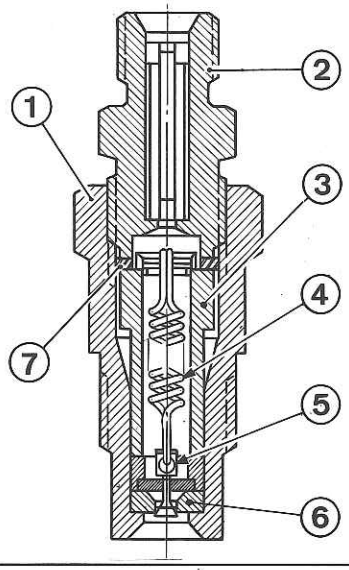
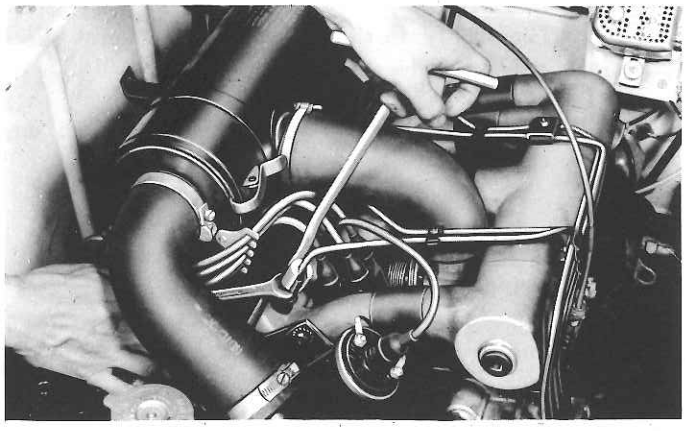
13 51



Make : KUGELFISCHER
Type : DLO 20 B

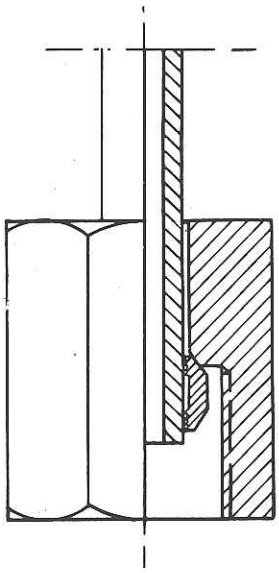
Description

1 - Injector holder
2 - Pipe union
3 - Injector
4 - Valve spring
5 - Valve
6 - Seat
7 - Steel seal



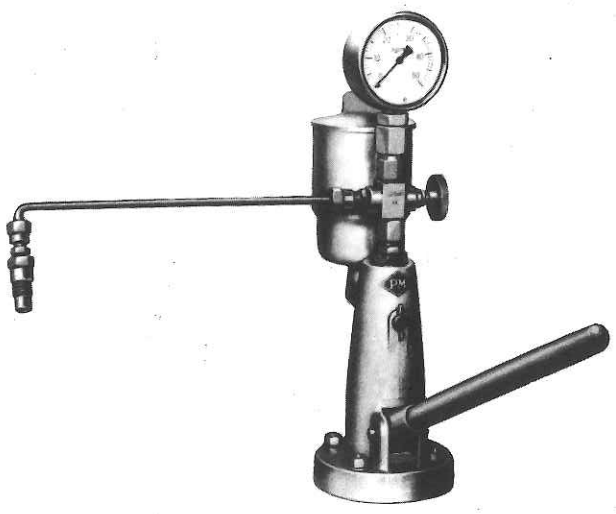
TO REMOVE

- Remove the injector pipe, using wrench **8.0112 H while holding the injector on the pipe union.**
- Protect the union
- Remove the injector and plug the hole on the intake manifold.



TO REFIT

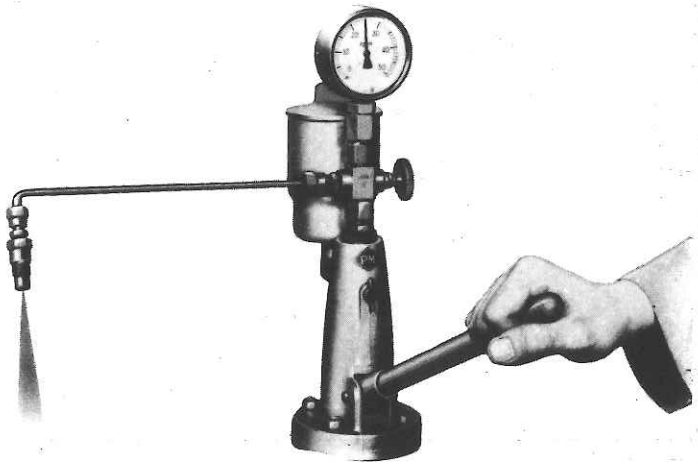
- Replace the copper gasket after each removal operation.
- Tighten the injector onto the manifold, and torque to **2 m.kg** (14.5 ft/lb).
- Tighten the injection pipes to **3.5 m.kg** (25 ft/lb), holding the injector by the union. Should the union leak, do not overtorque the union. Release and tighten again, while the engine is running. Should the leak persist, exchange the complete pipe or the injector.



