F O R E W O R D

The purpose of this manual is to supply a brief description of car's specifications together with general information on its assemblies for normal driving and servicing operations.
If you wish to obtain the best from your car in running costs, length of life and in reliability of performance, you should follow our instructions. For operations which cannot be easily carried out at the owner's garage without special tools and equipment, we advise our customers to refer to our dealers' workshops where any overhaul and repair services will be promptly and properly carried out.
In order to ensure the best performance of your car, original spare parts must be fitted.

CAR IDENTIFICATION

Each car is marked with its own identification number of its type

AM 107/A ☆ ..... ☆

which is stamped on the left side of the cross member, between two stars as Manufacturer's mark.
The engine's serial number is stamped on the clutch bell housing near the starter motor. These identification numbers are also stamped on the name plate, which is readily visible in the boot and are the only numbers legally recognised when the car is sold. They are copied on the certificate of origin and on the car's log-book.

MAIN SPECIFICATIONS AND DATA

M O T O R

Number of cylinders	8 90°V
Bore and stroke	88 x 85 mm.
Capacity per cylinder	517 cmc.
Total capacity	4136 cmc.
Maximum power at 5200 r.p.m.	260 HP DIN
Compression ratio	8.5
Combustion chamber volume	68.933 cmc.

Cylinder block in light alloy with special cast iron liners.
Cylinder heads in light alloy with overhead valves and inserted valve seats.
Hemispherical combustion chambers.
Crankshaft dynamically and statically balanced, with five main bearings and lead-lithium bearing shells.
H-pressed steel connecting rods; big end bearings with lead-lithium shells; small end bearings with bronze bushes.
Light alloy pistons with two compression rings and two scraper rings.
Light alloy intake manifold with water circulation to heat the fuel mixture.

T I M I N G

By inclined overhead valves controlled by four overhead camshafts which are driven through two double chains with adjustable tensioner, and through a triple chain with automatic tensioner.
The camshafts control directly the valves via cast iron cups.
Adjustment is made possible by means of autotempering steel plates.
With a normal cold clearance between caps and cam lobes of 0.15 mm. for the inlet valves, and of 0.35 mm. for the exhaust valves, the following data are obtained:

Inlet valve lift at T.D.C.	1.7 – 1.8 mm.
Exhaust valve lift at T.D.C.	1.8 – 1.4 mm.

LUBRIFICATION

Lubrification is of the forced-oil type on all engine components. It is supplied by means of one concentric gear-type pump directly driven by the crankshaft.
The pump sucks oil from the oil sump and, after a full flow through a filter, forces it to the components to be lubricated.
The two filter cartridge are contained in a heat exchanger in which the cooled water from the radiator and the oil to be filtered circulates inside flat copper ducts.

The heat exchanger has two purposes:

1. It helps to warm up the oil in cold climates when water diverted by the thermostat does not pass through the radiator.
2. It lowers the oil temperature in hot climates by means of the cooled water from the radiator.

The oil filter is located at the front end of the crankcase and can be readily dismantled.
The normal oil pressure varies between 43 and 72 psi depending on the engine speed.
This pressure can be adjusted by means of the relief valve which is built into the filter.
The oil is supplied through the tank filler, and its level can be checked with a dipstick which is fitted on the left side of the oil sump.
The oil capacity is approx. 16 pints.

COOLING SYSTEM

The engine is water-cooled and the cooling system is provided with a centrifugal circulation pump and two electric fans which are controlled by two thermocouples fitted on the radiator; the fans are switched on at a temperature of about 168°F - 188°F.
Water flow through the radiator is automatically controlled by one thermostat fitted on the cylinder heads. This device ensure the warming up of the engine, especially when it is started from cold. The water temperature can be checked by means of an indicator fitted on the dashboard and connected to a thermocouple fitted on the cylinder head.
The water temperature must not be higher than 212°F.
A water drain tap is provided at the bottom header of the radiator.
Total quantity of cooling water: 24.6 pints. As the car heater radiator is located very close to the air conditioner evaporator, in order to prevent the water from freezing thus bursting the tubing, some anti-freeze mixture is added to the water so that its freezing point is reduced to + 12°F.

IGNITION SYSTEM

The ignition is controlled by a distributor fitted at the front right-hand side of the engine.
The BOSCH distributor is of the automatic timing type, and its shaft rotates counter-clockwise when viewed from the top.
The static advance is 8° which is equal to a piston stroke of 0.021".
Automatic advance: 30° (on crankshaft).
Total maximum ignition advance: 38° (on crankshaft).
Cylinder firing order: 1 - 8 - 4 - 2 - 7 - 3 - 6 - 5.
Clearance between points of contact breaker: 0.4 mm.
Clearance between points of spark plug: 0.5 mm.
Diameter and pitch of the long thread: 14 mm x 1.25 mm.
Coil: MARELLI heavy-duty.

Medium-duty spark plugs:	BOSCH 215 P BOSCH W225 T 28 AUTOLITE AG 2
Heavy-duty spark plugs:	BOSCH 235 P BOSCH W240 T 28 AUTOLITE AG 12

FUEL SYSTEM

Four WEBER 38 DCNL 5 carburettors: updraft-duplex type, with choke starting device and accelerating pump.
Air intake cleaner, fitted underneath right hand front wheel arch, with paper element.

Choke tube diameter	30 mm.
Main jet diameter	1.20 mm.
Pilot jet diameter	0.50 mm.
Air jet diameter	1.80 mm.

The two fuel tanks, which are located at the rear sides, are fully independent, each of them being fitted with its own filler and Bendix feed pump.
The delivery of each feed pump is connected into a single tube through two check valves.
On the feed single tube, before the fuel reaches the carburettors a filtering valve is provided. This valve also ensures a constant pressure of 2.1 psi. This device is provided for the purpose of limiting and regulating the feed pressure to carburettors so that the level inside each bowl is kept constant at any engine speed.

ENGINE MOUNTING

The engine is offset to the right by 1 cm. and is supported by three "silentblocs" two under the engine and one under the gear-box.

Longitudinal inclination is 1° 52'.

CLUTCH

Single dry plate diaphragm spring clutch, hydraulically operated by a master cylinder on the pedal and an operating cylinder on the clutch itself, respectively of 3/4" and 7/8".

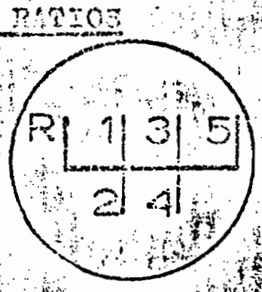
Pedal stroke is adjusted by a nut on the operating cylinder.

GEARBOX

5 speeds, all synchromesh, and reverse, constant mesh gears. Direct acting gear lever fitted at the center on the top of the box. To check the oil level in the gear box a long pine arrive under bonnet. The dipstich, that is not signed, must touch oil only at the end.

FIVE SPEED GEARBOX S5 325 RATIOS

1st speed	0,366	=
2nd speed	0,568	=
3rd speed	0,812	=
4th speed	1	=
5th speed	1,174	=
Reverse	0,359	=



Position of gear in Box S5325

REAR AXLE

Hypoid bevel gears differential casing connected to the chassis by means of rubber dumping blocks.

Normal ratio	13/46	=	3.54	= 0.28
Can be replaced by:	13/49	=	3.77	= 0.255
	13/43	=	3.31	= 0.302
	11/45	=	4.09	= 0.244

CAR PERFORMANCES

Final drive ratio 13/46 = 0.2825 = 3.54.
Tyres: 210 x 15" - roll radius 2.10 m.

