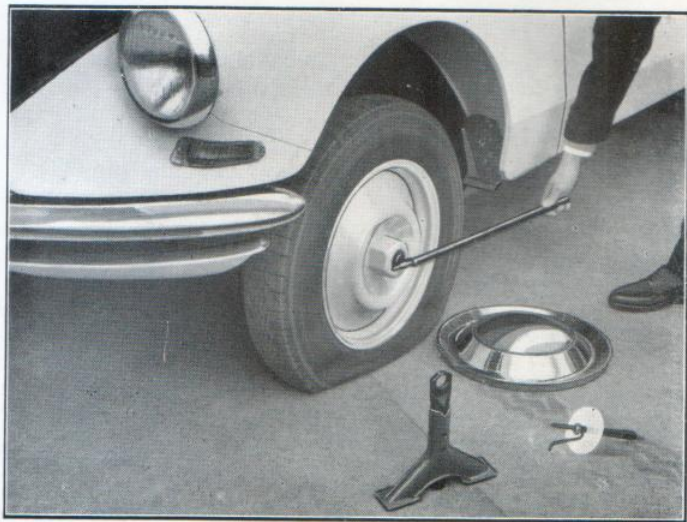


Figure 17

Loosening the central lug nut on the wheel

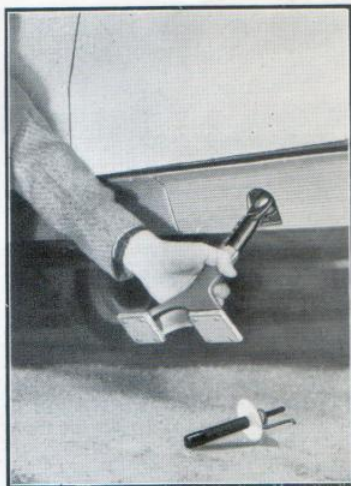


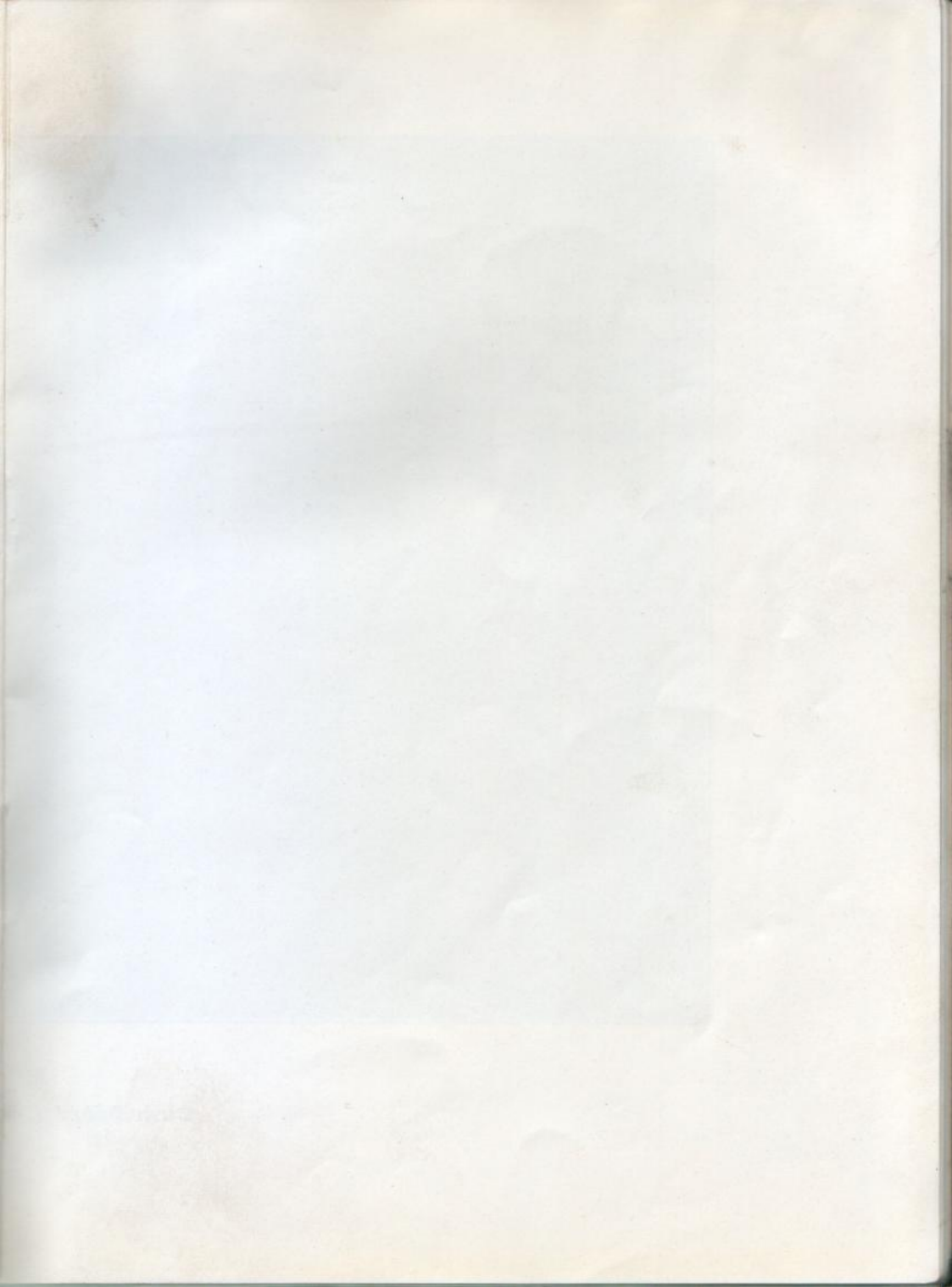
Figure 18
Hooking on the stand



Figure 19
Locking the stand

- Refitting: make sure the hub is clean, then put the spare **as far as possible** on the hub.
- Tighten lug nut.
- Move the control lever to the top position (fig. 11).
- Remove the stand.
- Move the control lever to the normal position (broad white mark on the housing).
- **Firmly tighten** lug nut using the long lever in the position shown in figure 17.

Replace the hubcap noting the position of the hole for the valve. If working on a rear wheel, refit the fender; first engage the dowels (fig. 14) in their housings. **Push the fender as far as possible towards the front** then screw up the nut (fig. 13).



