PETROL FUMES

(2.4, 3.4 and 3.8 litre Mark 2 models)

In the event of a complaint of petrol fumes arising it should first be established under what conditions the fumes are noticeable.

Persistent fumes, irrespective of the amount of petrol in the tank, are generally traceable to a slight leakage at some part of the petrol system. Intermittent fumes, irrespective of the amount of petrol in the tank are usually caused by intermittent carburetter flooding.

If, however, the fumes are only noticeable when the tank is less than half full and when one or more windows are open, the complaint most probably arises due to fumes from the petrol cap vent being sucked into the car, in which case proceed as follows:-

Material required:

	Part No.	No. off
¼" UNF Grease nipple (Modified)	8353	1
Plastic tube 16¼" (42 cm) long	C.8244	1

Open the petrol filler box lid and remove the petrol filler cap.

Insert a piece of lint free cloth into the petrol filler pipe to collect any foreign matter when the filler pipe is drilled.

Using a No.3 .213" (7.69 mm) drill; drill a hole 13/16" (20.64 mm) from the top edge of the filler pipe as shown in Fig.1. Tap the hole ¼" UNF. Coat the drill and tap with grease as a precautionary measure against pieces of metal falling inside the filler pipe.

Remove the cloth from the petrol filler pipe, taking care

Continued...

to collect any foreign matter in the cloth.

Screw the modified grease nipple Part No. 8353 into the tapped hole in the petrol filler tube.

If the modified grease nipple is not available use a $\frac{1}{4}$" UNF grease nipple (Part No. C.3044/1) and grind away a little of the thread and remove the spring and ball.

Drill a $\frac{1}{4}$" (6.35 mm) hole in the floor of the petrol filler box as shown in Fig.2.

Drill a $\frac{1}{4}$" (6.35 mm) hole in the side panel above the exhaust pipes as shown in Fig.3.

Press a piece of plastic tube $16\frac{1}{4}$" (42 cm) long, Part No. C.8244, onto the grease nipple screwed into the petrol filler pipe, pass the plastic tube through the hole in the floor of the petrol filler box as shown in Fig.2. Pass the plastic tube through the hole in the side panel so that the end of the tube is facing away from the exhaust pipes as shown in Fig.3.

Blank off the two vent holes in the petrol filler cap with solder as illustrated in Fig.4.

Refit the petrol filler cap.