ROAD SPEED DATA KPH - S520 GEARBOX

engine r.p.m.	1st gear 3.0	2nd gear 1.705	3rd gear 1.24	4th gear 1	5th gear 0.85
1000	7	13	18	22	26
1500	10.5	20	27	32	39
2000	14	26	36	44	52
2500	18	33	45	55	63
3000	21	39	54	66	78
3500	25	45	73	77	91
4000	28	52	81	88	104
4500	32	59	90	99	117
5000	35	63	99	110	130
5500	39	71	101 ?	121	145
6000	45	78	110	130	160

At higher road speed, the data of the above table should be multiplied by a coefficient for the increase of tyre volume caused by centrifugal force.

C H A S S I S

Front track (measured at the ground)	1390 mm.
Rear track (measured at the ground)	1397 mm.
Wheelbase	2750 mm.

The chassis is made of steel tubular sections and pressed, box type steel sheet.

W E I G H T S

Maximum weight allowed on each axle with 205 x 15" tyres	1250 Kg.
Unladen car weight	1650 Kg.
Car kerb weight	1600 Kg.

AUTOMATIC TRANSMISSION

This car can be fitted with the BORG WARNER type 8 automatic transmission. The shift lever is centrally fitted and has the following control position:

P Parking position with locking action on wheels.

R Reverse gear position, in which the rear lamps are switched on. Transmission ratio 1 : 2.

N Neutral position - the car can be pushed or towed.

D2 Driving position with one automatic change in direct drive. Transmission ratio 1 : 1.47.

D1 Driving position with two automatic changes in direct drive. Transmission ratios 1 : 2.40 and 1 : 1.47.

L Slow driving position to be used for town or mountain driving; there is no automatic change in this position and the transmission ratio is 1 : 2.40. It is advisable to use this position only when required in order to avoid prolonged running of the engine at high speed.

The engine can be started in P or N position only.

The fluid used in the automatic transmission is AGIP ROTRA ATF.

The fluid dipstick is fitted at the right side of the engine and the transmission sump capacity is approx. 15.8 pints.

It is advisable to change the oil after each 12.000 miles.

It is also recommended not to keep the engine running at over 5000 r.p.m. for long time.

PERFORMANCE OF THE CAR EQUIPPED WITH AUTOMATIC TRANSMISSION

(ON ORDER)

Normal axle ratio 13/43 = 3,31 = 0,302

Tyres: 205x15" Average circumference 84 inches

SPEED - MILES/H

Engine revs.	POSITION L	POSITION D1			POSITION D2	
	2,40	2,40	1,47	1	1,47	1
1000	10	10	16	23	16	23
1500	15	15	24	34	24	34
2000	20	20	32	46	34	46
2500	25	25	40	57	40	57
3000	30	30	48	69	48	69
3500	35	35	56	80	56	80
4000	40	40	64	92	64	92
4500	45	45	72	103	72	103
5000	50	50	80	115	80	115
5500	55	55	88	126	88	126
6000	60	60	106	138	106	138

At hight speed the above specifications are to be multiplied by the expansion coefficient which is caused by the centrifugal force.-

FRONT SUSPENSION

Unequal length wishbone suspension, with coil springs, RIV telescopic shock absorbers and stabilizer.

REAR SUSPENSION

Longitudinal leaf springs with two double acting telescopic shock absorbers.
A transverse stabilizer is also provided to avoid roll on cornering.

STEERING GEAR

The steering box is of the recirculatory ball type, with adjustable play: it is controlled by a steering column, with a flexible joint which absorbs vibrations.
The steering rods are of a symmetrical type, with idler box.
The steering wheel driving position can be adjusted by means of a slide which is locked by a knob.
The normal driving position is on the left-hand side, but it can be provided also on the right-hand side.

HYDRAULIC STEERING SERVO-CONTROL (Optional)

The Z.F. Steering Gear with hydraulic Servo-Control is of the recirculatory ball type, actuated by an engine-driven hydraulic pump.
This system provides the following advantages:
Play-free steering action: immediate hydraulic servo-control; possibility of adjustment; road sensitivity; possibility of driving without servo-control when this is damaged.
The horsepower absorbed by the pump is proportional to the engine speed and to the steering fluid pressure in relation to the steering effort; in normal working conditions the pump absorbs 1.5 HP approximately, whereas on uneven roads or sharp turns it may require 5-6 HP.

B R A K E S

The braking system, with two master cylinders, has two independent fluid circuits; one for the front wheels and the other one for the rear wheels. The braking action is assisted by two Girling vacuum boosters with vacuum bottle.
The front disk brakes are fitted with 294 mm diameter disks and provide a braking surface of 2000 sq. cms; they are actuated by a Girling 3 C master cylinder and 3 wheel cylinder which provide a total working surface of 57.5 sq. cms.
The rear disk brakes are fitted with 278 mm. dia. disks and provide a braking surface of 1500 sq. cms; they are actuated by

provide a total working surface of 36.3 sq. cms.
The brake pads are automatically compensated for their wear play.
The rear brakes are mechanically connected with the hand brake lever which can be used for parking purposes only.

STEERING GEOMETRY

The toe-in measured on rims, at hub centre height, is between 0 and 2 mm.
The camber angle is 1°.
The castor angle is 2°.
The king pin angle is 7°30'.

T Y R E S

Pirelli Cinturato HS, 205 x 15".

Tyre pressures, from cold condition for a max. speed of 150 Km/h	front	1.9 Kg/sq.cm.
	rear	1.9 Kg/sq.cm.
Tyre pressures, from cold condition for not constant speed higher than 150 Km/h	front	2.5 Kg/sq.cm.
	rear	2.5 Kg/sq.cm.
Tyre pressures, from cold condition, for constant speed, on motorway, of 200 Km/h	front	2.8 Kg/sq.cm.
	rear	2.8 Kg/sq.cm.

WARNING: THE ABOVE PRESSURE DATA ARE SPECIFIED AS MINIMUM AND AS SUCH MUST ABSOLUTELY BE MAINTAINED.

