

**TECHNICAL
INFORMATION**

CITROËN

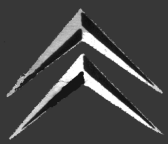
CITROËN CARS CORPORATION

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SERVICE BULLETIN # 73

ID 19 CONFORT

Since September 1961, the braking system on ID 19 CONFORT is modified as follows:

- 1) The master cylinder is replaced by a brake control unit with a dual valve supplied with high pressure.
 - a) From the main accumulator for the front brake circuit (see fig. 3).
 - b) From rear suspension circuit for the rear brake circuit(see fig. 3, circuit identical to DS-19 & ID-19 Station Wagon).
- 2) The rear brake cylinder diameter has been increased from 16.5mm to 18 mm.
- 3) The pedal gear is modified and now has:
 - a) a new floor support
 - b) a new brake pedal
 - c) a new clutch pedal similar to the type used on ID 19 Station Wagon.
- 4) The distribution block # DM 393-03 is eliminated. A new safety valve unit (fig.4) is installed between the main accumulator and the rest of the circuits. The safety valve will close the suspension circuit if the pressure in the main circuit falls to value between 70 and 90 Kgs/cm² (or 1000 - 1280 p.s.i.) At this point only the front brake circuit is fed.
- 5) A new red light indicator on the dashboard will go on if the pressure in the main circuit drops below 55 to 75 Kgs/cm,²(780 - 1170 p.s.i.) This light is controlled by a pressure switch mounted on the safety valve(see fig. 4).
- 6)The pressure of the main accumulator has been modified to 40 +2/-10 Kgs/cm
- 7)The hydraulic brake fluid reservoir is modified. The accelerator linkage and the distributor are now similar to the type used on ID 19 Station Wagon.

IMPORTANT REMARKS

- 1) **PRESSURE BUILD UP.** The front brake circuit is fed directly by the main accumulator. The rear brake circuit will be fed only if the suspension circuits are under pressure, i.e. when the car is in normal height position or in high position, when the car is in low position only front brakes will operate. Therefore, when removing rear wheels it is necessary to loosen the central wheel nut while the wheel is still on the ground. As a matter of fact it is impossible to stop the wheel by means of the main brake as soon as the height control lever has been moved to the low position.
- 2)**PRESSURE SWITCH:** The red light indicator must be off when the car is stabilized in its normal height driving position.
- 3)**PEDAL GEAR ASSEMBLY (Fig. a)**
 - a)The play "J"1 between the brake control unit and the pedal actuator must be from 0.05 to 0.5 mm (0.002" to 0.02". It is adjustable by setting the screw "v". When screwing it in, you reduce the play "J".
 - b) Stop light switch adjustment. Once the play "J1" has been set as described above, proceed as follows :
 - screw the set screw "v" until the contact is established (watch stop light), then unscrew 2 turns +/- 1/6 turn.
 - tighten the nut.
 - check for correct operation by applying the brake pedal.

4) BLEEDING THE BRAKES.

FRONT BRAKES.

- a) Release pressure. In order to do this
 - bring the car in low position
 - release the pressure reserve in the main accumulator by opening the bleed screw (1 turn) on the pressure regulator (or by repeatedly applying the brake pedal). Close the pressure regulator bleed screw.
- b) Place a flexible tube on the right brake unit bleed pipe. Immerse the other end of tube in a clean and transparent bottle already containing some hydraulic brake fluid.
- c) Open the brake bleed screw.
- d) Press on brake pedal and start the engine. Let brake fluid pour until it is free of air bubbles.
- e) Close the brake bleed screw while the liquid is still pouring.

NOTE: The liquid from the bottle cannot be re-used as is since it contains air bubbles. It could be re-used after a 24 hour period

REAR BRAKES

- a) Move the height control lever to high position
- b) Place horses at rear of car to prevent it from levelling down while the rear brakes are bled.
- c) Remove dust protector from rear cylinder bleed screw.
- d) Check bleed screws for cleanliness and place flexible tubes on each one. Immerse the end of the tubes in a clean, transparent bottle already containing some hydraulic brake fluid.
- e) Bring the car to the low position.
- f) Open rear bleed screws.
- g) Move the height control lever to highest position.
- h) Press on the brake pedal and start the engine. Let fluid pour until it is free of air bubbles, then close the bleed screws while the liquid is still pouring. Re-install bleed screw dust protectors.
- i) While the car is in high position remove horses. Check level of the hydraulic brake fluid and shut engine off. Move the height control lever to normal driving position.