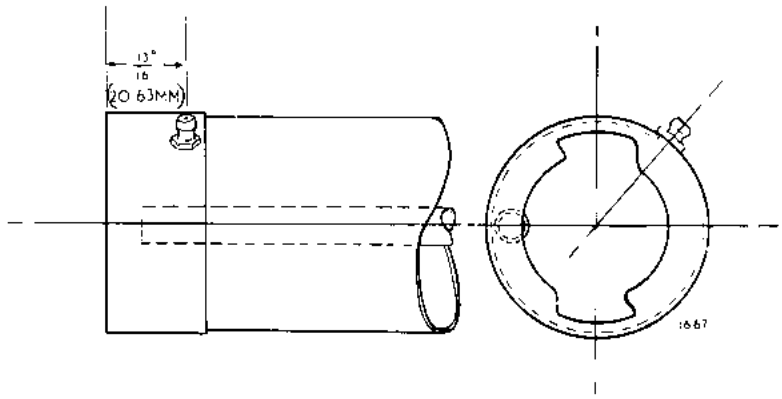


FIG 1

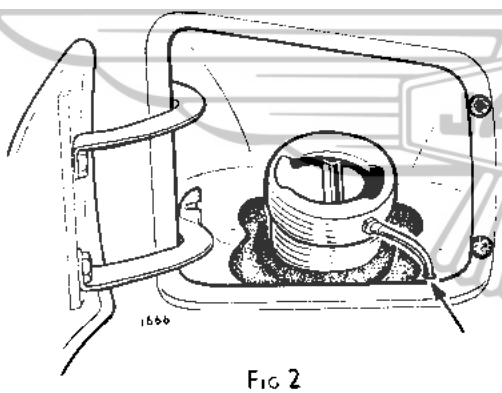


FIG 2

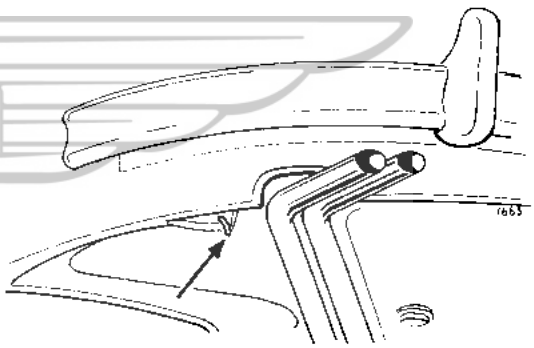


FIG 3

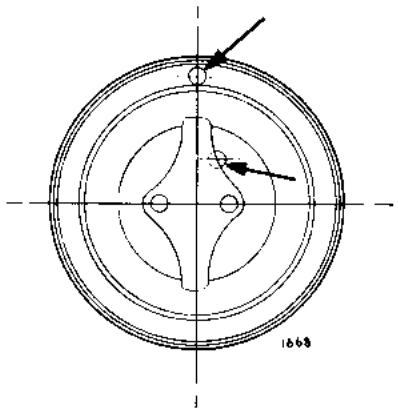


FIG 4

JAGUAR SERVICE BULLETIN

Number C.2
Section Carburetter and Fuel System
Sheet 1 (of 1)
Date July, 1960

PETROL FILLER BREATHER - PRODUCTION MODIFICATION

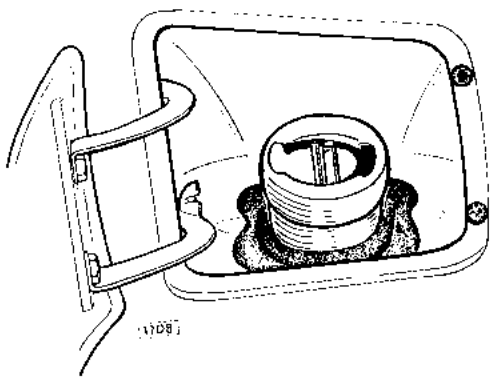
(2.4, 3.4 and 3.8 litre Mark 2 models)

A modification to overcome petrol fumes has now been incorporated in production and consists of a breather pipe in the filler neck (adjacent to the vent pipe) and a non-vented filler cap. Cars so modified can be easily identified by removing the filler cap and noting if there are two pipes in the filler neck as shown in the illustration below; previous type petrol tanks have a single vent pipe in the filler neck.

The service modification for overcoming petrol fumes as described in Service Bulletin C.1 should obviously not be carried out on cars which incorporate the above modification and if petrol fumes are present the cause should be sought elsewhere.

Furthermore, it is essential that a car without a service condition or production breather pipe is not fitted with a non-vented filler cap otherwise petrol starvation or weakness of mixture may result.

Non-vented filler caps can be identified either by the words "Non-vented" embossed on the filler cap or by noting if the hole(s) in the underside of the cap have been soldered up.



Number C.3 (2nd issue)
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date December, 1961