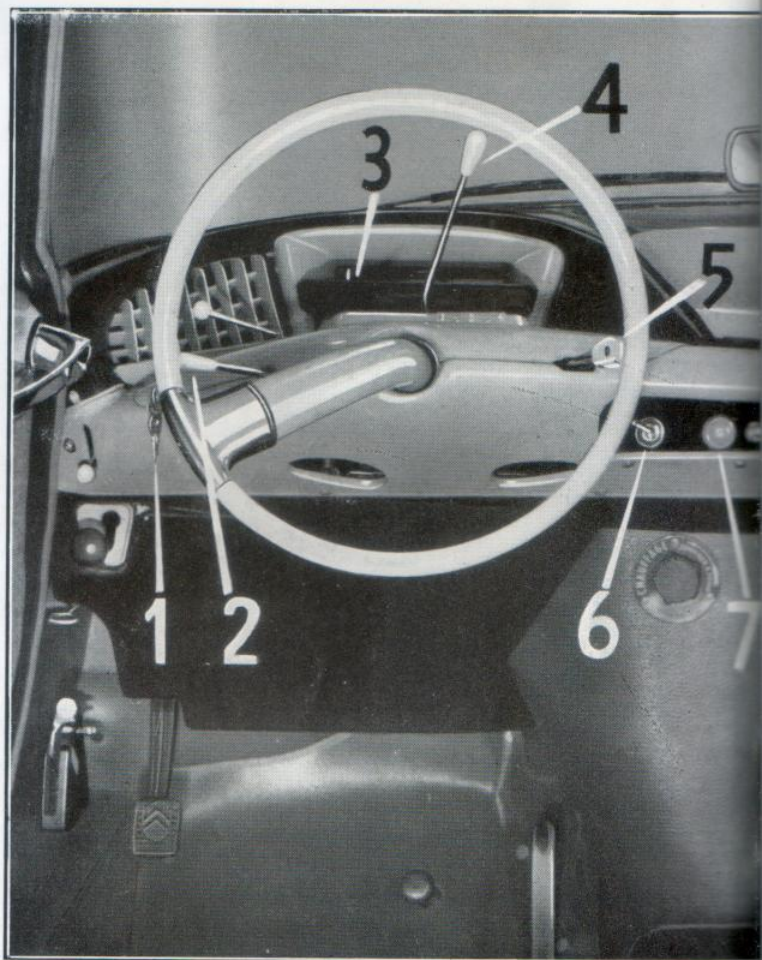
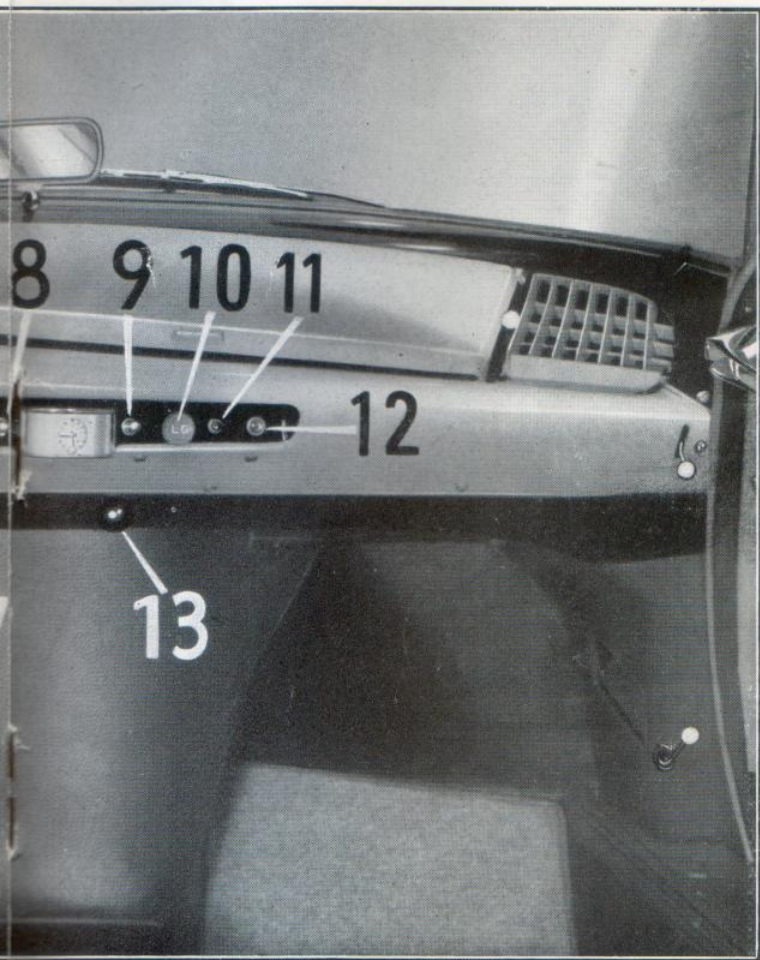


Figure
Dash Board (See



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e pages 13 and 14)

not interchangeable between chokes (being of different diameters). To avoid any possibility of replacing the jets incorrectly we recommend that they should not be removed. If, however, it becomes necessary to inspect them, proceed as follows :

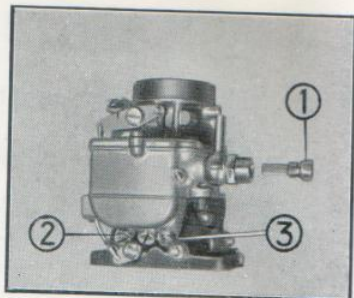


Figure 21-B
Zénith

WEBER : main jets (one on each side), remove nuts **3** (fig. 21) and **4** (fig. 21 A).