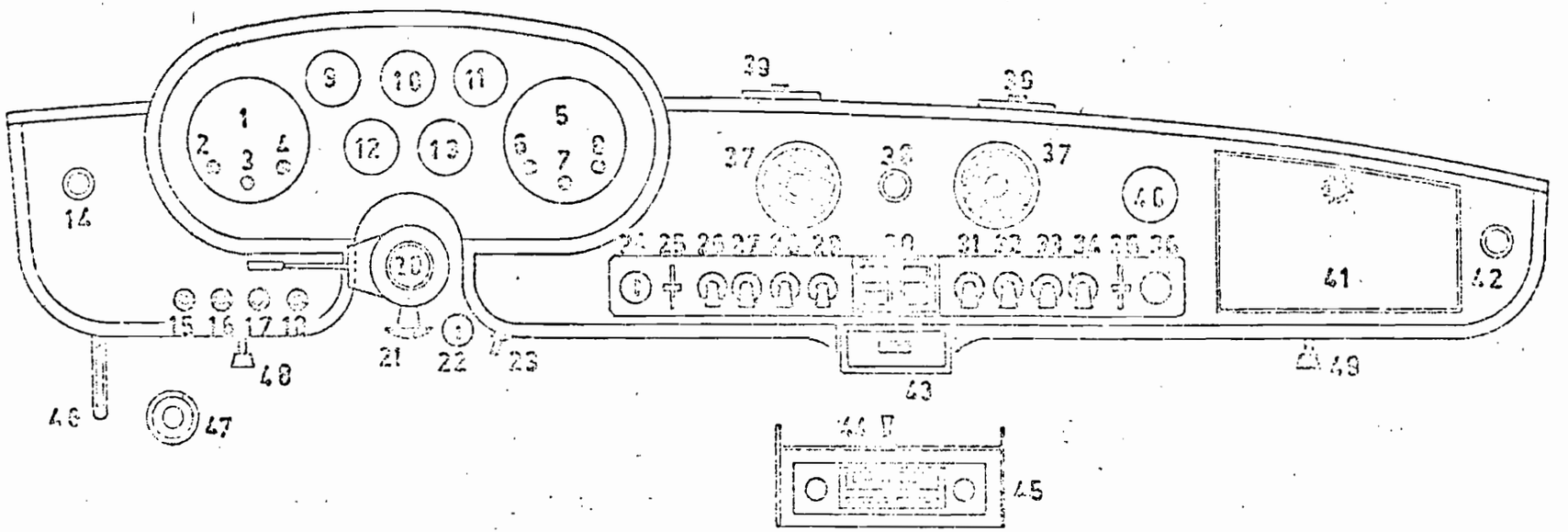
ELECTRICAL EQUIPMENT

Battery: It is located in the luggage boot, beside the spare wheel. Capacity 72 amp/h. voltage 12 volts.
Alternator: BOSCH with mechanical voltage control. It is fitted on the left side of the engine and driven by the crankshaft through an adjustable V belt. Output 400.
Starter motor: 1.8 HP. BOSCH type.
Horns: Two FIAMM air horns with electromagnetic compressor; with push button control on steering wheel. A normal horn is also fitted, and this can be switched on/off by the same change-over lever which controls lights and direction indicators.
Fuse Box: It is fitted with 12 fuses and located at the right-hand side of the bonnet.

STARTING MOTOR

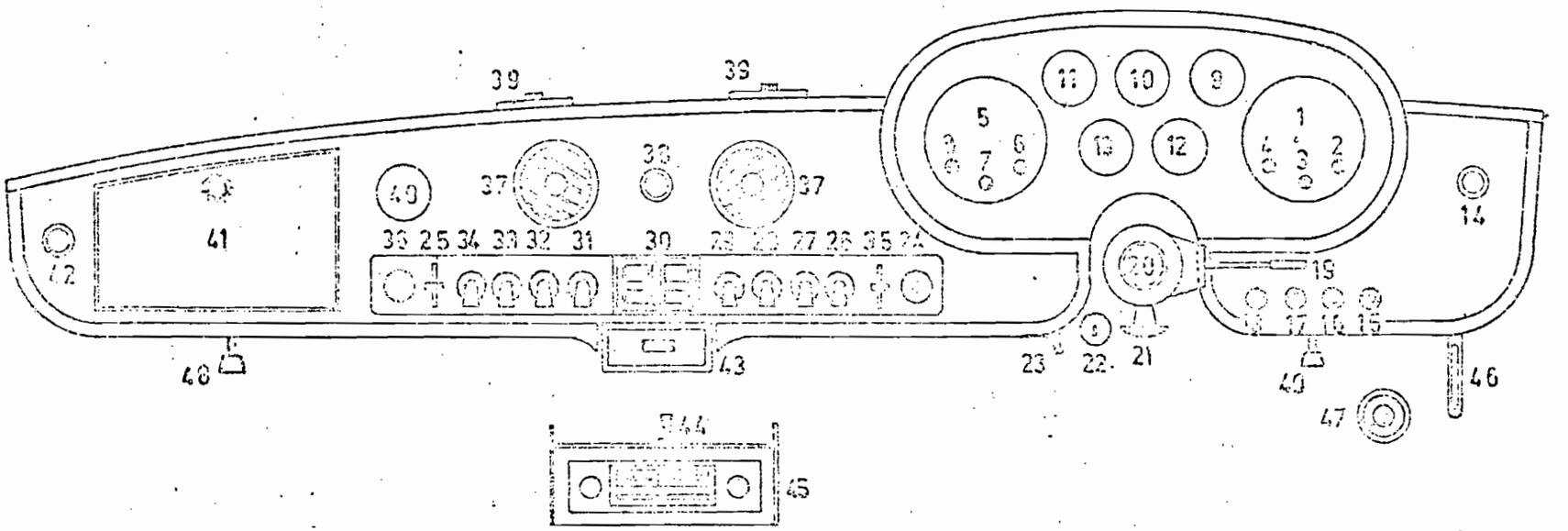
For temperatures above approximately 10°C it is not necessary to use the choke; instead depress the accelerator several times and run motor at 2000-3000 r.p.m. for approximately 20 seconds.

For temperatures under 10°C use choke running motor for 20 seconds and progressively eliminating choke.



- DASHBOARD FOR L.H. DRIVE -

L.H.D.



-DASHBOARD FOR RH DRIVE-

DASHBOARD INSTRUMENTS

1. Tachometer
2. Headlamp main beam warning light - blue
3. Direction indicator warning light - red
4. Side lamp warning light - green
5. Speedometer and odometer
6. Heater blower warning light - amber
7. Ignition warning light - amber
8. Alternator charge warning light - red
9. Water temperature indicator
10. Oil pressure gauge
11. Oil temperature indicator
12. Fuel level indicator
13. Ammeter
14. Choke control knob
15. Hand brake warning light - red
16. Rear window defroster warning light - amber
17. Left side fuel tank reserve warning light - red
18. Right side fuel tank reserve warning light - red
19. Change over lever for outer lights
20. Air horns push button
21. Driving position adjustment locking knob
22. Steering wheel locking device
23. Kilometer counter zero-setting knob
24. Ignition starter switch
25. Heater water flow control lever
26. Outer lights control switch
27. Low and fog light switch
28. Windscreen wiper switch
29. Instrument lighting switch
30. Window glass winder dual switch
31. Fuel feed pump switch
32. Heater blower two-speed control switch
33. Rear window defroster switch
34. Ceiling light switch
35. Ventilation control lever
36. Cigarette lighter
37. Ventilation outlets
38. Air conditioner thermostat
39. Windscreen defroster outlets
40. Electric clock
41. Glove box
42. Glove box light
43. Ashtray box
44. Aereal switch control
45. Radio
46. Bonnet release lever
47. Windscreen washer pump
48. Driver's side ventilation outlet control (up to car 2176)
49. Passenger's side ventilation outlet control knob