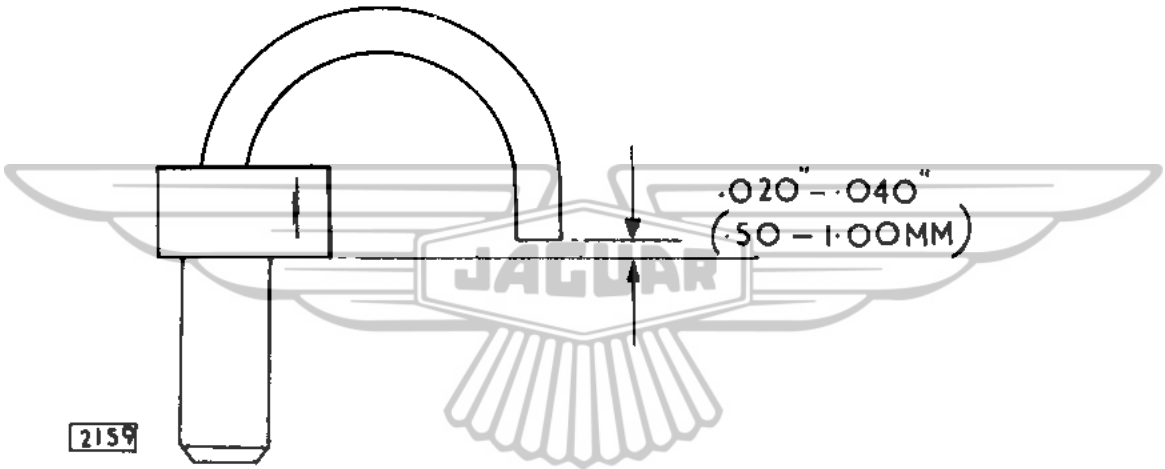
HEAVY FUEL CONSUMPTION

(2.4 litre Mark 2)

This Service Bulletin supersedes the original issue of Bulletin C.3. February, 1961 which should be destroyed.

In cases of heavy fuel consumption on 2.4 litre cars, the usual checks on choke levers, throttle synchronisation, timing, tuning, etc., should be carried out but in addition the accelerator pump discharge injector tube should be checked for correct positioning.

The position should be checked by placing a straight edge across the lower face of the mounting block and measuring the gap between the end of the tube and the straight edge as shown in the illustration overleaf. The correct gap should be .020" - .040" (.50 - 1.00 mm). If this dimension is not correct, remove the assembly and fit a replacement (Part Number 5032) taking care to refit the gasket under the base of the assembly and tighten the locating screw. The injector tube must not be bent as there is a danger of loosening the tube in the mounting block.



JAGUAR SERVICE BULLETIN

Number C.4
Section Carburetter and Fuel System
Sheet 1 (of 1)
Date March, 1961

FUEL PUMP STOPPAGES

(All models fitted with S.U. Fuel Pumps)