TO CHECK

a - Equipment

- Apparatus PM - Type 22.41.01.0002
- Equipped with pressure gauge, rated 0 to 50 bars - **8.0113 A.**
- Injector fitted at end of pipe **8.0113 B.**
- Test fluid : diesel-oil, lubro or petrol, carefully filtered.



b - Flushing

- Thoroughly flush, by means of several sharp strokes of the rating pump.
- This operation is indispensable, before any check.

c - Opening pressure

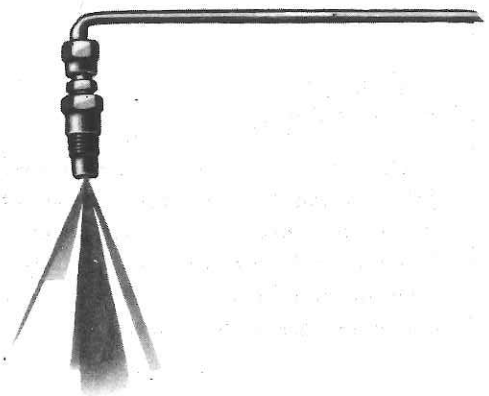
Original setting : 30 to 38 bars

Minimum permissible : 15 bars

No provision is made for adjustment.

d - Tightness

No drop should be apparent after holding a 15 bars pressure for a period of 5 seconds.

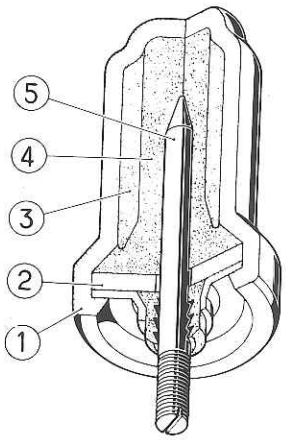


e - Shape of the spray

The fuel should be thinly sprayed and form a neat cone, without any leakage. (see opposite figure).

Any injector which fails to comply with one of these three conditions c, d or e must be discarded

THERMO PLUG



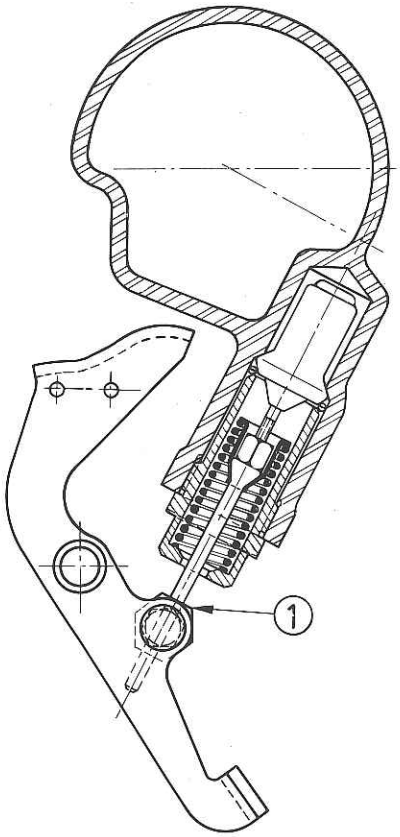
Make : SOPAC
Type : 102.788

Description

1 - Brass container
2 - Spacer and guide washer
3 - Expanding element
4 - Rubber sheath
5 - Sliding rod.

Caution

- Never warm the plug with a bare flame.
- Avoid pulling the rod out of its housing.



REMOVAL (see page 1 13 - 54)

Remove the intake manifold to remove the thermo plug.

REINSTALLATION

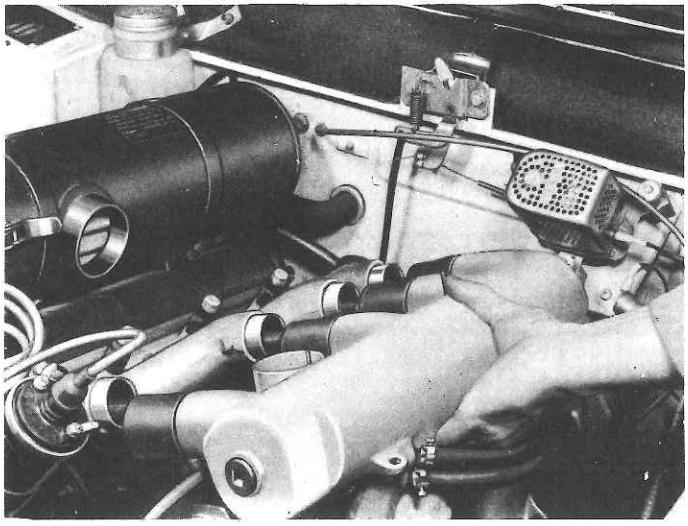
In the reverse sequence, exchange the gaskets.

After adjustment IV, hold the hex spacer 1 during tightening the rod fixation nut, in order to avoid bending the rod.