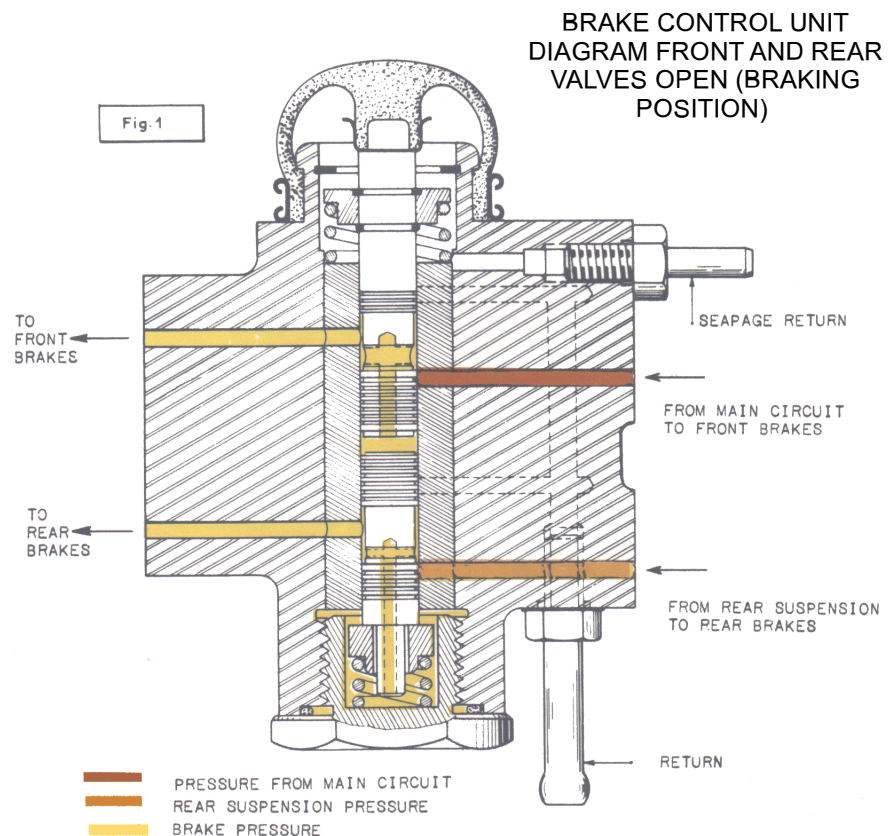


Fig. 2

PEDAL GEAR AND BRAKE CONTROL UNIT ASSEMBLIES

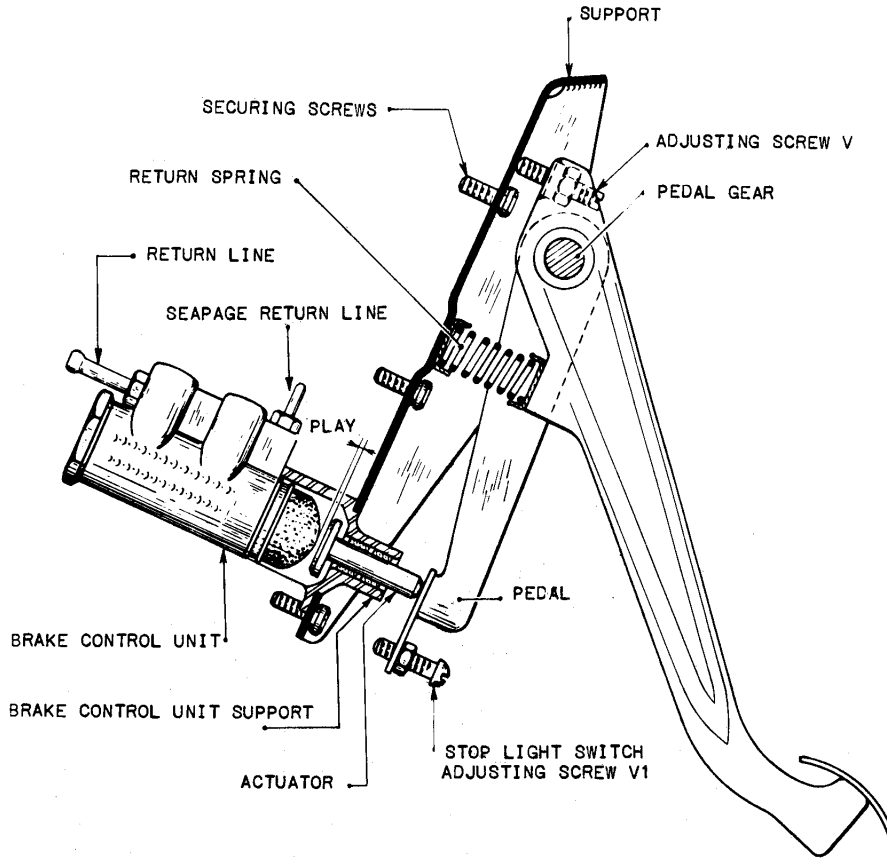
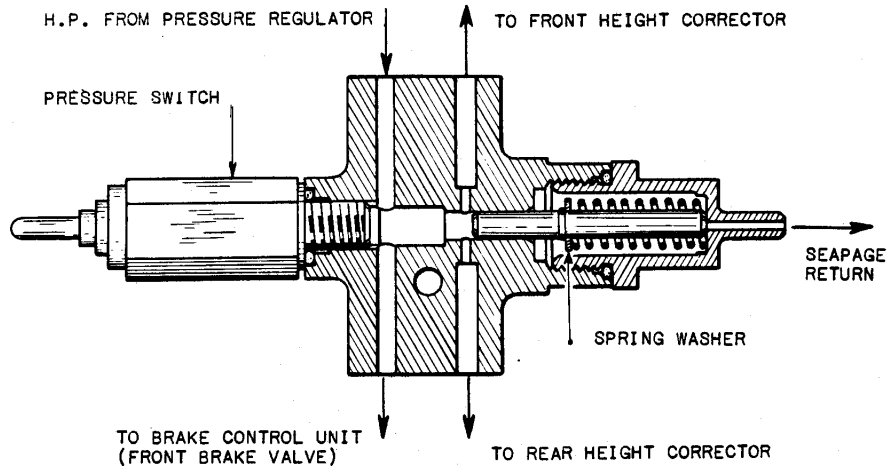


