3500 GT DRIVERS MANUAL

Maserati Club

Digitally re-mastered

ISTRUZIONI

PER L'USO E LA MANUTENZIONE DELLA VETTURA

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P R E F A C E

In this booklet we have briefly gathered the main principles covering this car, together with informations for the knowledge and for the normal operations of use and maintenance of the car. In order to obtain the bestresults from the car as far as minimum cost, long life and best performance are concerned, one should bear in mind the suggestions given in this book.
For those operations and repairs not easely done with normal tools at one's disposal (supplied with ordinary tool kit), as well for complete or partial overhauling, we suggest those Owners, in their own interest, to ovail themselves of the services of our Agents who will look to the prompt, accurate and rational execution of any yob of repair or overhauling.
All spare parts must be original for the best functionning resukts.
Engine and chassis numbers must be givenwhen ordering spares.

DATA FOR IDENTIFICATION OF A VEHICLE

Each car is ifentified by special nimbers, i. e. :

AM 101 ☆ . . . . . ☆

AM 101 S ☆ . . . . . ☆

AM 101 C ☆ . . . . . ☆

The chassis serial number is stamped on the right hand side of the cross member and on both sides of this number appear the Maserati trade mark.
The engine number is stamped on the clucch housing near the starting motor.
These numbers, for easy reading, are repeated on two plaques mountedon the radiator shroud, and are the only ones suitable both for identificatio and sale of the car, they also appear on the certificate of origin and on the registration certificate.

SPECIFICATIONS

Number of cylinders	6 in line
Bore and stroke .....(3,38 x 3,93 inch)	86 x 100 mm.
Individual cyl. capacity (35,4 cu.inch)	580,88 cc.
Total capacity ..... (212 cu. inch)	4385,29 cc.
Max. power at 5800 rews/min. Injection	235 CV.
" " " " " " Carburettors	220 CV.
Taxable power	33 CV.

Cylinder block is of light alloy with liners of special cast iron.
Cylinder head is made of a light alloy with overhead valves, in which th valve seats have ben inserted.
Combustion chambers are hemispherical.
The crankshaft is dynamically balanced and is supported by seven lead-indium alloy bearings.
The conrods are made of forged steel in H section with the bigend bearing made of lead-indium alloy.
The little end bearing is a bronze bush.
Pistons are made of light alloy swith two compression rings and two oil rings.
Crankshaft has torsional damper.

DISTRIBUTION

The inclined valves in the head are actuated by 2 overhead camshafts driven by a 3 - cog chain.
Valves are operated direcly by the camshaft with the interposition of a small steel tappets operating in cast-iron seats.
Valve clearance is by means of casehardened steel inserts, which may be easily replaced.
The proper clearances (cold) between tappets and the base radius of the lobe of cam are 0,1 mm. inlet 0,2I mm exaust.
This will give the following data.

Lift of the inlet valve at top dead centre: 1 mm. (0,004)
lift of the ex. valve at top dead centre : 0,9mm. (0,039)

INTAKE COLLECTOR

The intake collector is a light alloy made, with water chamber for the warming up of the mixture.
In the hot season or in normaly hot areas, the water should not circulate inside the collector.
This is to improve the engine performance and make starting easier.

F U E L F E E D I N G - INJECTION

The Feed is obtained by fuel being injected inside the intake collector, (Indirect injection).
This is achieved by a Lucas fuel pump, distributor, and a control unit.
The pump is electricaly driven and it is capable of compressing the petrol to a pressure of 7 atmospheres.
The pump performance is very satisfactory, absorbing 60 watts only, with a fuel flowing capacity of 130 liters/h. to a pressure of 7 kgs. per cm.^{2} (Squared centimeter).
The pressure brings the fuel to a unit which is called "the distributor".
This distributor distributes the pressure to the appropriate injector, causing it to open, permitting a very precise fuel metering into the cylinders, in exactly the amount required by the engine, according to the setting of the control instrument .
The distributor has the advantage of not employing heavy components with alternate motion, nor elastic or return adyustments, the little cylinders being operated by pressure.
Figure no. 1 shows the distributor scheme.
One can note how the motion of one roter, bearing certain holes, connects the little cylinders alleys with the pressure and how the roter itself, with a further rotation, connects the same amount of pressured petrol with the tubing which conveys the fuel to,the injector.
This system is particulary simple.
Also the control system, which determines the amount of fuel conveyed inside the intake ports according to the amount of air inspired by the cylinders, is very simple, as well as its adjustment.
The adjustment is effectuated by means of rollers or springs, the flexibility of which has a considerable importance.
Figure 2 shows the control scheme and particularly, at point A, B, C, the coupled rollers determining the variation of motion of the distributor cylinders.
Points D, E, show the springs which vary the rollers operating place, on the plane.
The position and influence of springs D, E, are particularly important, since they determine the depressure capacity curve.
Rollers A, B, C, are only the elements providing the flowing capacity amount.
The control element is also equipped with a fuel flowing varistor, the performance of which is given by the Barometric depressure.
Oil lubrication of the injection system is provided by a slightly higher pressure than fuel's.