— idling jets (one on each side), remove nuts **5** (fig. 21) and **6** (fig. 21 A).

ZENITH : main jets : remove plugs **2** and **3** (fig. 21 B), then unscrew the jets which will be found at the bottom of the jet wells (special wrench required).

— idling jets, remove the float chamber cover, the jets will be found in the carburettor body.

Battery.

From time to time check the water level. It should cover the top of the plate by approximately $3/8''$ in each cell. Add only **distilled water**; never add acid.

Precautions against frost.

1. Battery

The best precaution against frost is always to have a fully charged battery.

Normally charged (acid S.G. 1.210) a battery will resist — 20° F.

Half charged (acid S.G. 1.160) it will resist 5° F.

Discharged (acid S.G. 1.075) it will burst at 23° F.

2. Radiator and Cylinder Block

The car when delivered is filled with **anti-freeze, which should be maintained all the year round.** The proportion of anti-freeze is sufficient to protect the radiator and cylinder block at a temperature of 5° F. If for any reason the cooling system is drained, refill it with a mixture of 1 3/4 gallons water and 2/3 gallon of **non-volatile anti-freeze.**

Alcohol must not be used.

The replacement of the cooling liquid is a somewhat delicate operation. It can best be carried out by official Agents who have experience of the materials used.

A draining point is provided at the right hand side of the bottom of the radiator (tap). The cylinder block can be drained through a hole located below the dip stick (hexagonal headed screw).

It is recommended that in very cold weather the engine should be allowed to idle for some minutes before accelerating. This allows time for water and anti-freeze to mix.

Air Cleaner.

It is a good thing to clean the air filter every 3,750 miles. Follow the instructions printed on the filter.

Gasoline filter.

In addition to the gauze filter fitted on the carburettor there is a plate filter fitted **on the gasoline pump.** Do not attempt to take it apart yourself; have it cleaned by a Citroën Agent.

Filter for the Hydraulic System.

This is located at A (fig. 4) in the reservoir.

Every 6,250 miles have it cleaned by a Citroën Agent by immersing in alcohol followed by blowing out the inside with compressed air.

to the 4th spark plug. Remove the rubber plug 1 (fig. 23) which closes this hole. Do not forget to replace this plug after completing the operation.

Terminal for connecting accessories.

If it is desired to fit additional electrical accessories such as radio, fog lamp, reversing lamp, etc., they should be connected to the special terminal which has been designed for this purpose. This terminal which is designed for a current of 20 amps. is situated behind the dash board to the right of the glove box (fig. 24). The glove box must be removed to give access to the terminal.

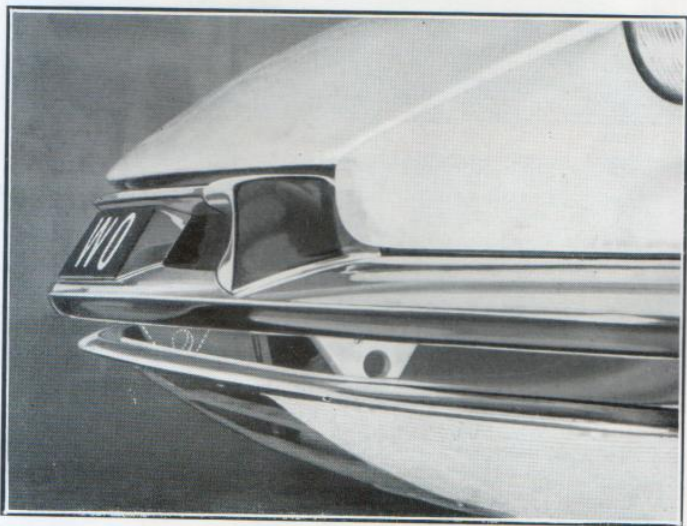


Figure 25
Towing points

Attachment of tow ropes.