IMPORTANT

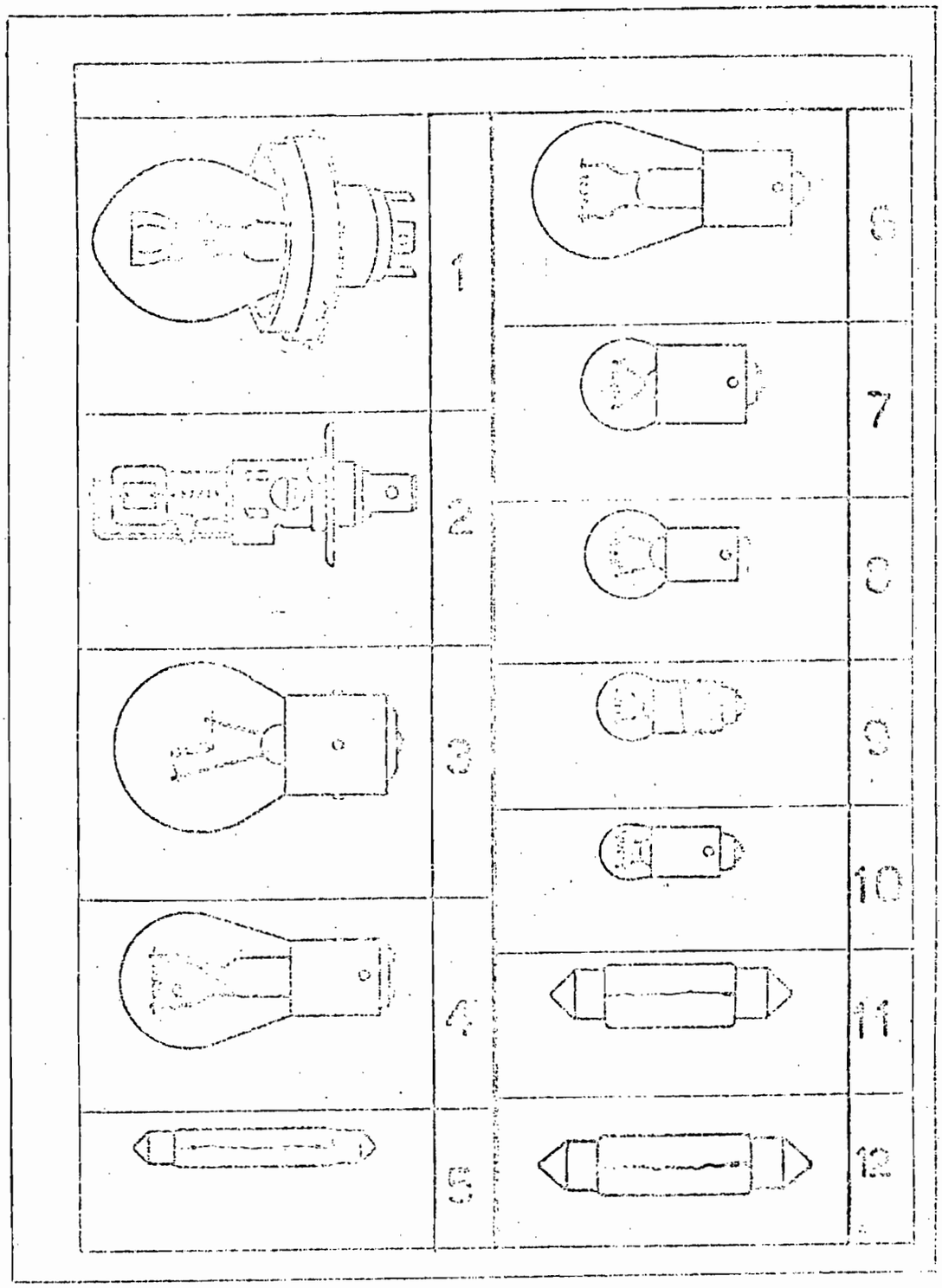
Your car is fitted with an exhaust silencing assembly which has been approved by the "Ispettorato Generale della Motorizzazione" (the Italian Government Body for Automotives); the approval reference has been stamped on silencers.

CONFORMITY OF SILENCERS TO THE ITALIAN GOVERNMENT STANDARDS DOES NOT EXCLUDE THAT IN CERTAIN CONDITIONS, ESPECIALLY WHEN THE CAR HAS BEEN USED FOR A LONG TIME, THE NOISE LIMIT MIGHT BE EXCEEDED.

The Officine Alfieri Maserati S.p.A., Via Ciro Menotti 322, Modena, Italy are at your complete disposal for any further information on use and maintenance of your car, and will be very glad to assist you so that you may obtain the best performance and most satisfaction from your car.

1 -	Front Headlamps France front headlamps (amber)	P 45 t 12v - 40+45w.
2 -	Headlamps - Iodine	Phillips 12v 55w.
3 -	Fog lamps (amber glass)	Bay 21 s 12v 45w.
4 -	Rear side and stop lights	Bay 15 d 12v 5+20w
5 -	Dashboard lighting green with switch	S 6 12v - 3w.
6 -	Front/rear direction indicators & reverse driving lights	BA 15 s 12v - 20w.
7 -	Front side lamps & number plate lights	BA 15 s 12v 5w.
8 -	Lights on door	BA 9 s 12v - 6 w.
9 -	Instrument & warning lights	E 10/13 - 12w
10 -	Light on cigarette lighter	BA 9 s 12v - 3w.
11 -	Bonnet, boot & car roof lights	s 8.5 12v - 5w
12 -	Festoon bulb	s 8.5 12v - 10w

CAR BULBS



SERVICING INSTRUCTIONS

Normal service operation are to be carried out in accordance to the following schedule:

EVERY 1,000 KILOMETERS

1. Engine : check oil level and refill as required.
2. Radiator : check level and refill possibly with distilled water.
3. Tyres : check pressure.

EVERY 5,000 KILOMETERS

4. Engine : renew oil and filter elements.
5. Water pump : lubricate with a suitable hand-operated grease gun. Do not exceed the pressure of 0.2-0.3 atm.
6. Front Suspension Pins: lubricate grease nipples.
7. Propeller Shaft Universal Joints: lubricate grease nipples.
8. Steering Box and Joints: clean joints and check oil level in the steering box. If the hydraulic servo-steering is fitted, with the engine stationary, the fluid level must be 1 - 2 cm. above the top mark on dipstick. Run then the engine at idling speed and recheck level as above refill as required.
9. Rear Wheel Hubs: lubricate grease nipples.
10. Clutch : Check fluid level in reservoir and refill as required.
11. Battery : Check level and refill, if necessary with distilled water.
12. Brake Fluid Tank: check level and refill as required.
13. Spark Plugs: clean and adjust gap at 0.5-0.6.
14. Contact Breaker : clean and adjust clearance between points at 35 mm.
15. Driving Belts : check tensioning.
16. Timing gear chains : check tensioning.
17. Water pump seal : check for leakage and renew seal if necessary.
18. Clutch pedal free travel : check and adjust at 10 mm. free travel.
19. Brakes : the pad adjustment is automatically controlled.
20. Steering box : adjust play by means of its own bolt, ensuring a maximum torque of 7 Kgm.

EVERY 10,000 KILOMETERS

21. Clutch Thrust Shaft: lubricate with a suitable grease gun.
22. Ignition Distributor: dismantle and lubricate bearings and bushes.
23. Gear-Box: check oil level and refill as required.
24. Differential Unit: check oil level and refill as required.
25. Valves: check and adjust clearances.
26. Brakes: check braking pad thickness. New pads minimum thickness 7 mm. (back plate included).
27. Fuel Filter: check their condition and, if necessary, renew the filtering element inside the pressure regulating valve.
28. Water Pump: lubricate shaft bearings.
29. Throttle Control Cable: lubricate.
30. Front Wheel Hubs: check grease packing and bearing end play.

EVERY 20,000 KILOMETERS

31. Fuel Filter: renew the filtering element inside the pressure regulating valve.
32. Gear Box: renew oil completely.
33. Differential Box: renew oil completely.
34. Steering Box: renew oil completely.
35. Front Wheel Hubs: repack with grease.
36. Bendix Fuel Pumps: remove the bottom cover and clean accurately the filter; if necessary, renew filter.
37. Brakes: renew fluid.