CHECK - On car.

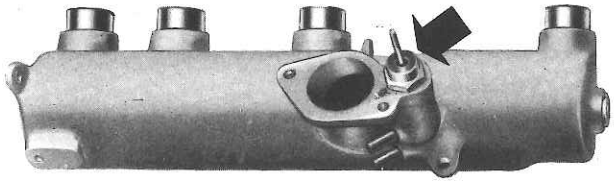
A - Engine cold - The minimum opening thrust screw must bear against the useful beam of the accelerated idling speed lever and open the air valve for the engine to run at 850 to 1,200 r.p.m.

B - Engine warm - The protruding difference, between 20° C and 80° C must be about 6 mm ± .5, read the temperature on thermometer **8.0112 C.**



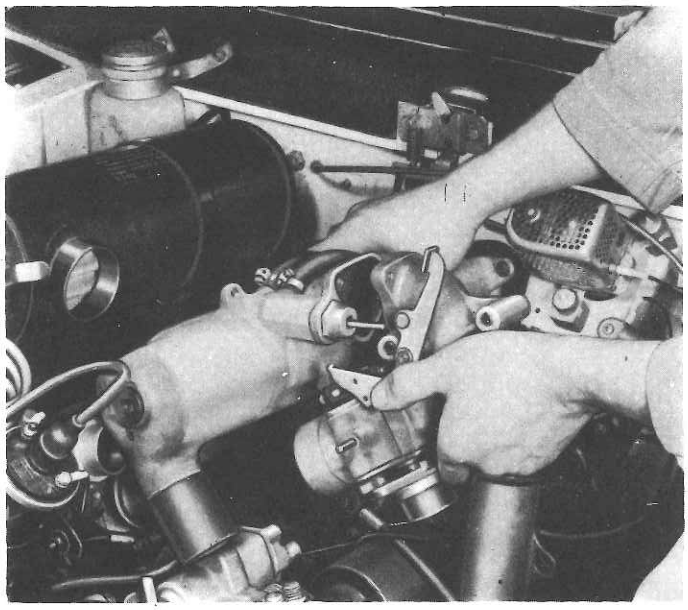
REMOVING THE MANIFOLD

- Fit the wing protective covers
- Disconnect the battery
- Remove the bundle of the four injector pipes with their flange from the manifold.
- Remove the accelerator spring
- Disconnect the rear support of the manifold and the fixation screws of the air valve to the pump.
- Pull the assy. air valve-manifold to the rear.
- Disconnect the manifold from the air valve.



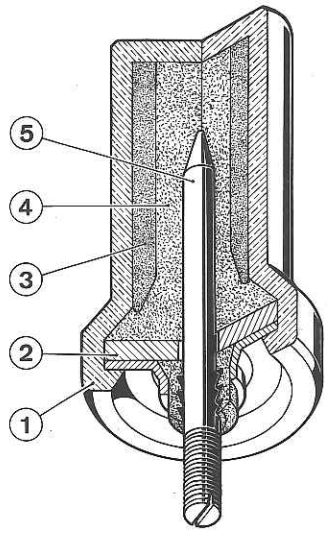
REPLACING THE THERMO PLUG

- Remove bush, spring, yoke and rod from the thermo plug.
- Remove the "O" seal ring.
- Pull out the thermo plug.
- Clean its housing within the manifold.
- Install the new thermo plug with a new gasket.
- Install the fixation parts.



REINSTALLATION OF THE MANIFOLD

- Engage the pull rod of the thermo plug into the axis of the accelerated idle running lever.
- Assemble the air valve body to manifold.
- Bring the assy in place, engage the rubber rings onto the intake hoses and the Mecanindus pins into the injection pump.
- Fit the air valve body and the manifold rear support.
- Connect the four injector pipes and their flange. Install the accelerator spring.
- Connect the battery. Set the clock.
- Carry out adjustment IV.
- Top up water in the radiator and check that the mounting is tight.