Fig. 4

SAFETY VALVE DIAGRAM

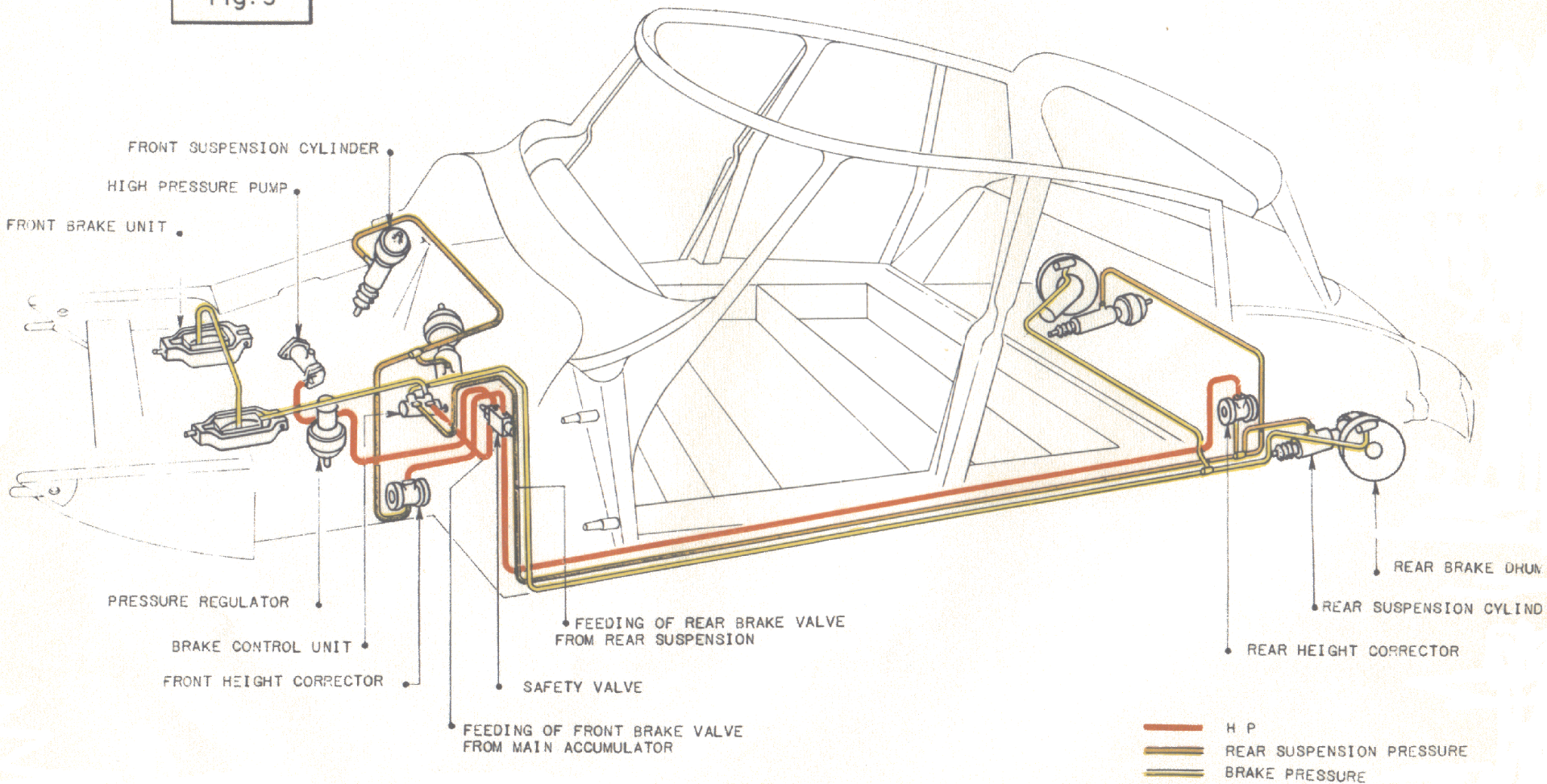


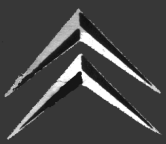
ID 19

H. P. CIRCUIT

(SUSPENSION - BRAKE)

Fig. 3





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SERVICE BULLETIN #C-I46

MODELS: 2 CV / AZA - AZAM - AZU SUBJECT: BRAKES - Master cylinder and wheel cylinders.

These vehicles are now equipped with parts made by either LOCKHEED or STOP.

Note: The brand name STOP or LOCKHEED appears on the cast cylinder body of each part.

SERVICE:

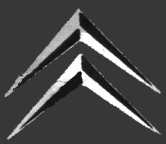
It is possible:

- 1) To mount on the same car a STOP master cylinder and LOCKHEED wheel cylinders or the reverse.