EVERY 50,000 KILOMETERS

38. Brakes: renew rubber plungers on wheel cylinders.

DETAILED INSTRUCTIONS IN RELATION TO SERVICE OPERATIONS 8 - 15 - 16 - 18 - 19.

8. Steering System: When normal overhauls are carried out, it is necessary to check all the steering components in order to clean the joints on rods and steering box.

15. Alternator Driving Belt: In order to adjust the belt tension, loosen the nut on the fixing bracket and set the belt tension by moving the alternator as required.

16. Timing Gear Chains: When it is necessary to set the chain tension, unscrew the centre nut on tensioner; remove the lock washer and the dowel by means of a suitable extractor; rotate the cam up to a 0.1 Kgm. and lock it in this position by refitting the dowel, the lock washer and the nut.

18. Clutch Assembly: The clearance between the clutch plate and the pressure plate is set at 2.5 mm., but it will be gradually reduced because of the clutch lining wear, and it may fall to a zero value and cause the clutch slippage. The clutch clearance can be adjusted to specification by rotating the adjustable screw which is provided on the slave cylinder. A clutch clearance of 2.5 mm. is equivalent to a pedal free travel of 14 mm.

19. Disk Brakes: When reassembling disk brakes, it is necessary to check parallelism between disk faces and brake calipers up to a tolerance of few hundredths of a millimetre. Brake pads should be renewed every 20.000 Kms. if brakes are used normally. They must be replaced when their thickness is reduced to a few millimetres.

IMPORTANT: When overhauling brake and clutch assemblies, take care in avoiding contamination of functional components by mineral oil, petrol and petroleum derivatives in order to prevent a possible failure of rubber seal plungers in master and wheel cylinders. These components must be cleaned in soda solution, alcohol or CLEAN GIRLING BRAKE FLUID.

VENTILATION - HEATING - AIR CONDITIONING

Description see illustration at pages 14-15

The air supplied through the right-hand duct (2) flows into the car through the shutter (3), the casing with blower (4), the transverse duct (6) and the radiators (8). Suitable flap deflectors (9-10-11) deliver the air to the windscreen, to the front seats and to the driver's and passenger's feet. A Torringhton centrifugal blower (4), driven by a powerful two speed motor (5), controlled by switch (32), provides a high flow of air through the radiators. This air can be drawn either from the exterior when the shutter flap (3) is moved rearwards, or from inside the car, through the shutter (7) controlled by the lever below the dashboard, when the shutter flap (3) is moved forwards.
The air coming from manifold (6) goes through the radiators (8) flows warm or cold into the car according to whether the heating system or the air conditioning is operated.

HEATING SYSTEM

The system consists of: a hot water offtake tap (22) fitted on the cylinder head and actuated by the dashboard control lever (25); two tiers of the radiators (8); a return tube (23) which delivers the hot water to the intake of the engine water pump; a tap (26) which is connected to the hot water line and prevents water from returning into the radiator during hot weather. This tap should therefore be actuated by hand at the beginning of summer and winter.

AIR CONDITIONING SYSTEM

This system consists of the following assemblies:

1. Evaporator assembly, which includes the first 4 tiers of the radiators (8); an adjustable injector which expands the compressed Freon 12 thus producing refrigeration; a thermostat (24) which automatically controls and stabilizes the inside car temperature as required in the region of 14°C; the flap deflectors which direct the conditioned air as required.
2. Compressor assembly (15): of the open type, which can work at variable speed, between 500 and 6000 r.p.m. It absorbs a variable horsepower, between 1/3 and 3 HP, to produce a variable rate of refrigeration.
   The compressor is driven by two V belts which are driven by the crankshaft.
3. Electric valve (18) it replaces the pressure regulator, fitted on all conventional systems; its main function is to avoid that pressure grows to a dangerous point as a result of particular working conditions.
   By the intervention of the pressure switch it has to di[illegible]

During the cold season, in order to dehumidify the air inside the car and to have the windows constantly demisted, it is advisable to operate the cooling system partially and the heating system fully, with the control lever (35) fully moved upward.
In order to obtain good and quick results all the windows should be kept fully closed, especially when air conditioning with recirculation flow is operated.

NOTE: In damp atmospheric conditions it is advisable to use the recirculation flow (Fig. A) ventilation in order to avoid moisture and condensation inside the car.

system pressure exceeds the value of 18 Atm., the isobaric valve reduces progressively the efficiency of the compressor. This isobaric valve is installed right on the compressor replacing a cock and connected to the line that leads to the evaporator, its shutter being directly controlled by the compressor's delivery pressure. Therefore, higher the temperature, lower will be the quantity of circulating freon. This means that even in the worst various heat exchanging conditions, the compressor will continue to work and the conditioning system will flow out a quantity of cold air proportionately to the warm air eliminated by the compressor. The valve is equipped with a pressure switch which disengages the compressor, should the pressure drop because of a leak whatsoever.

4. Electromagnetic coupling: the engagement and disengagement of the compressor is automatically controlled by the thermostat which operates via an electromagnetic coupling. The coupling absorbs a current of 2.5 Amp.
5. Condenser (16): it consists of a copper coil with aluminium fins and is fitted at the front of the engine radiator.
6. Receiver-Filter (17): it contains some dehydrating material which eliminates any moisture from the freon.
7. Tubes: the compressor (15), the condenser (16) and the evaporator (8) are interconnected by special tubes (19-20-21) which are suitable for the freon circulation, high pressure and temperatures between -25°C and +120°C.

