

CITROËN

WHOLLY OWNED SUBSIDIARY OF
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INFORMATION
BULLETIN

N° 28 S

1. GENERAL CHARACTERISTICS

The 1973 SM Models for U.S. and Canada are equipped with a motor of increased displacement and horsepower, incorporating a carburetion anti-pollution system.

These cars can be furnished with:

- A 5 speed mechanical shift gear box or
- A BORG-WARNER automatic gear box, fitted with a VERTO-FERODO hydraulic torque converter.

| | | |
|---|---------------------|----|
| Commercial name: | SM | SM |
| Fiscal designation: | SB Series SD | |
| First serial number of this model: | 00SD 0001 | |
| First gear box serial number, mechanical: | 400 001 | |
| First gear box serial number, automatic : | 450 001 | |
| Curb Weight: | 1480 kg. (3263 lbs) | |
| Maximum Laden Weight: | 1870 kg. (4123 lbs) | |
| Total Rolling Weight: | 3670 kg. (8092 lbs) | |

2. MODIFICATIONS APPLIED TO MODELS WITH THE INCREASED DISPLACEMENT MOTOR IN RELATION TO MODELS EQUIPPED WITH THE 2.670 LITER MOTOR

1. Motor

a. Characteristics

Type of motor with the mechanical shift gear box Maserati C 114-12

Type of motor with the automatic gear box Maserati C-114-13

Bore..... 91.6 mm (3.606")
Stroke 75 mm (2.953")
Displacement ... 2.965 liters (181 cu.in.)
Maximum H.P. (SAE) : 190 @ 6000 R.P.M.
Maximum Torque (SAE) : 25.8 m.kg (187 ft.lbs) @
3000 R.P.M.

SM

1973 MODELS

(U.S. & CANADIAN)

NEW MODEL
CHARACTERISTICS

b. Adjustments

Valve clearance (cold): Identical to the 2.670 liter motor
- intake : 0.30 to 0.35 mm. (.012 to .014 in.)
- exhaust: 0.50 to 0.55 mm. (.020 to .022 in.)

Calibration of the valve timing with the practical clearances indicated above:

- piston No. 1 or No.6 at TDC, the valves at the end of exhaust and the beginning of intake:
- Enforcement of the intake valve - 2.2 mm (.087 in.)
- Enforcement of the exhaust valve- 1.3 mm. (.051 in.)

c. Carburators

3 Double-barrel carburators WEBER 42 DCNF 26 M/2

Specifications:

| | | | |
|------------------------------------|--------|-------------------|-----|
| Venturi | 36 | Choke jet | 110 |
| Main Jet | 140 | Idling Jet (Mec.) | 65 |
| Air Correction jet | 170 | Idling Jet (Auto) | 70 |
| Emulsion tube | F 25 | | |
| Nozzle | 3.5 | | |
| Idling air jet | 135 | | |
| Pump check valve | 100 | | |
| Pump injector | 50 | | |
| Travel of pump (Diaphragm)..... | 3.5 mm | | |
| Pump jet | F 7/80 | | |
| Brass float | 11 g | | |
| Needle | 200 | | |

Idling Adjustment:

(Position "N" or "P" Automatic { 900 ± 50 R.P.M.
Mechanical gear box)

Air pump: Cars equipped with the automatic transmission now have a new air pump with increased output. The drive belt (Gates No.11M775 Citroen No.5436 182), the tie-rod, the support bracket and the hoses are modified:

NOTE: The idle should be adjusted with the air pump disconnected. Adjust the idle mixture screw to obtain a richness reading of 4% ± 1% C.O (Carbon monoxide) at idle speed.

Tension of the belts:

New belt: 280 N (62 lbs)

"Broken-in" belt: 210 N (46 lbs max.) 170 N (38 lbs.Min.)

(For the method of adjustment see Bulletin No. 6 S of April 24,1972

Dash-pot : Only on cars equipped with the automatic transmission.

d. Cylinder Heads:

The diameter of the intake ports is increased:

∅ = 34 mm (1.339 in.) instead of 32 mm. (1.260 in.)

New cylinder head gasket: REINZ (part number 5 437 648 V)

New spring and upper and lower spring cups.

e. Camshafts:

Modifications: Intake ▲ (These foundry marks are located on
Exhaust ■) the maneuverable section of the
(camshaft.

f. Intake Manifold:

Modified in accordance with the cylinder head assembly having the larger diameter (34 mm.) ports.

g. Motor Block:

Modified in accordance with the increased displacement and the assembly of the new sleeves, as well as for the mounting of a starter of greater diameter, attached with studs instead of bolts.

h. Lower Motor Block:

Modified in accordance with the mounting of the new starter.

i. Motor Components:

- Flywheel: Modified in accordance with the increased diameter of the centering dowels for the pressure plate.
- Crankshaft: Balanced differently in accordance with the increased diameter and weight of the pistons. Reference marks on the cheek of the 5th counterweight.