- 2) To mount on the same car LOCKHEED wheel cylinders at the front and STOP wheel cylinders at the rear or the reverse.

Note: The cylinders of the wheels of one "axle" must be absolutely of the same brand.

The operations of mounting, dismounting and reconditioning appear in the shop Repair Manuals Nos.447 and 490.

The parts necessary to recondition the STOP units are sold by our Parts Department.



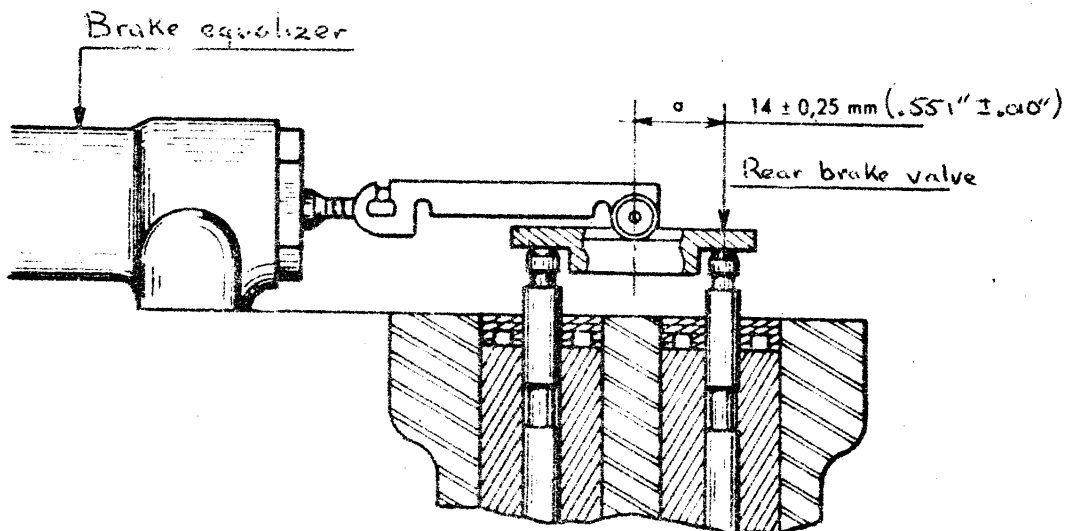
December 8, 1966

SERVICE BULLETIN # C/F- 164

MODELS: DS 21(DX-DJ) / DS 19a(DY-DL) / SW 21(DJF) / SW 19a(DLF)
Date of manufacture: since September 1966.