VENTILATION - HEATING - AIR CONDITIONING

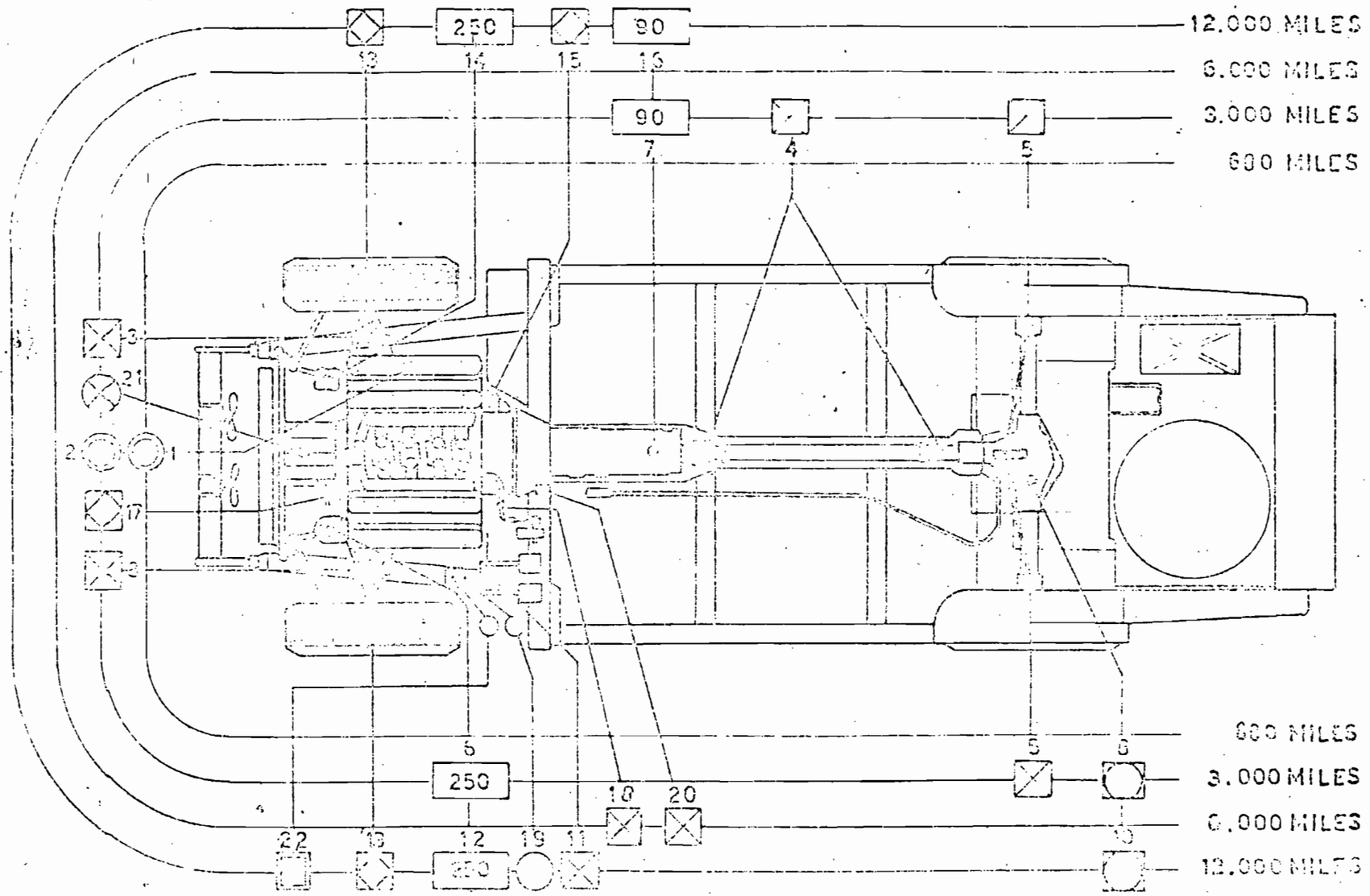
Operation

The system can be easily actuated through a few controls which provide a quick adjustment of the internal car conditions at any external temperatures.

With the car in motion, or by actuating a powerful two-speed blower through the switch (32), a high flow of air is supplied into the car. The air flow can be either warm or cold according to whether the control lever (25) is moved along its travel or the knob (38) is rotated.

The air flow from the exterior can be adjusted in volume by the control lever (35) and completely excluded when the lever is moved fully downward.

In the latter condition, the blower draws air from inside the car through a flap shutter actuated by the control lever (7), which is provided at the right side underneath the dashboard. By this operation the air is recirculated and can be increasingly heated or cooled (Fig. A).



– LUBRIFICATION DIAGRAM –

LUBRICATION DIAGRAM CODE NUMBERS

1. Engine.
2. Engine.
3. Front suspension.
4. Propeller shaft Universal joints.
5. Rear axle drive shaft.
6. Steering box.
7. Gearbox.
8. Differential unit.
10. Differential unit.
11. Pedal links.
12. Steering box.
13. Front wheel hubs.
14. Steering idler box.
15. Starter motor.
16. Gearbox.
17. Water pump.
18. Accelerator cable.
19. Brake fluid reservoir.
20. Clutch withdrawal shaft.
21. Air conditioning compressor.
22. Clutch fluid reservoir.

LUBRICATION DIAGRAM CODE SYMBOLS

	AGIP F1 RACING SAE 30-40 : Winter AGIP F1 RACING SAE 50 : Summer
1) 2)	CASTROL "CASTROLD STERLING BRAKE FLUID ALFA" AGIP F1 BRAKE FLUID
90	AGIP F1 ROTRA HYPOID 90
250	AGIP F1 ROTRA SAE 250
	AGIP F1 GREASE 15
	AGIP F1 GREASE 33 F.D.
	AGIP F1 TRM 34
	AGIP F1 BRAKE FLUID
	AGIP F1 ROTRA HP SAE 90