THERMO PLUG

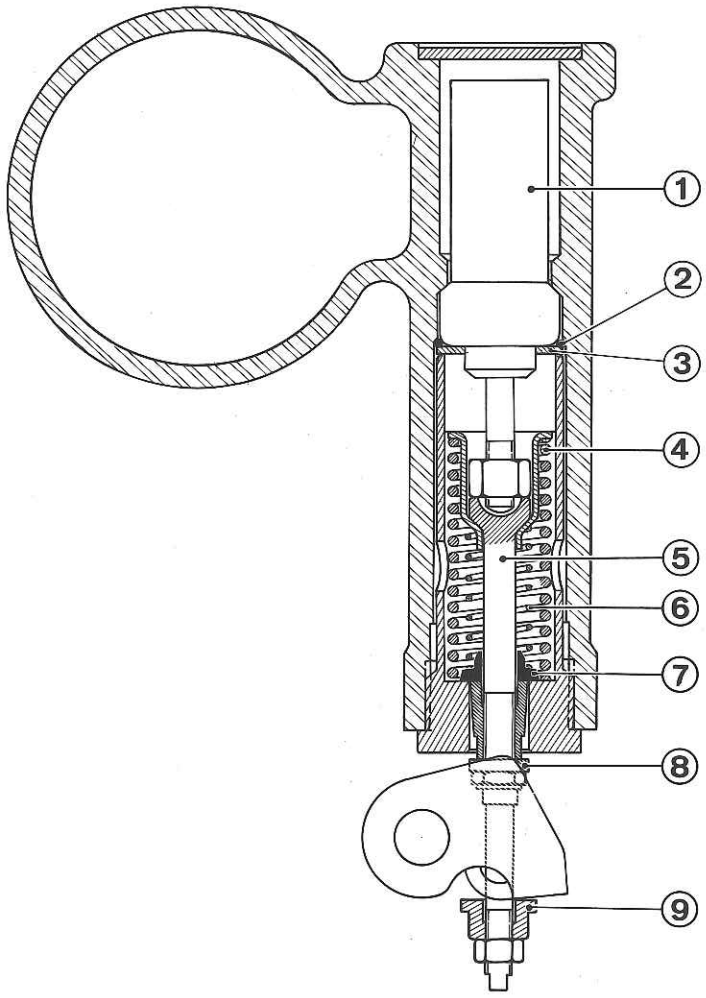
Make : SOPAC

Description :

1 - Brass cover
2 - Spacing washer
3 - Wax
4 - Rubber sleeve
5 - Control rod

Caution :

- Never warm plug with a bare flame
- Do not pull rod out



1 - Thermo plug
2 - Seal
3 - Steel washer
4 - Thermo plug spring
5 - Pull rod
6 - Air valve spring
7 - Air valve
8 - Valve adjustment nut
9 - Richness lever adjustment nut

CHECK-ON CAR

Engine cold

The richness lever is lifted up. Air valve must be open to obtain an, idle running speed of 850 to 1,200 r.p.m.

Engine warm

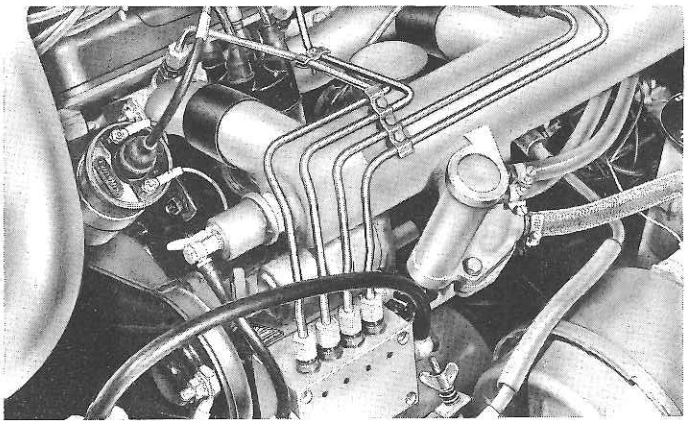
The stroke of the control rod, between 20° C & 80° C is 8.5 mm ± 0.5. Measure with a rule or with a calliper square, between nut 9 and sealing plug of thermo plug.

Read temperature on thermometer **8.0112 C.**

PEUGEOT

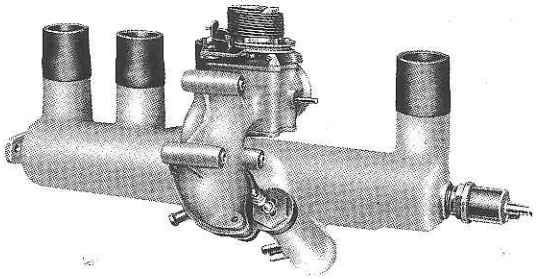
XC.KF 2

THERMO PLUG



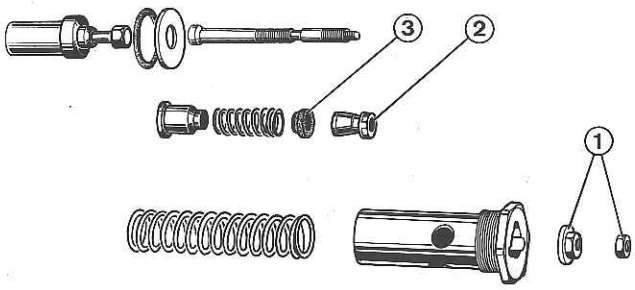
To remove intake manifold

- Fit the wing protective covers.
- Disconnect battery wire and petrol line to spray valve, connecting link, accelerating cable, heating line to thermo plug, vacuum pipe from Hydrovac.
- Remove injector pipes
- Disconnect rear support of intake manifold and fixation screws of throttle valve body to pump.