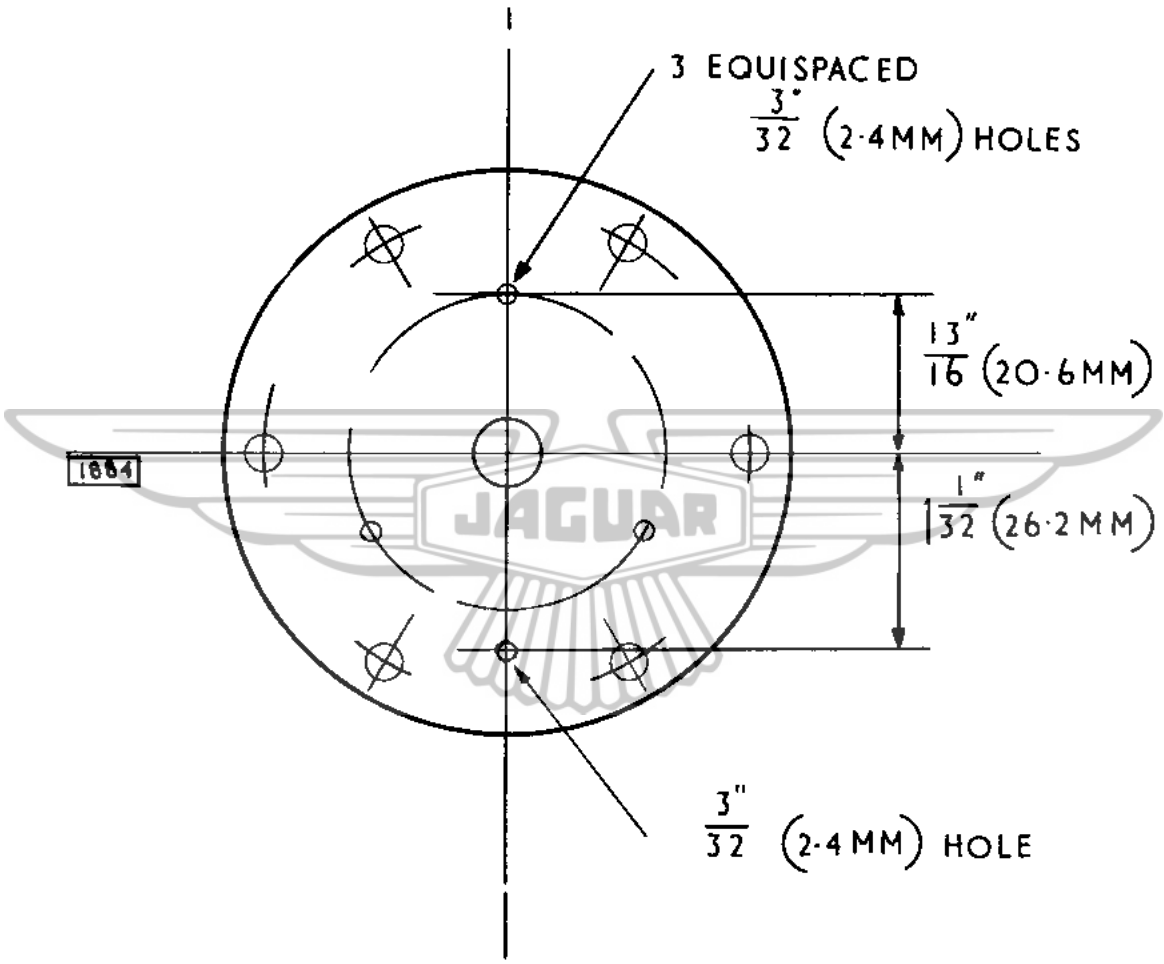
If failure of the fuel pump is experienced early in its life it may be due to initial settling resulting in variation of the diaphragm setting, thus restricting the "throw-over" of the toggle mechanism.

Before assuming the pump is faulty, the setting of the diaphragm should be re-checked as described on page C.22 of the 2.4/3.4 litre Service Manual, except that a "four holes back" setting should be used.

The "five to six holes back" setting recommended in the Service Manual should be used when a new contact breaker is fitted.

Whilst the pump is dismantled it is also advisable, particularly in hot climates, to pierce the upper diaphragm only (that is, the one next to the rollers) as shown in the sketch overleaf.

/Continued...



Number C.5
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date June, 1961

SHORT BODY S.U. FUEL PUMPS

Models affected	Commencing Chassis Numbers	
	R.H. Drive	L.H. Drive
2.4 litre Mark 2	106395	126248
3.4 litre Mark 2	154030	176828
3.8 litre Mark 2	203318	216064
Mark IX	775894	793867

On cars with the above chassis number and onwards a modified fuel pump is fitted.

The new pump has a shorter coil housing than the original type. The new coil housing is approximately $2\frac{1}{4}$" (57.1 mm) in length as against $2\frac{3}{4}$" (69.8 mm) of the previous type.

The servicing of the new type of pump is the same as for the previous type except that the diaphragm setting, when new contacts are fitted, should be "seven holes back" and not "five to six" as recommended in Service Bulletin number C.4.

For the parts breakdown of the new petrol pump see Spares Bulletin number Q.20.