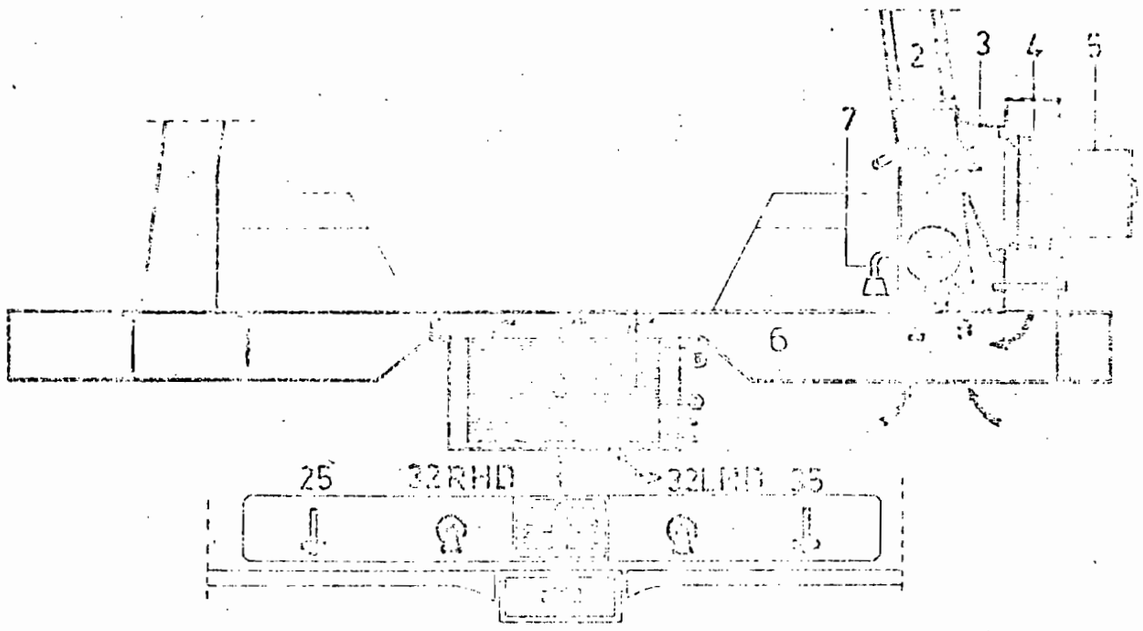


FIG. A - AIR FLOW WITH RECIRCULATION

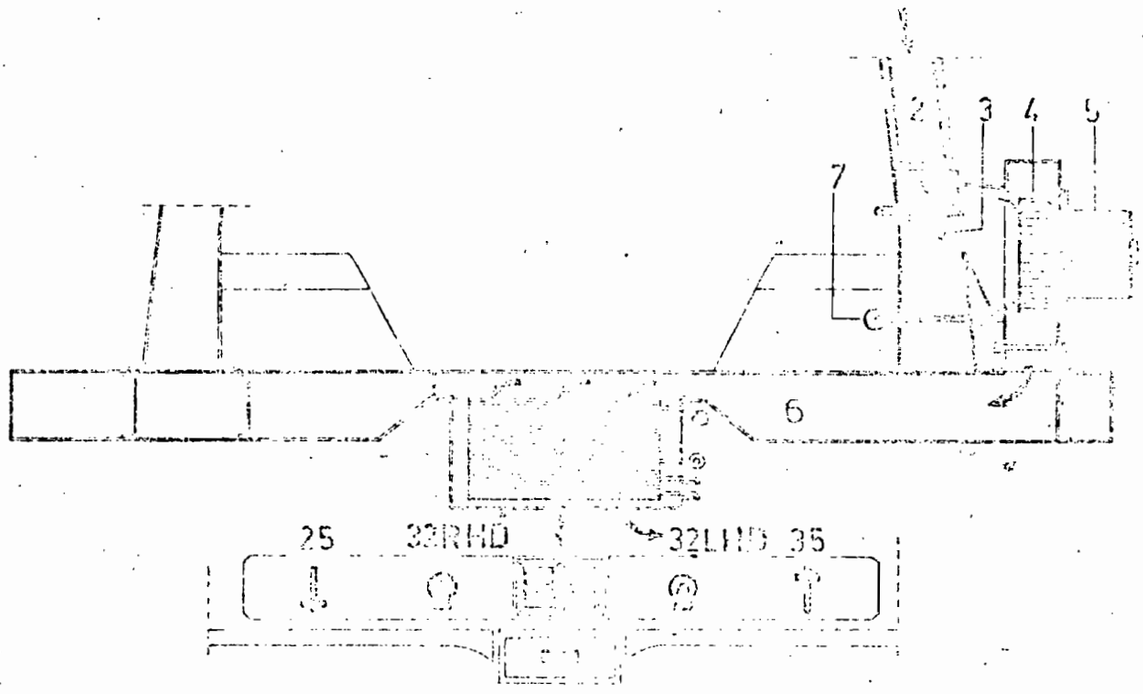
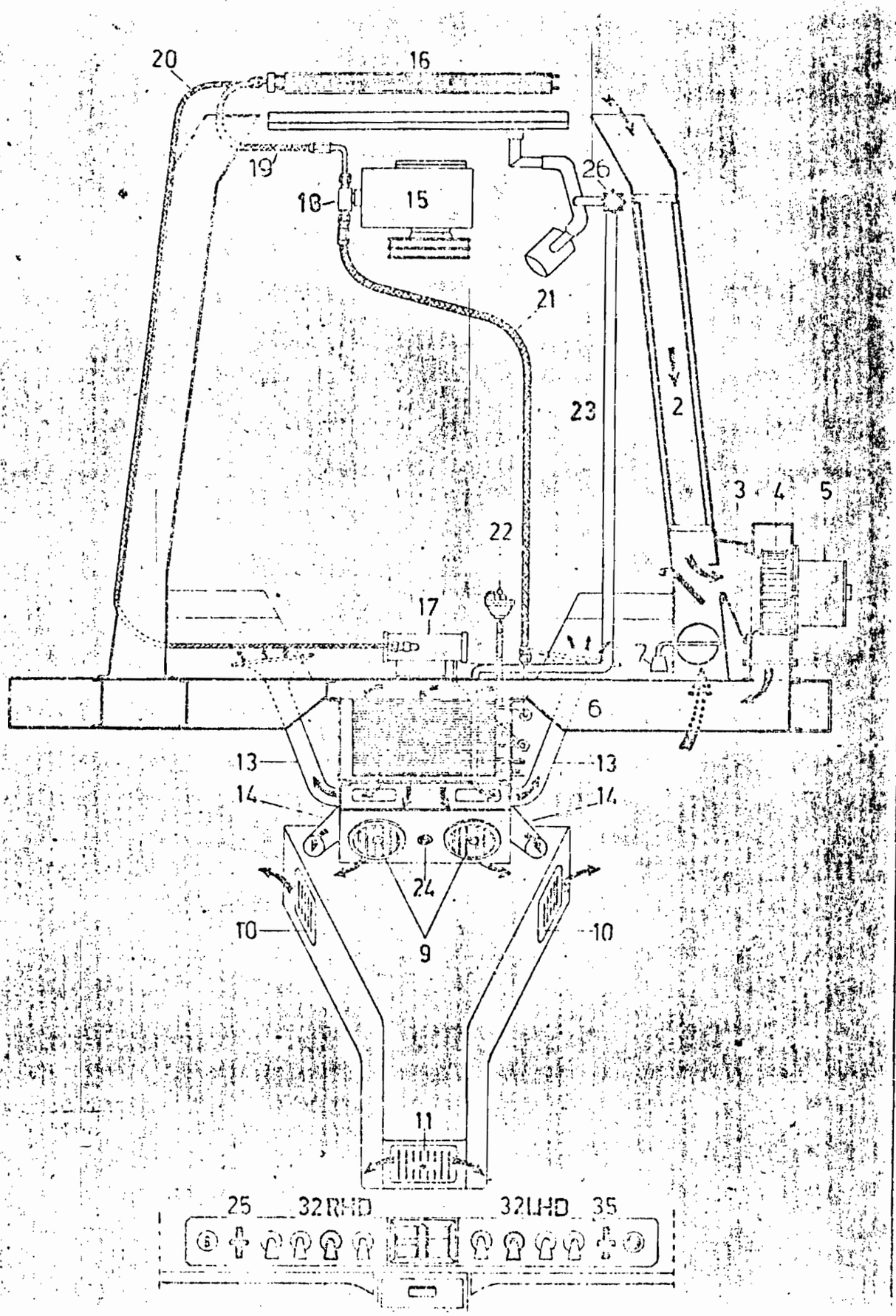


FIG. B - AIR FLOW EXTERIOR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32RHD
32LHD
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SUPPLY 2 - CONSUMPTION SPECIFICATIONS

Supply	Capacity (in litres)	SPECIFICATIONS
Fuel tank	90	SUPERCORTE AGGIORNATA N.C. 96/1[illegible] R. .
Engine radiator	14 4 5	Distilled water AGIP F1 ANTIFREEZE Freezing point - 12°C Freezing point - 20°C Freezing point - 40°C
Engine oil sump	9	Winter: AGIP F1 RACING SAE 10 Summer: AGIP F1 RACING SAE 50 For ambient temperatures lower than - [illegible] use: AGIP F1 RACING SAE 30
Gearbox 85/[illegible] 85/[illegible]	1.1 1.3	AGIP F1 ROTRA HYPOID 90
Differential	1.4	AGIP F1 ROTRA EP SAE 90
Slip differential	1.4	AGIP F1 ROTRA EP SAE 90
Steering box	0.2	AGIP F1 ROTRA SAE 250
Brake banks	0.8 0.8	1. CASTROL CASTROLAD GIRLING EQUIVALENT FLUID (ROTRA HIGH DUTY R 204/57) 2. AGIP F1 BRAKE FLUID
Clutch box	0.2	AGIP F1 BRAKE FLUID
Hydraulic [illegible]	0.35	AGIP F1 ROTRA ATF
Automatic transmission	9	AGIP F1 ROTRA ATF
Rivets, pins [illegible]	-	AGIP F1 GREASE 15
Wheel hubs, bearings bushes	-	AGIP F1 GREASE 33 F.D.
Air conditioning compressor	0.35	AGIP F1 TRR 34

Normal fuel consumption 20 litres/100 kms. (CSAI Standards)
The exact consumption may vary according to speed, road condition, [illegible] frequency of slowing-down and acceleration.
To be observed not to exceed an engine speed of 5500 r.p.m.
Refuelling [illegible]: 400 c.c. cylinders with full fuel tanks.