SUBJECT: BRAKE8 - Adjustment of the Distribution of Braking (reference Operation DX 453-0 of the Shop Repair Manual #527)

In order to adapt the braking distribution according to the load distribution on the above mentioned models, the dimension "a" as taken between the axis of the trolley rollers and the axis of the slide valve for the rear brakes has been brought to $14 \pm 0.25 \text{ mm}$ ($0.551" \pm 0.010"$). The reading is to be taken with a pressure of 61 kg/cm^2 (870 psi.) in the cylinder of the brake equalizer.



The end of paragraph 14, and the paragraph 16 of the Operation DX 453-0, Shop Repair Manual # 527, should be modified as follows:

14..... and the pedal -

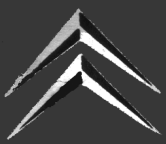
Pump to a pressure of approximately 122 kg/cm^2 (1735 psi.). Gently loosen the bleed screw (c) of the pump, to allow the pressure to drop to 61 kg/cm^2 (870 psi.)

Measure the dimension "a" between the axis of the trolley rollers and the axis of the slide valve for the rear brakes.

15

16- Pump again to bring the pressure to 61 kg/cm^2 (870 psi.). Measure the dimension "a". For these two readings the value of "a" should be $14 \pm 0.25 \text{ mm}$. ($0.551" \pm 0.010"$).

NOTE: This adaptation can be applied to cars of the above mentioned models produced earlier.



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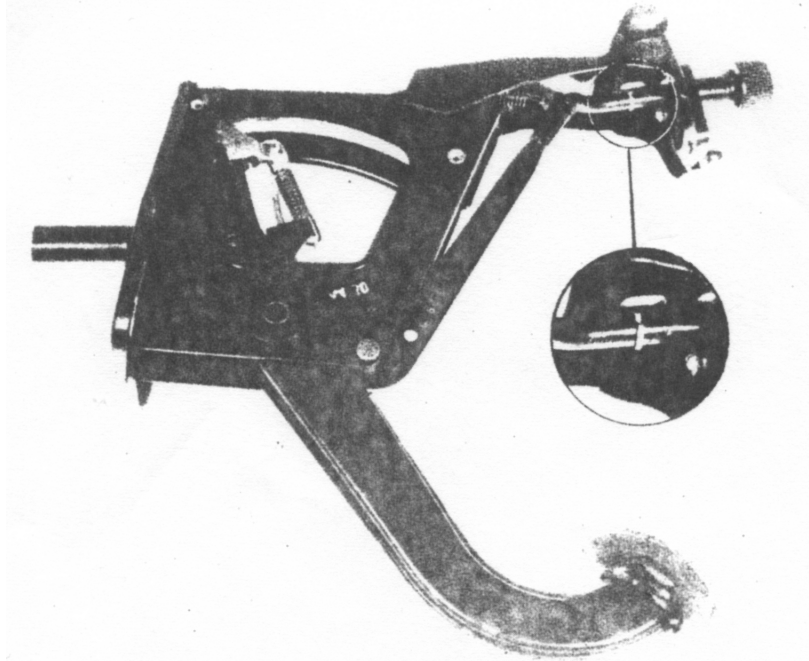
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SERVICE BULLETIN No. C-221

MODELS: DS 21(DX) / DS 19A(DY)

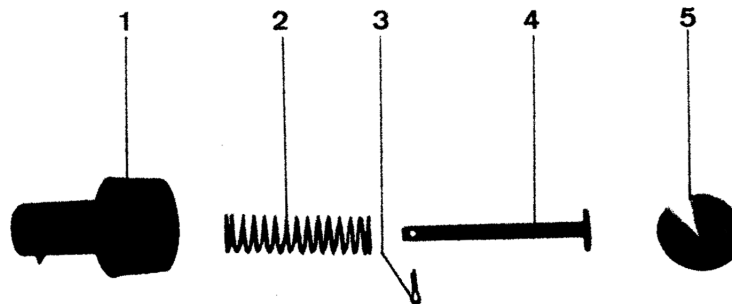
SUBJECT: BRAKES - Mechanical Control

The knob operating the parking lever on the mechanical brake control unit is now removable.