JAGUAR

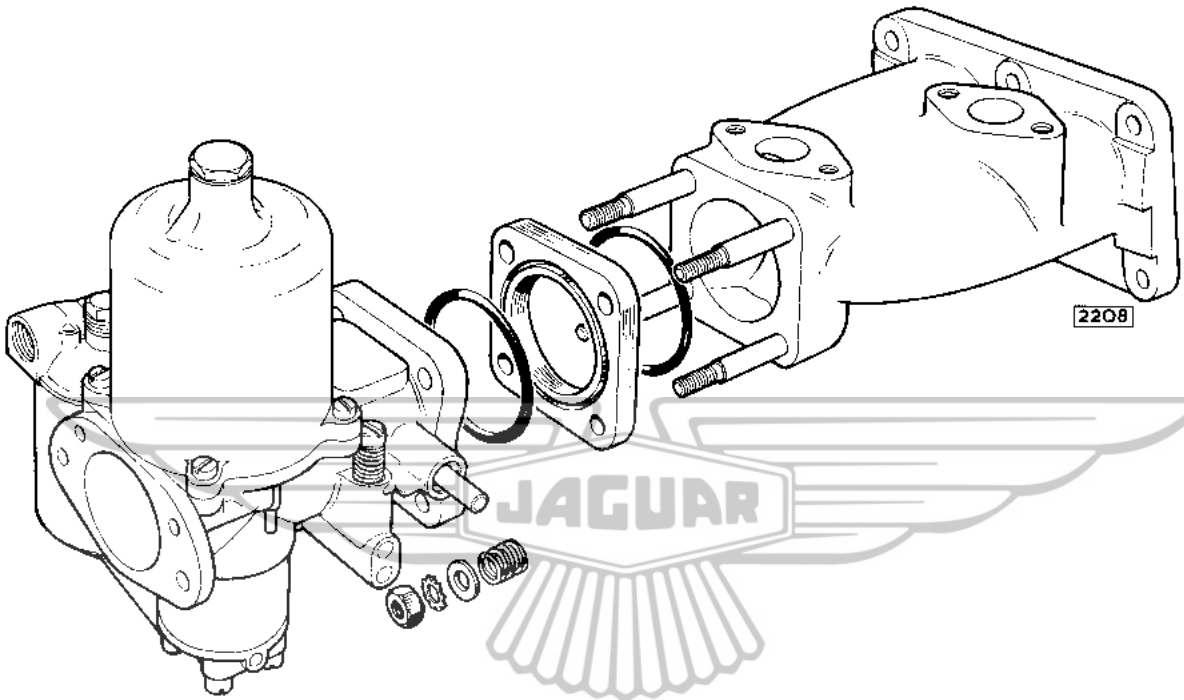
SERVICE BULLETIN

Number C.8.
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date January, 1962

FUEL TANK FILLER CAP

(Mark 1 and Mark 2 Models)

The rubber washer fitted to the fuel tank filler cap has been replaced with a cork composition washer. This washer retains the same part number (8421) and is interchangeable with that fitted previously.



JAGUAR SERVICE BULLETIN

Number C.10.
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date June, 1962

IMPROVED DIAPHRAGM AND OPERATION OF THE S.U. PETROL PUMP

Models affected	Commencing Chassis Numbers	
	R.H. Drive	L.H. Drive
2.4 litre Mark 2	126777	112791
3.4 litre Mark 2	178153	159939
3.8 litre Mark 2	220992	208402

On cars with the above chassis numbers and onwards, an improved fuel pump (S.U. number AUB.152) is fitted. The diaphragm incorporates a protective backing to improve reliability and prevent leakage. The diaphragm is interchangeable with the earlier type. A modified rocker arm to reduce noise from the pump is also fitted and is interchangeable with the earlier type.

Spares Bulletin number Q.42. refers.

JAGUAR SERVICE BULLETIN

Number C.13.
Section Carburetter and Fuel System

Sheet 1 (of 1)
Date March, 1963.

INTRODUCTION OF MODIFIED FUEL PUMP DIAPHRAGM

TO OVERCOME FAILURE TO OPERATE AT LOW TEMPERATURES.

(Mark 2 Models).

Cars with the AUB 152 type fuel pump (see Service Bulletin C.10) now have a modified type diaphragm (Part No. 9098 unchanged) "B" on the illustration overleaf. This diaphragm has a single neoprene leaf (Item 1) and a translucent plastic leaf (Item 3) and must be fitted with a gasket (Item 4) at each side of the diaphragm. Two gaskets will be supplied with each diaphragm.

The earlier diaphragm ("A" on illustration) has two neoprene leaves (Item 1 and 2) and a translucent plastic leaf (Item 3). This type of diaphragm had only a single gasket (Item 4) fitted.