- Exchanging thermo plug

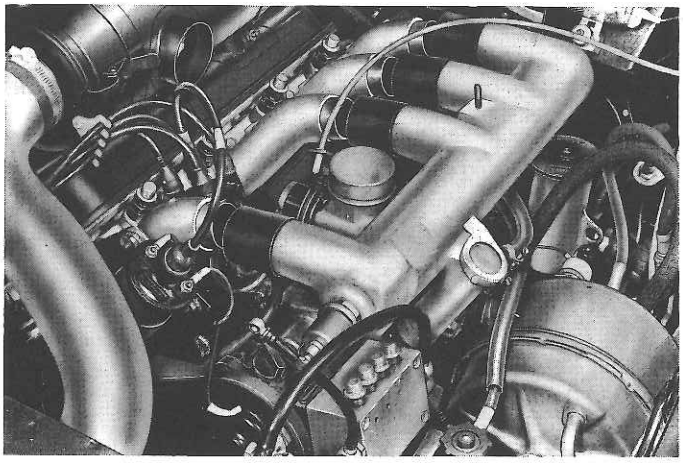
- Remove thermo plug
- Extract thermo plug seal and thermo plug
- Clean bearing surface in manifold
- Install new plug with new seal
- Install fixing parts.



Exchanging air valve

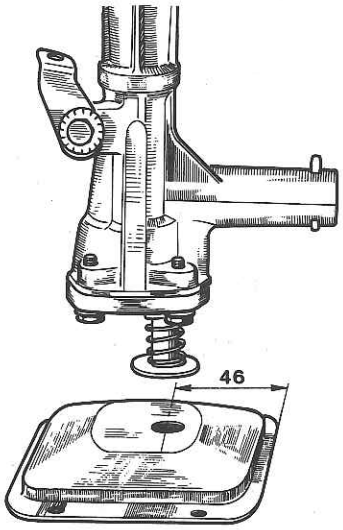
Sealing plug removed :

- Remove locknut and nut 1
- Extract control rod and spring from thermo plug
- Remove nut 2 and valve 3
- Fit a new valve
- Refit parts in the reverse sequence



Manifold reinstallation

- Bring. assy. in position, with control rod engaged in fork of richness lever.
- Engage rubber bushes over intake hoses and Mecanindus pins in injection pump.
- Fit air throttle body and manifold rear support.
- Install injection pipes with flanges and controls and piping.
- Connect battery, set for proper time.
- Proceed with adjustment 4
- Top up radiator and check thermo plug installation for leaks.

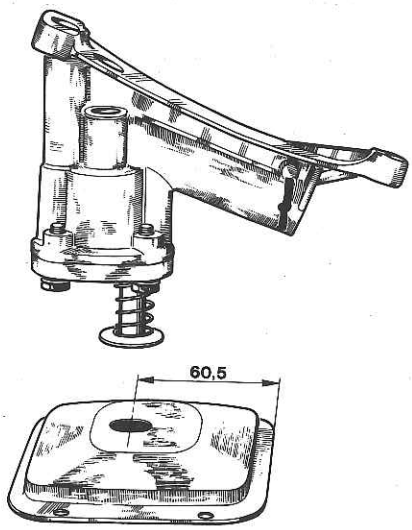


1st Fitting

As from serial-numbers :

404 KF - 4 550 001
404 C.KF - 4 590 001

- the oil pump is secured to the cylinder block at two points
- the oil intake hole is at 46 mm from the **R.H.** edge of the strainer

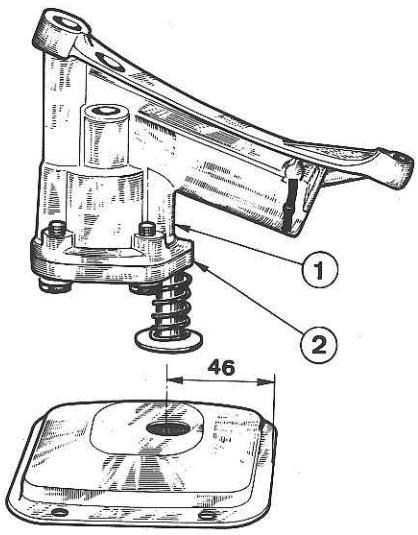


2nd Fitting

As from serial numbers :

404 KF - 4 557 001
404 C.KF - 4 592 001

- the oil pump is secured to the cylinder block at three points
- the oil intake hole is at 60.5 mm from the **R.H.** edge of the strainer



3rd Fitting

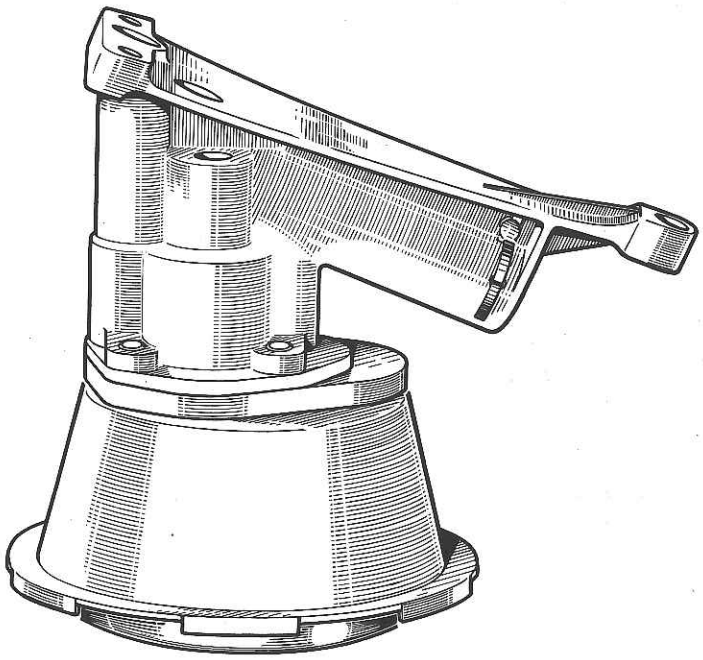
As from serial numbers :