Example: The marks now appear as AA 3.50 instead of AA 50 (the figure 3 identifies the crankshaft for the 2.965 liter (3 liter) motor).

The crankshafts in motors coupled to an automatic transmission differ from those motors coupled to a mechanical transmission. The differences are:

- a centering ring in the end of the crankshaft replacing the bearing head by a circlip (on "mechanical" cars).
- the flywheel centering dowel is 11.9 mm. (.469 in.) instead of 17.5 mm. (.689 in.) for the "mechanical" cars.

j. Pistons:

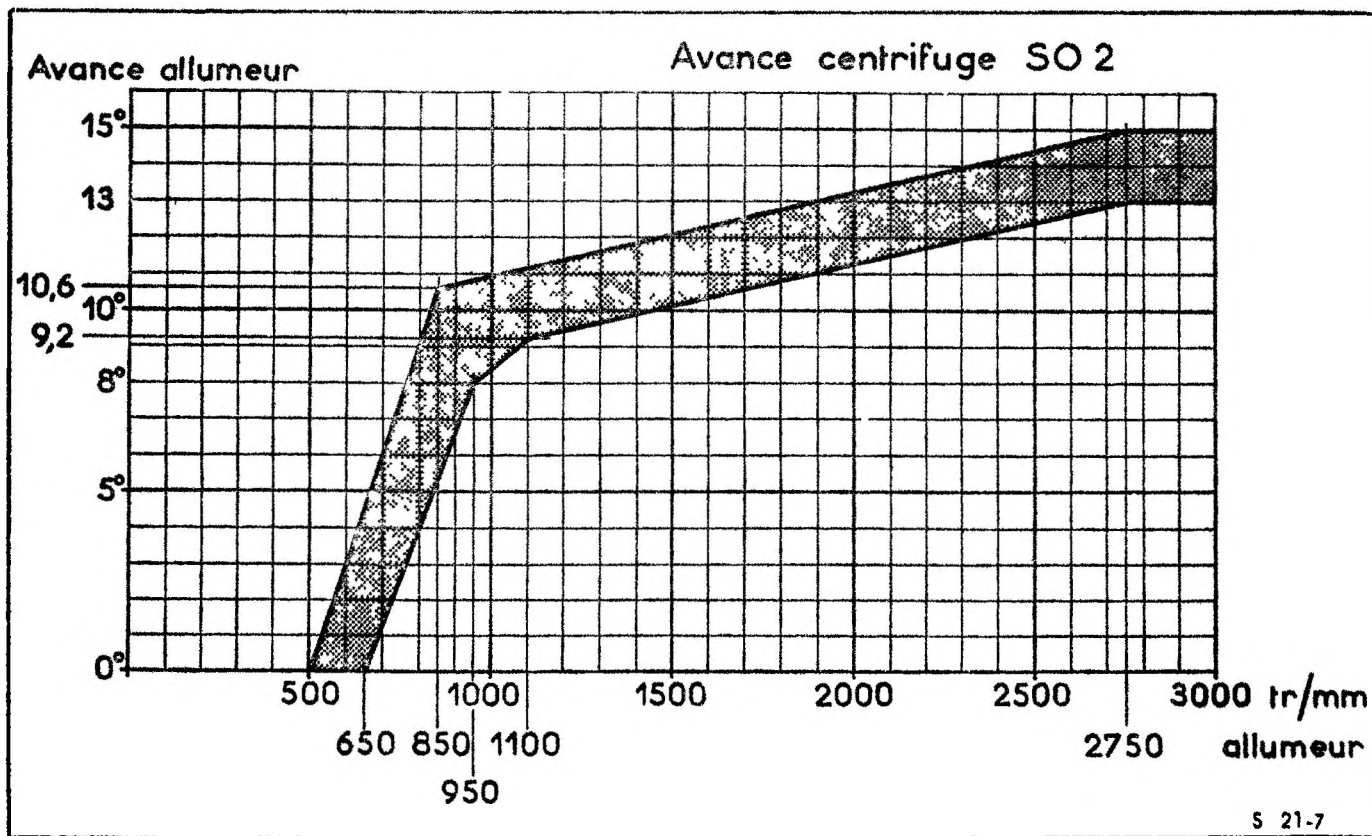
Modified to the increased displacement

k. Distributor:

SEV MARCHAL Reference: 411 10902 CITROEN
Reference: 5 430 190 E.