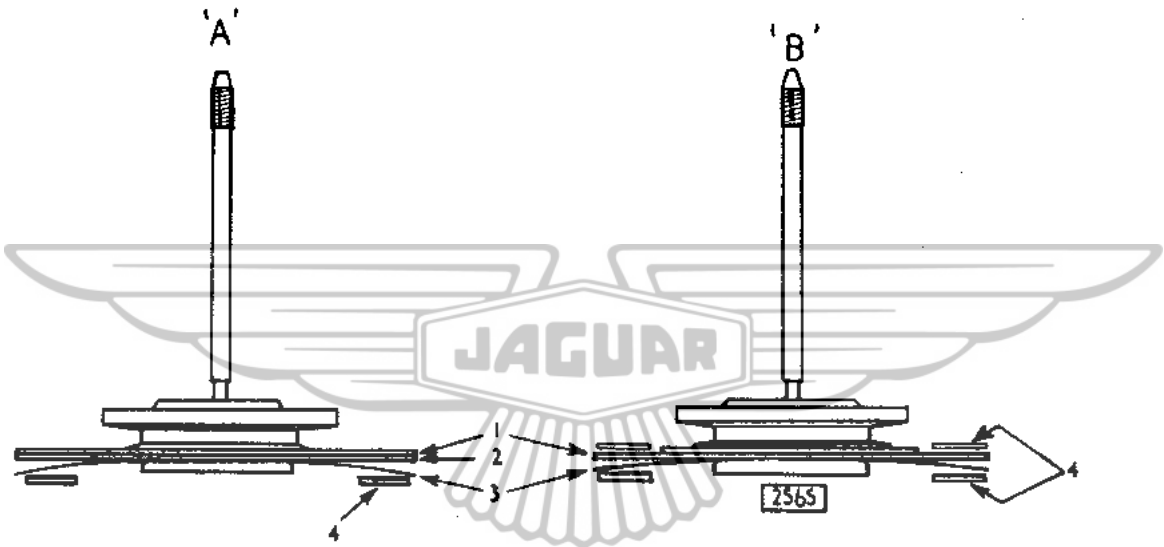
Fuel pumps with the single layer diaphragm can be identified by X6 or subsequent numbers stamped on the top of the valve body adjacent to the flange of the coil housing.

If on cars prior to the introduction of the new diaphragm trouble is experienced with the pump failing to operate at temperatures below $-7^{\circ}C$ ($22^{\circ}F$) either the latest type pump or the new single leaf diaphragm should be fitted.

If a new diaphragm is fitted it must be adjusted in accordance with the instructions given on pages C.22 and C.23 of the Mark 2 Service Manual except that the diaphragm must be backed off (unscrewed) 7 holes and not 5-6 as stated in the manual.

Note: It may be possible to start the pump if this trouble is experienced, by leaving the ignition switch on for 2-3 minutes before starting the engine. If failure to start is still experienced, switch off the ignition for a further 2-3 minutes before trying again. (With the ignition switched on, the coil of the pump becomes energized and sufficient warmth is generated to impart flexibility to the diaphragm).

Spares Bulletin No. Q.55 refers.



JAGUAR SERVICE BULLETIN

Number C.23.
Section Carburetters and Fuel System.

Sheet 1 (of 1)
Date May, 1964.

INTRODUCTION OF NEW TYPE FUEL PUMP.

Models affected.	Commencing chassis numbers.	
	R.H.Drive.	L.H.Drive.
2.4 litre Mark 2	117610	127550
3.4 litre Mark 2	166654	179855
3.8 litre Mark 2	232676	223683

Commencing with the above chassis numbers Mark 2 models are fitted with the same type of fuel pump (AUF 301) as fitted to the 3.4 and 3.8 'S' models.

This type of fuel pump is described and illustrated in Service Bulletin C.21.

JAGUAR SERVICE BULLETIN

Number C.25.
Section Carburetters & Fuel System.

Sheet 1 (of 1)
Date April, 1965.