404 KF - 8 227 881
404 C.KF - 4 599 631

the oil pump is secured to the cylinder block in the same way as it is for the 2nd installation. In order to improve lubrication when the oil level is minimum and also when cornering sharply, Body 1 together with closure plate 2 have been modified by offsetting the oil intake tube to the right.
Complete oil pump PN 1001.20
Oil filter PN 1046.49 is identical to that of the 1st fitting.

INTERCHANGEABILITY
The oil pumps of the 3rd fitting may be installed on the engines of the 2nd fitting on condition that the filter is replaced.

KF 2
OIL PUMP



4th Fitting

As from serial numbers :

404 KF - 8 247 538
404 C.KF - 6 802 058

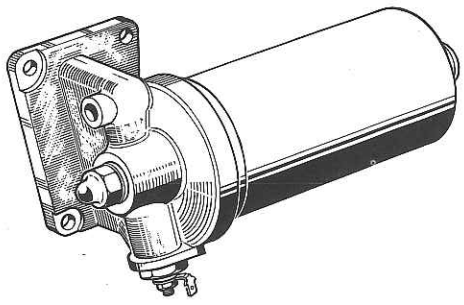
the oil pump is equipped with a cover on which a one piece strainer is set in.

This modification made it necessary to alter the following parts :

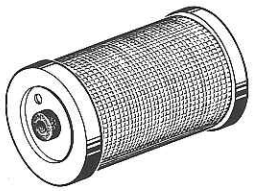
- a new oil sump having the same capacity but of a new shape, deeper and ribbed. (it has 18 attachment points in place of 17).
- an oil dip-stick of modified length (575 mm in place of 550 mm) in relation to the new sump.

INTERCHANGEABILITY

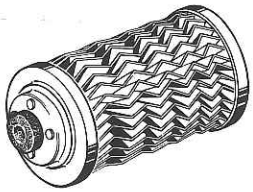
The oil pump of the 4th fitting may be installed to replace one of the 3rd fitting (on cylinder block incorporating **18** securing holes for the oil sump) on condition that the oil sump and the dip-stick are replaced.



1st Fitting



2nd Fitting



1st Fitting

Oil filter wire gauze cartridge (PN 1109.06)

Maintenance Intervals

Clean at 600 miles (1000 km) - 3000 miles (5000 km) and then every 3000 miles (5000 km)

2nd Fitting

As from serial numbers :

404 KF - 8 228 750
404 C.KF - 4 599 736

Purflux L 105C type cartridge having a herringbone pattern paper arrangement (PN 1109.10)

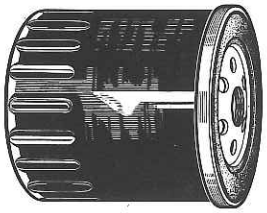
Maintenance Intervals

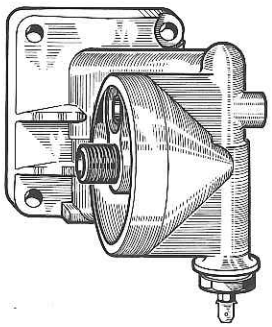
Clean the cartridge every 3000 miles (5000 km)

Replace the cartridge at 600 miles (1000 km) - 3000 miles (5000 km) - 6000 miles (10000 km) then every 6000 miles (10000 km).

INTERCHANGEABILITY

The cartridge of the 2nd fitting may be installed to replace the wire gauze cartridge on condition that the new maintenance intervals are observed.





3rd Fitting

As from serial numbers :

404 KF - 8 247 538
404 C.KF - 6 802 058

Oil filter with one piece cartridge type Easy-Change LS 152 (PN 1109.13)

Maintenance Intervals

Replace the cartridge at 600 miles (1000 km) - 3000 miles (5000 km) - 6000 miles (10000 km) and then every 6000 miles (10000)

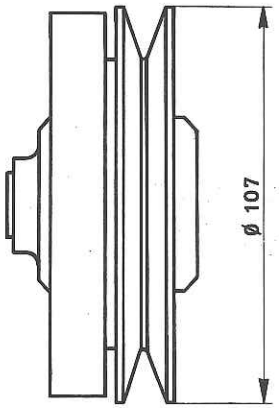
INTERCHANGEABILITY

The complete filter of the 3rd fitting (support, cartridge and seal) may be fitted to replace one of the 1st or 2nd fitting on condition that the injection pump lubricating pipe is replaced.