The distributor element is equipped with a constant level pump, with a pressure adyusting valve, which prevent fuel escape throughout the rotating components.

S T A R T E R

In the winter season an easier starting of the cold engine is obtained by an additional aumont of injected petrol and air which helps winning the cold engine friction, and permits the engine normal idling in the cold season as well.
This additional amount of air and petrol is obtained by operating a dashboard switch (choke) which can increase the mixture to three times the normal amount.
It is up to the driver to gradualy reduce this feed enreachment, setting the switch bach to zero position, as soon as the engine is perfectly hot.

SAFETY SWITCH

If the engine does not come into life when setting the starting key on, a safety system causes the authomatic diconnection of the fuel feeding pump and, contemporaneously, a red warning ligh lights up on the dashboard.
the safety system is aperated also when the engine oil pressure cut down beneath the 0,5 kgs. per cm^2 (squared centimeter).
To resed the pump into action, push the warning light button.
An additional switch, situated under the dashoard, eliminates the safety system efficiency, should this become defectable, and connects the pump directly with the ignition switch.

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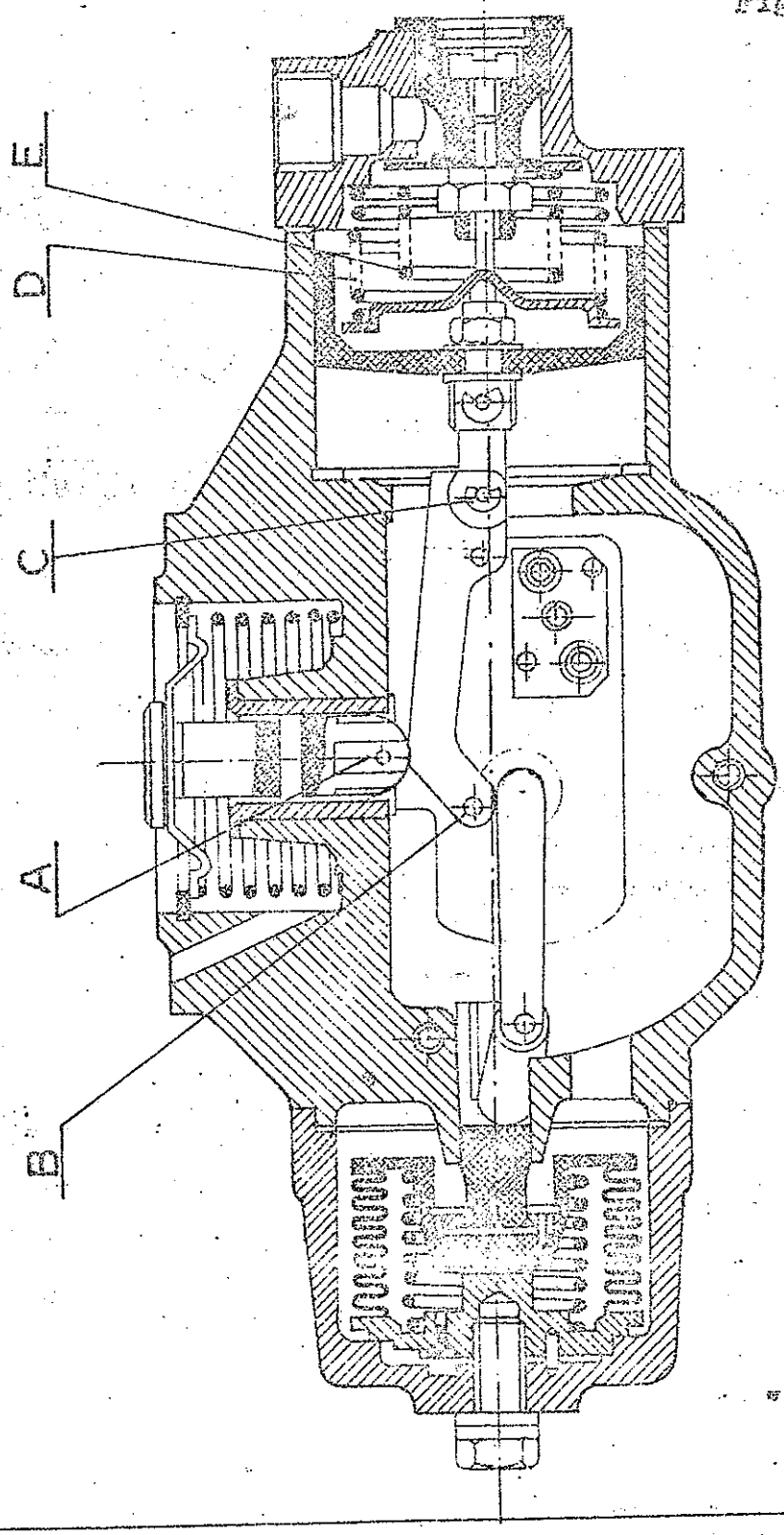
Fig. 1