WORK ON THE MECHANICAL BRAKE CONTROL UNIT ("D" PALLAS AND CONVERTIBLE MODELS)

REPLACEMENT OF A PARKING BRAKE CONTROL KNOB



REMOVAL:

- 1) Place the knob in the "released" position.
- 2) Remove the cotter pin (3).
- 3) Disengage the assembly of the knob (1), the pin (4) and the spring (2) from the end of the parking lever
- 4) Hold the assembly vertically, supporting it on a work bench, and bear down on the knob in order to disengage the cap (5). Remove the pin (4) and the spring (2) from the knob.

PARTS:

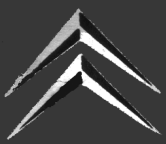
NAME	PART NUMBER
Spring Support Pin	DX 454-120 a
Chrome Closure Cap of the Knob	DX 454-106
Knob	DX 454-100
Return spring	D 454-102
Cotter Pin	2422-S

SERVICE:

The removable knob cannot be adapted to the old type mechanical brake control unit. It is only possible to mount a new unit as a replacement for the old type. Attached is an outline for changing an operating knob on the new mechanical brake control unit.

PREPLACEMENT :

- 5) Place the spring (2) and the pin (4) inside the knob.
- 6) Engage this assembly on the end of the parking lever. Press the pin (4) in order to make it coincide with the cotter pin hole. Replace the cotter pin and spread it.
- 7) Place the closure cap (5) on the knob (cone toward the inside). Press it with the thumb in order to seat it.



June 2, 1969.

SERVICE BULLETIN C-253

MODLES: DX-DJ-DXF-DJF-ID19B

SUBJECT: BRAKES - Rear Flexible Bake Hose

After Febuary, 1969, the rear brake swivel piping has been replaced by flexible brake hoses. The rear body unit is modified to assure mounting of the flexible line. The rear suspension lines are modified. The common pipe line for the rear circuits is modified.

SERVICE:

Mounting a flexible brake hose on an old chassis is not possible. The new chassis are provided so as to accept the two assemblies: brake swivel pipings and the flexible hoses.

The Parts deparment will deliver only the new chassis and the new rear body units. In the case of exchanging a chasis or a rear body unit on an old car, proceed in accordance with the operation attached. For this purpose, the four tubes compsrising the common piping for the rear circuits, sold in the Parts department, have a connection at their center, but when installed on a new car these tubes are of one piece only.

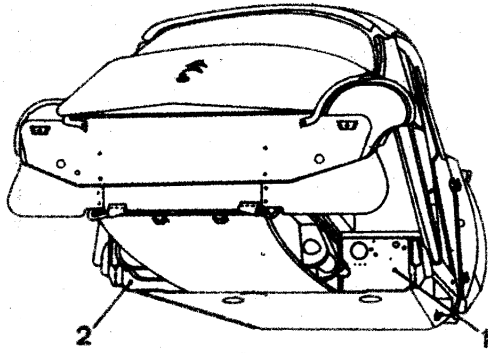
In case of exchanging the common piping for the rear circuits on a car having the rear brakes fed by flexible hoaes, separate the front section of the piping from the rear section and set the new tubes in place respectively with the front and rear of the car.

Then screw on the connections of the tubes.

Assembly of a Chassis or a New Model Rear Body Unit On a Car with Rear Brake Swivels.

1. Obtain from the Parts Department:

5 Hexagon head bolts 5x75 length 20mm	284-S-30
5 Star Washers 5.2x9.4mm	2334-S
5 Flat Washers 5.2x15 x 1.5mm	619-133
5 Nuts (Special)	615-791



Preparation:

Remarks: See Figure 1 & 2

- 1) The metal piece (reference 1) is mounted on the right side of the car. The metal piece (reference 2) is mounted on the left side.
- 2) The holes "a" and "b" are used for fastening the metal piece on all sedan models. The holes "b" and "c" are used for all station wagon models.
- 3) The hole "d" serves for fastening the clamp for the tubing of the left side.

2. According to the Model of the car counter-drill in the sill beam 10 mm dia. holes which will be used as follows:

- holes "a", "b" and "d" for the sedans

- holes "b", "c" and "d" for the Station Wagons.

3. Place the special nuts (615-791) into these holes. Fasten them onto the sill beam by drawing them up with a 5 x75 bolt (part #284-S-30), (use a flat washer wider the head). Remove the bolt.

4. Plug the unused holes to avoid the entry of water using mastic material. Cover the plugs with a piece of vinyl adhesive. Coat the assembly with Sound proof material (under-coating).