Two holes are provided in the front of the chassis side-members below the bumpers to allow tow ropes to be

attached to the car when necessary (fig. 25). The car must not in any circumstances be lifted by these holes.

" Plexiglas " rear window.

- a) **Cleaning** : The " Plexiglas " must first be washed in fresh water to get rid of dust, mud or any abrasive particles which might scratch the surface.
- Use a clean chamois leather to dry the surface.
Never rub dusty plexiglass with a dry cloth or you may scratch it.
 - Never try to scrape off ice, snow or frost, wait till it melts.
- b) **Maintenance** : " Plexiglas " is more or less attacked by various chemicals such as : alcohol, benzene, Lockheed brake fluid, leaded gasoline, etc. Do not therefore use chemicals for cleaning purposes.
Accidental scratches may be removed by rubbing with a chamois leather soaked in " Plexipol ".
- c) **Polishing** : Once or twice yearly the plexiglass may be polished with " Siliplex " using a chamois leather or a clean cotton wool pad.

COMFORT

Ventilation.

Two grills **3** and **8** (fig. 26) left and right of the dash board admit fresh air into the car.

The two levers **4** and **6** (fig. 26) allow the flow of air to be regulated.

The two deflectors **2** and **7** (fig. 26) enable the air streams to be directed either towards the roof or towards the faces of the driver and passenger.

In summer the heater-defroster unit may be used to increase the fresh air supply. Completely close the heater control valve **5** (fig. 26), then raise levers **1** and **9** which will admit fresh cool air to the drivers' and passengers' feet.

Starting up the defroster motor will create a cool draft from the bottom of the windshield.

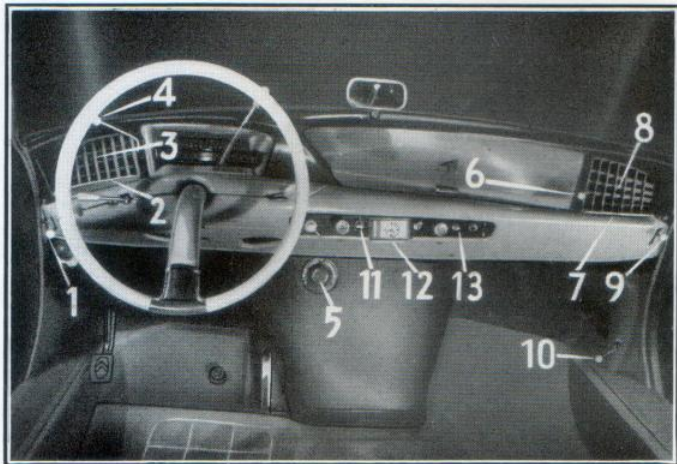


Figure 26

Controls for ventilation, heater, defroster, etc.

Heating.

Fresh air drawn from the outside passes through two special radiators which heat it before it enters the car.

The heating is adjustable both for temperature and for quantity of air.

The rubber knob **5** (fig. 26) is the heat control.

The levers **1** and **9** (fig. 26) control the volume of warm air admitted through the outlets at the right and left.

Movement of the lever **10** distributes the heat between the outlet at the front and the outlet at the rear on the right hand side of the car.

Defroster.

An electrically driven fan draws already heated air from the inside of the car, heats it up in passing through a special radiator and blows it out at the base of the windshield.

The speed of the fan is adjusted by turning the button **13** (fig. 26) which controls the rheostat.

In very cold weather the heating inside the car can be increased by using the defroster but at **moderate speed**.

Interior Lighting.

These are controlled by the switch **11** (fig. 26).

This switch can be put in 3 positions;

Pushed right in — the interior lamps are out.

Pulled half-way out — the interior lamps are out but are switched on when the front right hand door is opened.

Turned 1/8 turn clockwise and pulled right out — the interior lamps remain switched on.

Illumination of the trunk.

The trunk light is turned on and off automatically by the opening and closing of the trunk.

Front Seat.

The seat adjustment lever **1** (fig. 27) is situated below the front of the seat. Extent of adjustment; 5 7/8". To unlock the slide, press the lever down.