CHANGING OF S.U. PETROL PUMPS.

In a great number of cases where petrol pumps have been changed to overcome fuel supply troubles, there has on investigation found to be nothing wrong with the pumps returned.

In the event of trouble with the fuel supply no attempt should be made to change the pump or to clean the internal filter until other possible causes such as blockage of the tank breather mentioned below have been investigated.

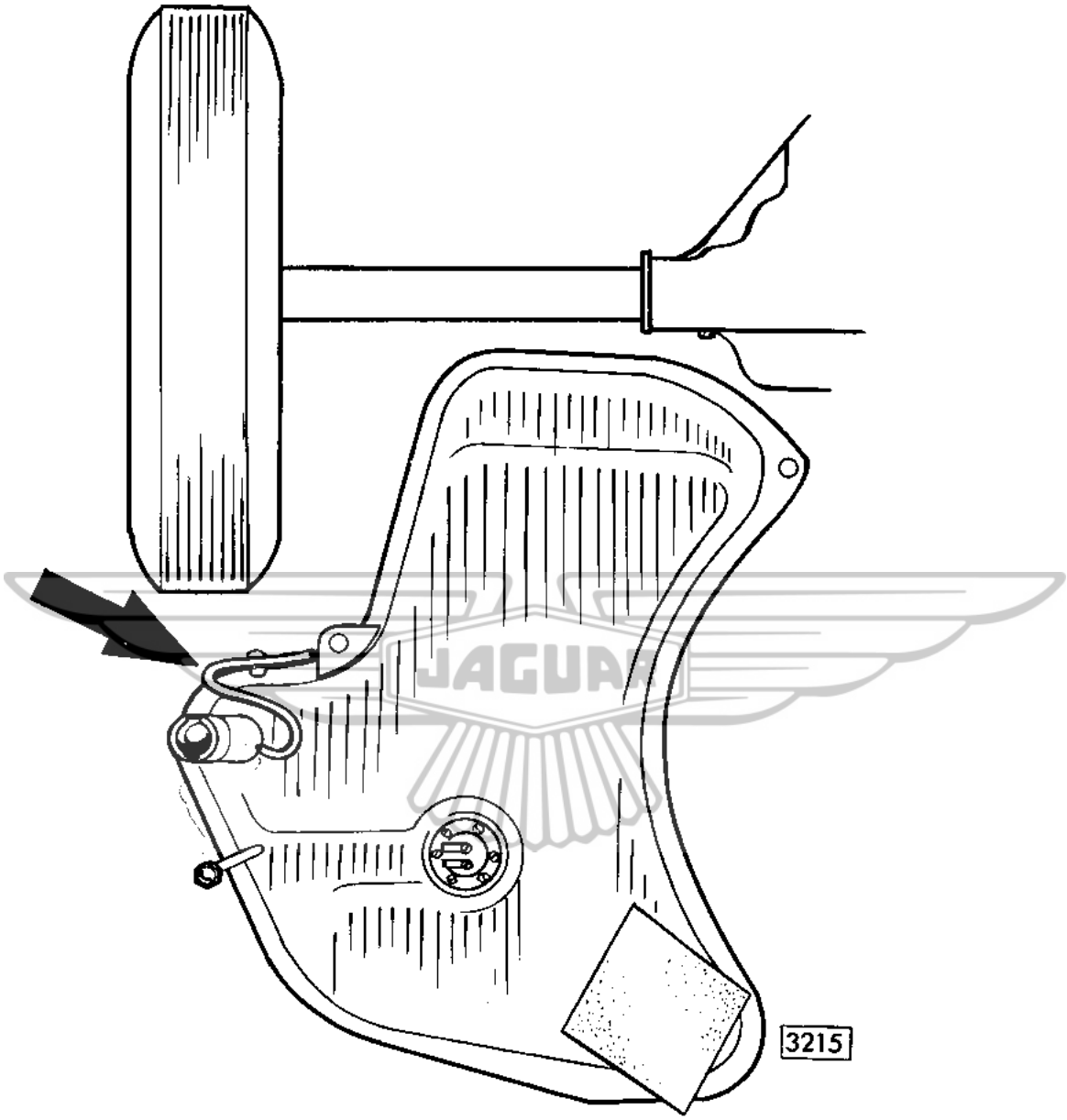
In future, no warranty claims will be met against petrol pumps returned as faulty if on examination nothing is found to be wrong with them.