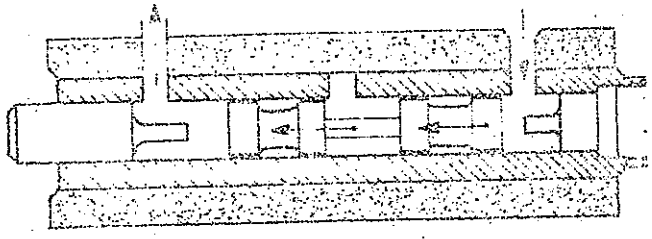
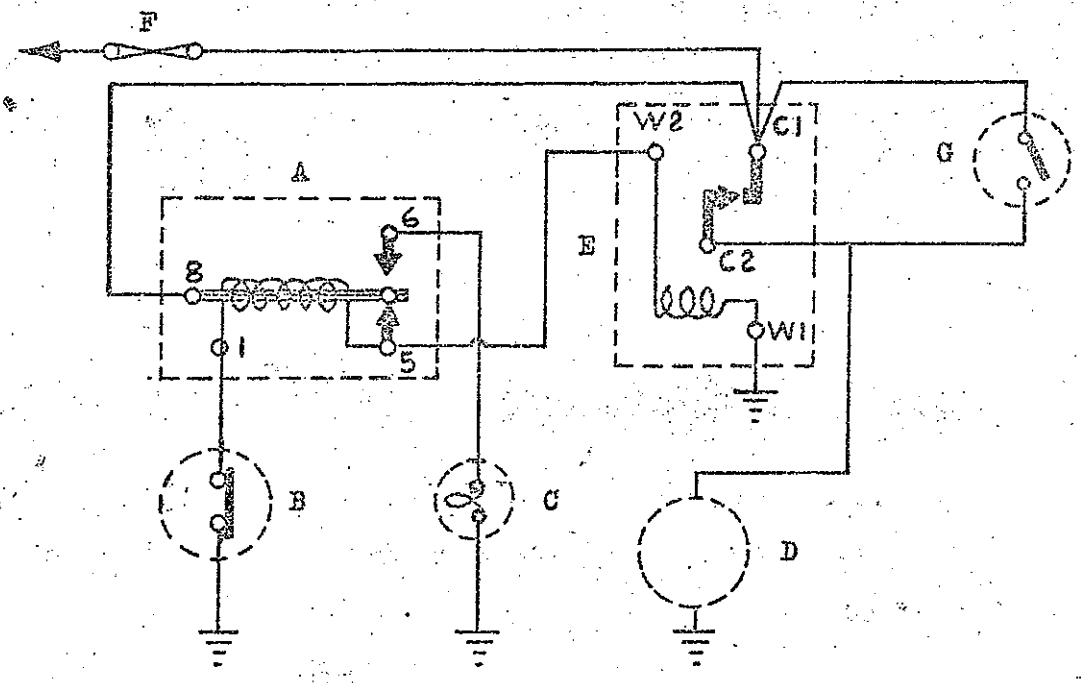


Fig. 2



A - Thermical switch

B - Pressure switch (switch off pressure 0,5 atm.)

C - Push button warning light

D - Injection pump with filter (maximum consumption 5 Amp.)

E - Relais

F - 11 fuses (inside the fuses box beneath the dashboard)

G - Safety switch (on the left section of the panel, beneath the dashboard)

F U E L F E E D I N G - CARBURETTORS

The fuel feeding is provided by a 2 FP Type LUCAS pump (fig.4) which is sunk in the tank.