Electrical Equipment Components

1 Dipped light headlamp - left outside.
2 Main beam headlamp - left inside.
3 Left side fog lamp (on order).
4 Side lamp and direction indicator - left front.
5 Dipped light headlamp - right outside.
6 Main beam headlamp - right inside.
7 Right side fog lamp (on order).
8 Side lamp and direction indicator - right front.
9 Bonnet light switch.
10 Bonnet light.
11 Stop light hydraulic switch.
12 Horn.
13 Alternator.
14 Thermal cut-out switches - engine radiator fans.
15 Radiator fan motor - left.
16 Air conditioning compressor electromagnetic drive.
17 Radiator fan motor - right.
18 Ignition distributor.
19 Ignition coil.
20 Water temperature sender unit.
21 Starter motor.
22 Alternator voltage regulator.
23 Air horn compressor.
24 Radio aerial control motor.
25 Heating/ventilation blower motor.
26 Harness connection.
27 Windscreen wiper motor.
28 Choke control-on warning light switch.
29 Sparking plugs cable
30 Oil temperature sender unit.
31 Oil pressure sender unit.
32 Voltage regulators - instruments.
33 Water temperature indicator.
34 Oil pressure indicator.
35 Oil temperature indicator.
36 Fuel tank level indicator.
37 Ammeter.
38 Tachometer with warning lights:
a) main beams - blue
b) direction indicators - red
c) side lamps - green.
39 Speedometer/kilometer counter with warning lights:
a) heating/ventilation blower - amber.
b) choke control-on - green.
c) alternator charge - red.

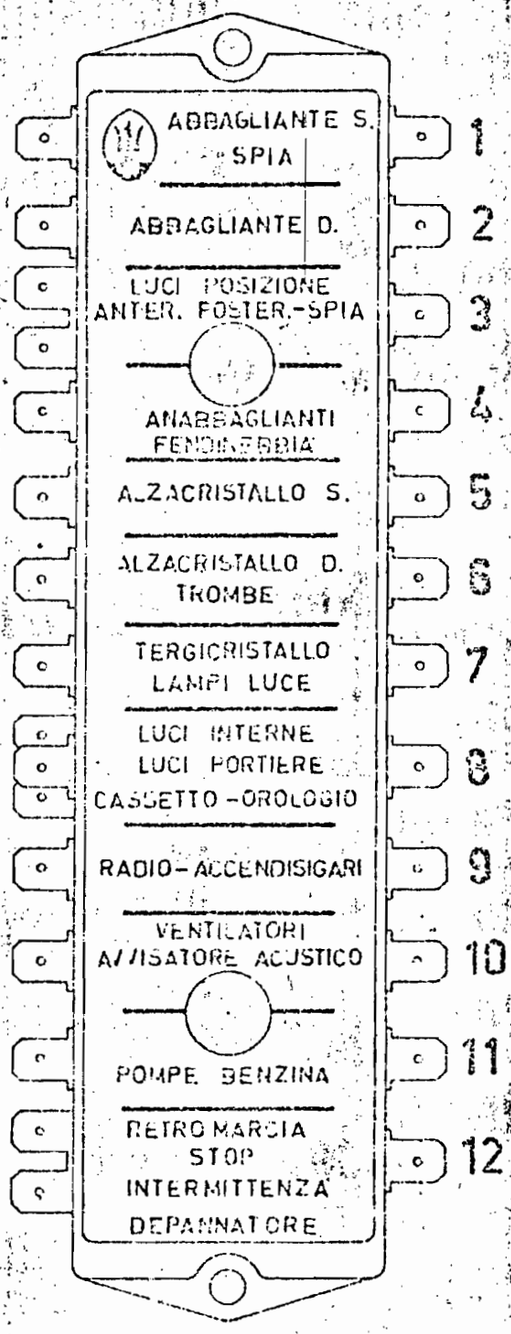
40 Air horn wiping contact.
41 Hand brake-on warning light - red.
42 Rear window defroster warning light - amber.
43 Fuel reserve level warning light - red for left tank.
44 Fuel reserve level warning light - red for right tank.
45 Lamp control unit on steering wheel.
46 Ignition switch
47 Control switch - external lights and headlamp dipped lights.
48 Fog lamps and low beams control switch.
49 Windscreen wiper two-speed control switch.
50 Lighting dimmer switch - instruments.
51 Two-way switch - left door window winder.
52 Two-way switch - right door window winder.
53 Change-over - petrol pumps and level indicators.
54 Two-speed control switch - heating/ventilation blower.
55 Rear window defroster switch.
56 Ceiling light switch.
57 Main beam cancelling relay - headlamp flashing unit.
58 Radio set.
59 Radio aerial control switch.
60 Air conditioning compressor thermal switch.
61 Electric clock.
62 Cigar lighter on dashboard.
63 Air horn relay.
64 Direction indicators flashing unit.
65 Map-box lamp on dashboard.
66 Hand brake-on warning light switch.
67 Reverse driving lights switch.
68 Fuse box.
69 Two-way switch - rear left door window winder.
70 Two-way switch - rear right door window winder.
71 Cigarette lighter on transmission cover.
72 Rear view mirrow with lamp.
73 Left side lamp for internal illumination.
74 Right side lamp for internal illumination.
75 Windscreen washer pump.
76 Earth switch for left hand courtesy light.
77 Window winder motor - left door.
78 Signalling light for front left door open.
79 Earth switch for rear left hand courtesy light.
80 Window winder motor - rear left hand door.
81 Signalling light for rear left door open.
82 Earth switch for front right hand courtesy light.
83 Window winder motor - front right door.
84 Signalling light for right front door open.
85 Earth switch for rear right hand courtesy light.
86 Window winder motor - rear right door.
87 Signalling light for right rear door open.

88 Terminal block.
89 Trunk illumination switch.
90 Petrol tank float sender unit - left tank level and reserve.
91 Fuel feed pump - left tank.
92 Rear window resistance defroster.
93 Trunk lamp illumination.
94 Radio loudspeaker.
95 Battery.
96 Petrol tank float sender unit - right tank level and reserve.
97 Fuel feed pump - right tank.
98 Triple lamp unit - left hand rear.
a) direction indicator light.
b) rear/stop light.
c) reverse driving light.
99 Number plate rear lights.
100 Triple lamp unit - right hand rear.
a) direction indicator light.
b) rear/stop light.
c) reverse driving light.
101 Motor relay - condenser fans.
102 Engine fans fuse valves.

TOOL KIT

1 car lifting jack.
1 set of spanners, 6-22 mm.
1 socket wrench - spark plugs.
1 adjustable spanner.
1 wrench - carburettor.
1 spanner - wheels.
1 steel hammer.
1 universal pliers.
1 screw driver.
1 spanner for the heat exchanger.

MAIN FUSEBOX



MAIN FUSEBOX

1 - Left headlamp main beam warning light.

2 - Right headlamp main beam.

3 - Front/rear side lamps - warning light.

4 - Dipped light headlamps, fog lamps.

5 - Left window winder motor.

6 - Right window winder motor, air horns.

7 - Windscreen wiper, headlamp flashing lights.

8 - Inside lights, door lights, glove box and clock lights.

9 - Radio and cigar lighter.

10 - Fans, horn.

11 - Fuel pumps.

12 - Reverse driving lamps, stop lights, direction indicator flashing lights, rear window defroster.