PETROL STARVATION DUE TO BLOCKAGE OF PETROL TANK BREATHER.

(Mark 2 Models)

Cases have been experienced of petrol starvation due to the petrol tank breather becoming blocked with road dirt and also water entering the tank through the breather pipe.

In this event the breather pipe should be cleaned and if positioned to rear of the filler neck the pipe should be re-routed to the front and clipped to the petrol tank flange as shown in the illustration.



INTRODUCTION OF "VITON" TIPPED FLOAT NEEDLES.

Models affected.	Commencing engine numbers.
3.4 litre Mark 2	KJ. 6767
3.8 litre Mark 2	LE. 2031
3.4 'S' Model	7B 3392
3.8 'S' Model	7B 55353
4.2 Mark 10	7D 50651
4.2 'E' Type	7E 2226

On cars with the above engine numbers and onwards Viton tipped needles are fitted to the carburetter float chambers. These needles are easily recognised as they have a black rubber tip.

The part number of the needle and seat assembly is 10532 (S.U Part number AUD 9285).

If used as replacements for the previous needle and seat they must be fitted together.

PETROL PUMP WASHERS.

Models affected.

2.4 litre Mark 2
3.4 litre Mark 2
3.8 litre Mark 2
3.4/3.8 'S'
4.2 Mark 10
4.2 'E' Type.

AUF 301 series petrol pumps are now fitted with rubber seals (Part number 10767) for the valves and filter in place of the cork washers (Part number 10187) used previously. Pumps so modified are marked B.4.

If valve trouble is experienced or if a pump with cork washers is being overhauled the latest type of rubber washers should be fitted.

PETROL FILTER - REPLACEABLE ELEMENT

Models affected	Commencing Chassis Numbers R.H.D.	L.H.D.
420G	GID.54718	GID.77398
420	1F.5382	1F.27057
240	1J.1429	1J.30013
340	1J.50480	1J.80071
3.4 litre 'S' Type	1B.8876	1B.26244
3.8 litre 'S' Type	1B.59558	1B.80300
4.2 'E' Type - Open Sports	1E.1905	1E.16057
4.2 'E' Type - F.H.C.	1E.21662	1E.34772
4.2 'E' Type - 2 + 2	1E.50143	1E.77701

Commencing at the above chassis numbers, the petrol feed line filter unit mounted in the engine compartment incorporates a renewable filter element in place of the filter gauze previously fitted.

The new type of element should not be cleaned but must be renewed at the Routine Maintenance period stated below.

ROUTINE MAINTENANCE

EVERY 6,000 MILES (10,000 KM.)

Remove the filter bowl, wash in petrol, and refit.

Examine the sealing washer and, if necessary, fit a new one.

NOTE: The filter bowl should be cleaned more frequently if sediment build-up is excessive due to poor petrol storage conditions.

EVERY 12,000 MILES (20,000 KM.)

Remove the filter bowl, withdraw and discard element.

Check condition of element and bowl sealing washers, renew if necessary, fit new element, and reassemble.

NOTE: The filter element should be changed more frequently if sediment build-up is excessive due to poor petrol storage conditions.

CHOKE CONTROL CABLE
(240 - Left Hand Drive)

Commencing at Chassis Number 1J.30411, a revised choke control cable is introduced on Jaguar 240 L.H.D. cars.

This new control which comprises an acetal resin lined outer casing and a stranded inner cable, gives improved operation of the carburetter choke.

If complaints are received of stiff or sticking movement of the control lever on the facia panel which is traceable to the cable, it is recommended that the new cable, obtainable under Jaguar Part Number C.30494, is fitted.

The new cable is fully interchangeable with its predecessor.