The 2 FP pump sucks fuel through one filter (I) situated on the button of the tank (E) and conveys it with pressure the to carburettors (C) eliminating in such a way the inconveniences caused by stagnant gas in the tubes.

The fuel is conveyed to carburettors through a centrifugal pump (D) in line with an electric motor (F) running at 2900 RPM.

The quantity of fuel conveyed varies from 130 to 230 Lt. per hour, in accordance with pressure.

Pressure is mantained constant by an exaust valve (B) but can be varied by a screw with nut from 0 to 0,4 Atm.

The pressure is regulated at 0,25 Atm.

The pump is isolated and gets electric current from two wires which gothrough the higher part of the pump and are protected agaist fuel infiltration by a flexible tube fixed to the pump and to the tank.

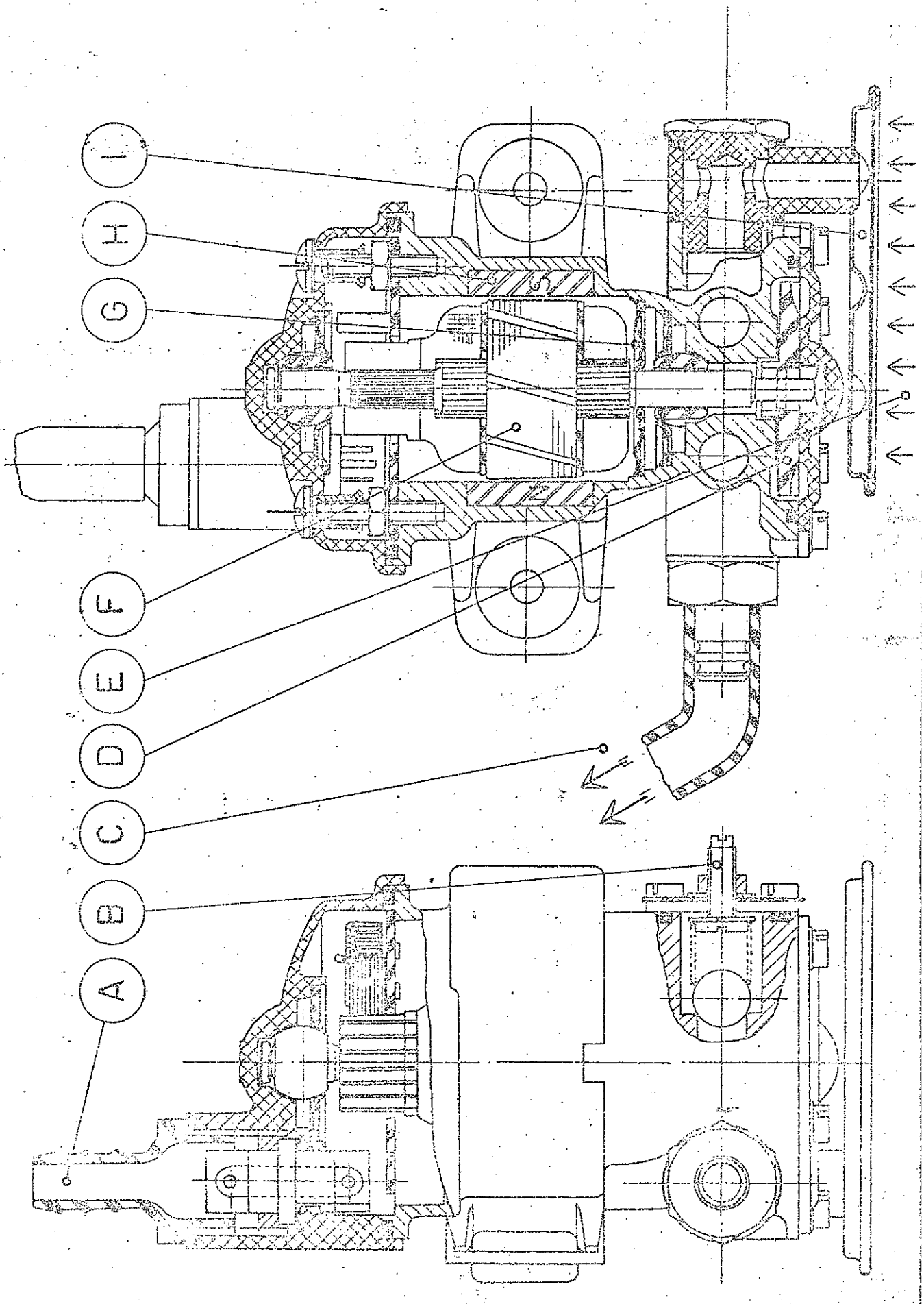
The fuel filter is situated on the rear right side of the car, and its element (cartridge) is easily replaceable.