The inclination of the back is adjustable.

Unlock the two chromium-plated screws **2** (fig. 27) situated at the bottom of the back, by about 4 turns. Set it at the inclination desired and firmly tighten the screws by hand.

To convert the front seat into a bed, lower the back completely.



Figure 27
Adjustment of the front seat

Ashtray.

It is located in the dash board **12** (fig. 26).

To open it draw, the box out by placing the fingers in the two grooves provided underneath.

To withdraw it from its housing and empty it, push on the tongue forming the spring.

Opening and Locking of doors.

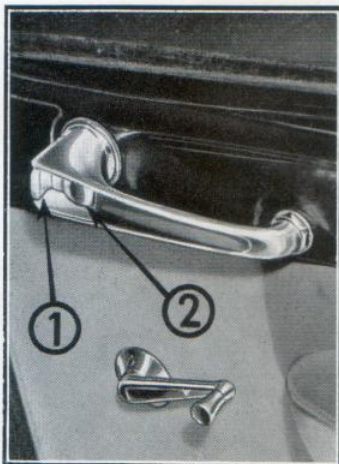


Figure 28
Door Lock

To open the door, grip the handle (fig. 28) and press the catch **1**. The catch should be moved from front to rear.

To lock the door press on the catch **1** which should be moved from rear to front. To unlock the door press on press button **2**.

Rear-View Mirror.

The mirror may be used in the "Day" or "Night" position without re-adjustment.

The change-over from one position to the other is made by moving the control tab back or forward. In the "Night" position, glare from following cars is eliminated.

Sun visors.

The two sun visors can slide longitudinally on their spindles allowing them to be moved according to the angle of the sun's rays. They can also be swung round if necessary to mask the top of the door glasses.

GREASING

Choice of Lubricants.

Use non "detergent" oil only.

Lubrication of the Engine.

The oil filler (fig. 29) can be opened by a quarter of a turn of the cap.

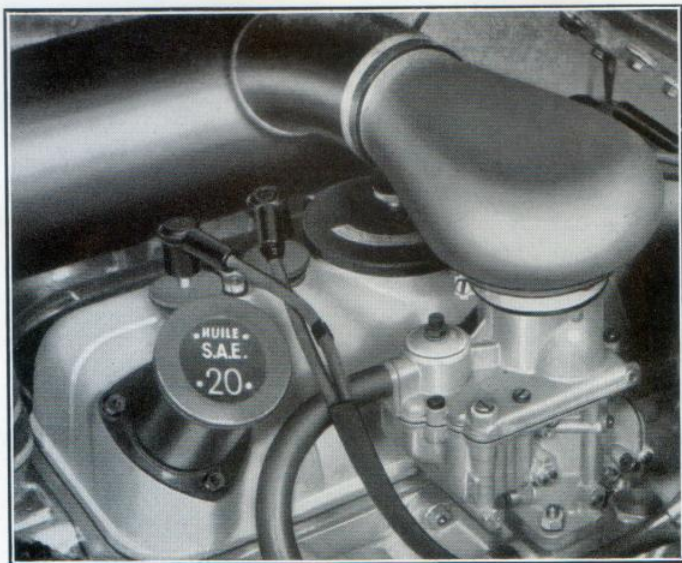


Figure 29
Oil filler on engine

Drainage of the sump should be carried out **when the engine is warm** every 2,500 miles and refilled with 4 quarts of S.A.E.20 oil, summer and winter.

Never turn the engine (even with the starter) when the engine sump is empty.

Gearbox.

Every 3,700 miles check the level of the oil in the gearbox. It should be level with the edge of the filler opening (fig. 30). Fill with a **S.A.E.90** oil.

Approximately every 12,000 miles it is a good thing to have the gearbox drained by a Citroën Agent. Drain plug at **1**.