Cartridge Installation

The filter body incorporates, at its central part, a threaded sleeve on which the cartridge is secured

Engage the cartridge by hand until it abuts against the filter body then rotate it $\frac{1}{2}$ to $\frac{3}{4}$ of a turn.



WATER PUMP PULLEY

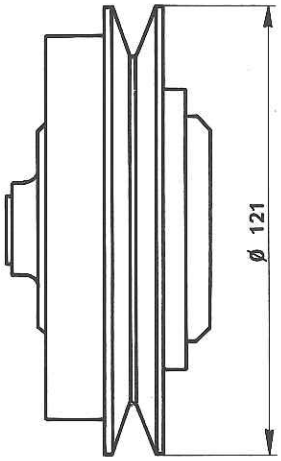
1st Fitting with Dynamo

Up to serial Nos :

404 KF 2 - 4.588.999
404 C.KF 2 - 4.596.999

Outer diameter of the water pump pulley is 107 mm.

P.N. 1250.17



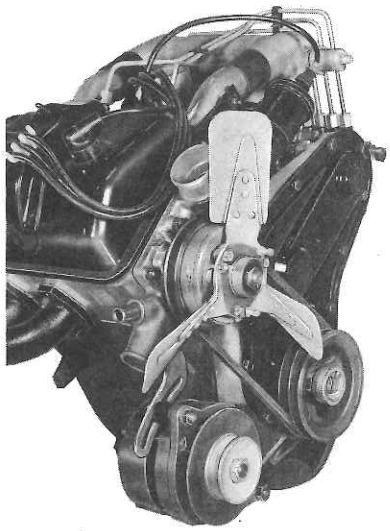
2nd Fitting with Alternator

As from serial Nos :

404 KF 2 - 4.589.001
404 C.KF 2 - 4.597.001

As a result of the crankshaft pulley diameter increase, 131 mm instead of 116 mm, the water pump pulley outer diameter is now 121 mm to keep the driving ratio at 1.088.

P.N. 1250.21



FAN BELT

Make : KLEBER COLOMBES

Maker's reference : 1065

Dimensions : 10 × 8

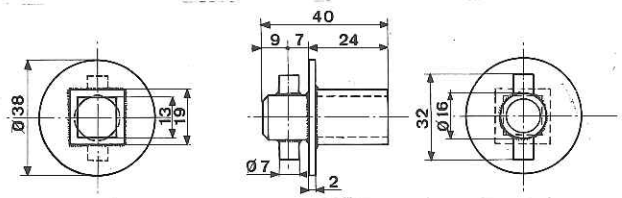
Without strength adjustment

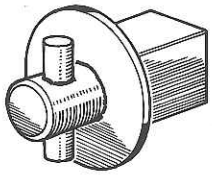
P.N. 1280.01

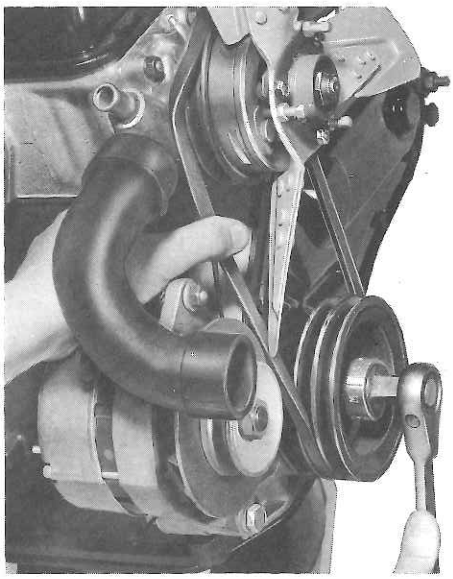
NOTE *- For alternator belt, see page 0209, category 12.*