Advance Chart:

| | |
|---------------------|-----------------------|
| "Avance Allumeur" | "Distributor advance" |
| "Avance centrifuge" | "Centrifugal advance" |
| "tr/mm allumeur" | "distributor R.P.M." |



1. Coils:

Different locations: mounted near the auxiliary tank for the cooling system.

m. Spark Plugs:

1st Installation: Golden Lodge HL
 Authorized Installation: Bosch 175 T 30
 : Champion N 11 Y

2. Clutching

On Motors with a mechanical gear box

The pressure plate is modified to suit the increased diameter of the centering dowels (9 mm. or .354 in. instead of 6 mm. or .236 in.)

FERODO No. 235 DBR 1
 CITROEN No.5 432 503

The clutch disc is also modified, it has a machined hub (CITROEN part number 5 432 504).

Remark. It is imperative to mount the new disc with the machined hub with the new pressure plate.

However, it is possible to mount the new clutch, with the machined hub with an old type pressure plate.

On Motors with an automatic transmission:

A torque converter having a diameter of 2.70 mm (10.63 in.) (Reference #1684) replaces the previous torque converter with a smaller diameter of 250 mm. (9.84 in.) (Reference #1681).

3. Gear Boxes

a. Mechanical:

The gear box ratios are unchanged, the theoretical speeds at 1000 R.P.M. in the M.P.H. are slightly modified in accordance with the mounting of the 205/70 VR 15 XWX tires, developing under load a distance of 2,056 meters (6.744 ft.)

Speed Gear Box Ratio Differential Total Reduction Speed at 1000RPM In Miles Per Hour.

| Speed | Gear Box Ratio | Differential | Total Reduction | Speed at 1000RPM In Miles Per Hour. |
|-------|---|--------------|-----------------|-------------------------------------|
| 1 | $\frac{18}{38} = 0,342$ | | 0,078 | 6.06 |
| 2 | $\frac{17}{33} = 0,515$ | | 0,117 | 9.12 |
| 3 | $\frac{28}{37} = 0,756$ | 8 x 35 | 0,170 | 13.37 |
| 4 | $\frac{33}{32} = 1,031$ | | 0,235 | 18.18 |
| 5 | $\frac{37}{28} = 1,321$ | | 0,301 | 23.31 |
| | $\frac{13 \times 22}{22 \times 44} = 0,317$ | | 0.072 | 5.62 |

3. Gear Boxes (Cont.)

b. Automatic

| Speed | Planetary Ratio | Return Pinions | Gear Box Ratio | Differential | Total Reduction | Speed at 1000 RPM in M.P.H. |
|-------|--|----------------|----------------|--------------|-----------------|-----------------------------|
| 1 | $\frac{28}{67}$ | | 0.496 | | 0.113 | 8.71 |
| 2 | $\frac{28}{67} \left(\frac{32 + 32}{67 + 28} \right)$ | 38/32 | 0.818 | 8/35 | 0.187 | 14.37 |
| 3 | 1/1 | | 1.187 | | 0.271 | 20.73 |
| R | 32/67 | | 0.568 | | 0.129 | 9.96 |

c. Capacities

Converter: 3.3 liters (3 1/2 qts.) instead of 2.8 liters (3 qts)
 Gear Box: 2 liters (2 1/8 qts)
 Exchanger: Oil cooler and lines: 1.2 liters (1 1/4 + qts.)
 Or a total of: 6.5 liters (6 7/8 qts) instead of 6 liters
 (6 3/8 qts.)

4. Tires

Tire Sizes: Front and rear : 205/70 VR 15 Michelin XWX
 Tire Pressures: Front: 2.3 bars (33 p.s.e.)
 Rear : 2.1 bars (30 p.s.i.)
 Spare: 2.5 bars (36 p.s.i.)

Tolerance for dynamic balancing: 10 grams (1/3 + oz.)

Remark: A label noting the specifications for homologation of this type of tire is placed inside the glove box.

5. Electricity

Starter

Increased power: 2.44 H.P.
 The diameter of the starter is 115 mm. instead of 100 mm.
 (Approx. 4 1/2" instead of 4 in.)
 The starter is mounted by means of studs instead of bolts
 (Special tool #4011-T is required for removal and replacement
 of the starter).
 The thermal shield protecting the starter is modified.

Fuel Pump

The position of the security box for the fuel pump has been changed. It is now located behind the glove box.

In accordance with the new position of the security box (part No. 5429247) a new shorter harness has been adapted (part No.5433480). This new harness is made especially for the new position of the box.

Fuel Pump (Cont.)

Note: For the old position, always order the old harness (part No. 5421604).

The operations for checking and for possible "break-downs" are identical to those outlined in Bulletin 2 S of February 25, 1972.

6. Maintenance-schedule

Certain service-operations are simplified and various mileage-intervals are extended.

However, in accordance with section 207 of the Clean Air Act, some service-operations concerning the anti-pollution system have been added.

Check the 1973 Maintenance Guide for the new maintenance schedule.