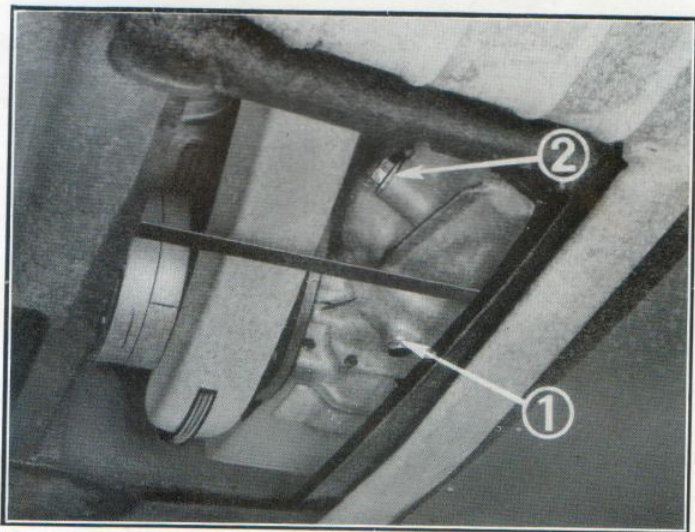


Figure 30

Oil level and draining the gearbox

Greasers.

The DS.19 chassis has 6 greasers and 2 oilers.

Every 1000 miles grease the following points.

With an adhesive grease

The driveshaft joints **1** (fig. 31); 1 greaser on the right and 1 on the left.

The upper pivot bearing **2**; 1 greaser to the right and 1 to the left.

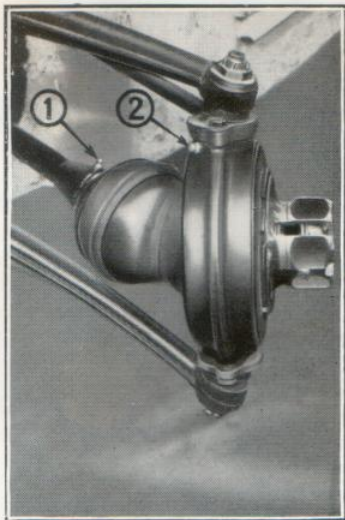


Figure 31

Drive shaft and pivot

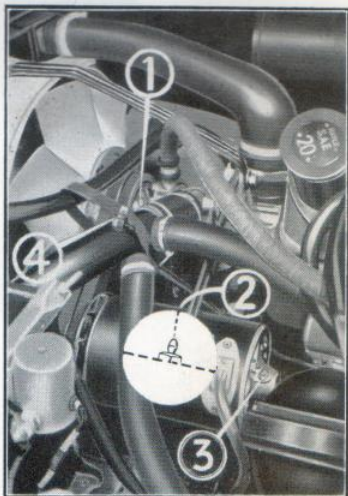


Figure 32

Oiler for fan spindle

With a special grease for bearings

The fan driveshaft bearing **1** (fig. 32).

The main driveshaft bearing **2**.

With engine oil :

The rear generator bearing **3** (fig. 32).

PRINCIPAL CHARACTERISTICS

Power..... 80 b.h.p. at 4,500 r.p.m.

Capacities.

U.S. GALS.

Gasoline tank.....	17
Radiator and heating system....	3
Transmission (oil).....	2 quarts
Engine Sump	4 quarts
Hydraulic Fluid Reservoir	11 pints

Main Dimensions.

Overall length	15' 9"
Overall width	5'10 1/2"
Height (unladen).....	4'10"

PRINCIPAL ADJUSTMENTS

SPARK PLUGS : Marchal 35
 (or Champion H.10.)
 Gap 0.020'' to 0.024''
 (0.6 mm to 0.77 mm)

BREAKER POINTS . . . : Gap 0.016'' (0.4 mm)

VALVE CLEARANCES : Inlet 0.008'' (0.20 mm).
 Exhaust 0.010'' (0.25 mm).

CARBURETTOR	MAIN JET	SLOW RUNNING JET
Small Choke	105	45
Large Choke	145	65

GREASING RECORD (Continued)

DATE	MILEAGE on speedometer	OIL change	DRAINING gear box	GREASING

C I T R O Æ N