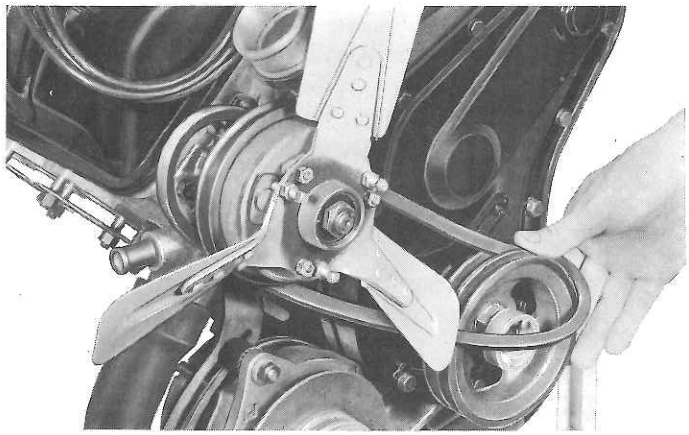
XC.KF 2

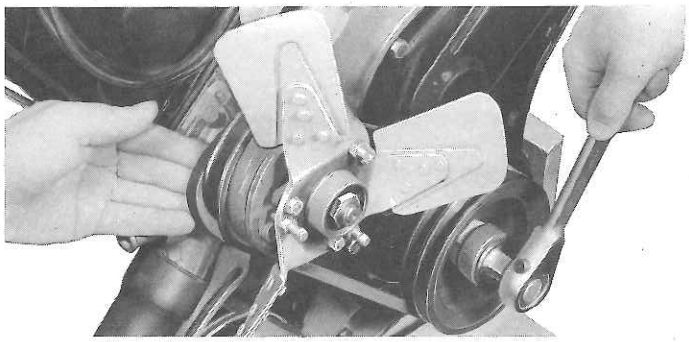
SELF-DISENGAGING COOLING FAN/BELT











BELT

IMPORTANT :

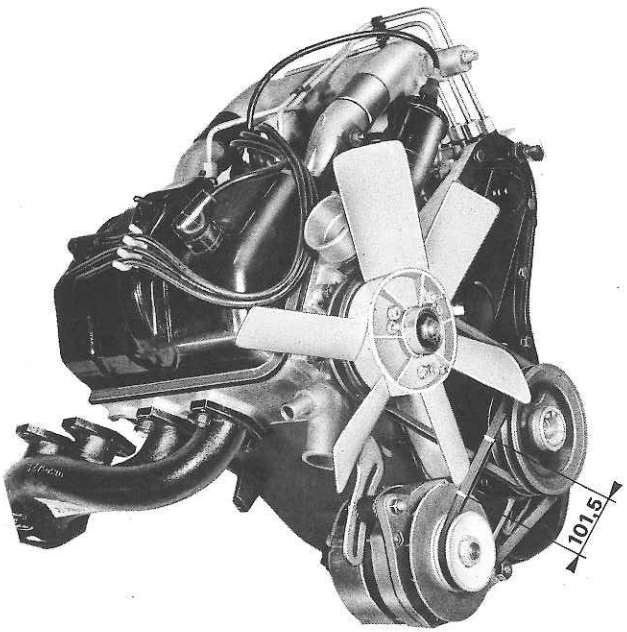
Never use a screwdriver or other object for removal or installation of self-disengaging fan belt. This could cause its damaging and involve its briefly breaking down.

Belt removal

- Put car on a pit or an elevator.
- Slacken rocking axis and tension bolt, then remove belt.
- Use either crank or pawl wrench fitted with a special cut piece to be made according to drawing : bushing N° **0.0129.**
- Push back fan belt lower side.
- Turn slowly crankshaft to disengage belt from pulley groove.
- Disengage belt from crankshaft.

Re-installation :

- Put belt behind self-disengaging fan pulley, install it on crankshaft.
- Rest lower side against self-disengaging pulley and turn slowly crankshaft.
- After re-installation of the alternator belt, adjust its tension at 1.5%.
  (see category 12, page 0209).



1st Installation with alternator

Both the alternator and the water pump are driven by means of two separate belts.

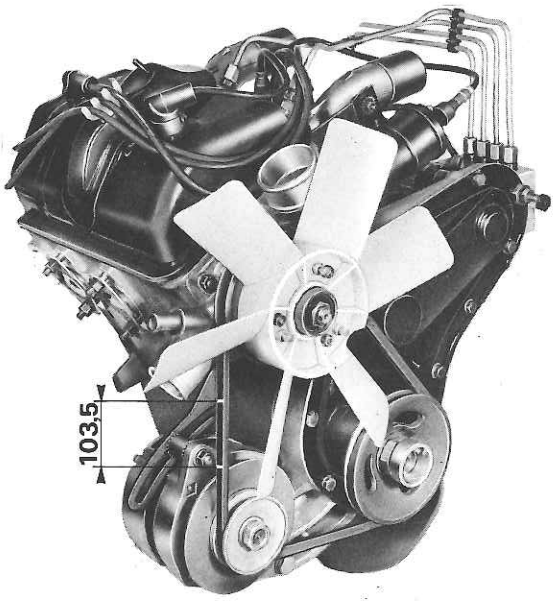
Installation and characteristics of water pump belt.

(See class 1 pages 15 01 and 15 02)

	Alternator belt :
Make	: Kleber-Colombes
Supplier reference	: 1015
P.N.	: 5750.18
Elongation not to be exceeded	: 1.5 %

Alternator belt installing

(See class 12 page 02 09)



2nd Installation with alternator

as from serial numbers :

404 KF2 - 8 239 302
404 C.KF2 - 6 800 743

both the alternator and the water pump are driven by means of one single belt instead of two separate ones.

	Alternator belt :
Make	: Kleber-Colombes
Supplier reference	: 1076
P.N.	: 5750.20
Elongation not to be exceeded	: 3.5 %

Apart from the belt, the second installation called for the alteration of the following :

- Crankshaft pulley with one groove
- Timing housing (alternator attachment modified)
- Sliding lug for belt tension adjustment
- Housing bolt (45 mm length instead of 55 mm)