Carburattors are Weber 42 DCOE 8 tipe, with double body, mechanical pump and starter.

The three double carburettors suck airythrough a single wide-capacity air filter, with catalytic action.

MASERATI AUTOMOBILI MODENA	POMPA LUCAS 2FP	8

Fig. 4



LUBRIFICATION

Lubrification is by forced circulation through all the main compnents of the engine, and is obtained by mans of a rotor pump situated inside the sump.
the pump sucks oil from the sump, passes it through a filter and then sends it to the components to be lubricated.
to ensure a low oil temperature a small helical pump, immersed in oil, and driven by a V belt circulates the oil through an oilradiator which is situated nex to the water radiator.
The oil filter is located on the right side of the engine block and is desmontable from underneath the car.
The normal oil pressure from low to high revolutions is of 3-5 kilos per sq. cm. (80 - 100 lbs. per sq. inch.).
This pressure is controlled by means of a pressure relief valve installed in the oil filter casting.
Oil is refilled through the pipe union situated on the front of the oil cylinder head.
The level is ascertained by means of a dipstick inserted into the pipe which is situated on the left hand of the sump under the exaust manifold.

COOLING SYSTEM

Engine cooling is obtained by circulating water through an centrifugal pump and a electromagnetic ventilator, the action of which is regulated by a thermometric swimch situated nn the radiator.
The ventilator comes into action when the water temperature is 75°/86° degrees.
The water flowing through the radiator is also automaticaly regulated by means of a thermostat, fitted on the engine head.
This system permits an Easily heating of the engine, specially at starting.
The water temperature is checked by means of an indicator on the upper section of the radiator.
The water temperature should not exceed 90° degrees. ×
The graining water tap is placed in the lower section of the radiator.
Radiator capacity is approx. 14 Litres. To the water is added 1% of emulsifiable oil.

I G N I T I O N S Y S T E M

The distributor is situated on the front right hand side of the engine, driven by a pair of helicoidal gears and by a battery. The distributor is a Marelli S - 87 A 12 V 15° (Destro) with automatic advance.

The spark is set at 12° advance. (on crankshaft)
Range of automatic advance is 30° (on crankshaft)
Max. total advance of the coil ignition is 42°.
Firing order is 1 - 5 - 3 - 6 - 2 - 4.
The gap between the breaker points is 0,4 mm. (0,016 in).
Gap between spark plug point is 0,5 mm. (0,02 in)
Diameter and gauge of the plugs are 14 x 11,25 mm.
Marelli type B Z R 201 A coils.

Spark plugs for light duty :

Marelli	CW 240 L	
Bosch	W 215 P 21	
Lodge	2	HL or 3 HLN
Champion	NA	10
K L G	FE	80
Marshal	34	HF

for heavy duty :

Marelli	CW 230 LPS	
Bosch	W 215 P 21	
Champion	NA	12
Lodge	47	RL
K L G	FE	250
Marshal	33	HFS

S T A R T I N G

The starter motor is a Marelli type MT 23 A CV 1,2
Starter is operated by means of a key switch on the dashboard.

E N G I N E M O U N T S

Engine has an inclination of 4° to the vertical-longitudinal plane, and is offset 38 mm. to the right-hand side.
Engine is mounted on 4 silentblocs.

T R A N S M I S S I O N

Clutch - The dray spring-loaded single-plate clutch is hydrauli-cally operated by two little pump: one is a 3/4" pump on the pedal and the other is a 7/8" pump on the clutch.
The pedal travel is regulated by means of a screw nut situated on the strut of the inlet side of the pump.

GEAR-BOX - There are 4 or 5 forward speed and a reverse ones.
There is syncromesh in all forward gears.
The gear lever is situated directly on the top centre of the gear box.

Gear ratios :	Normal		
1 ratio	0,331	=	3,02
2 "	0,540	=	1,85
3 "	0,776	=	1,29
4 "	1	=	1
5 "	1,18	=	0,85
Reverse	0,315	=	3,17

A X L E

Rear axle is a rigid hypoid - bevels.

The normal reduction ratio is :	13 / 49	=	3,77
It can be substitued by :	13 / 43	=	3,31
	13 / 46	=	3,54
	11 / 45	=	4,09

C H A S S I S

Principal dimension :

Front tread	1390 mm	(54,3 in.)	
Rear tread	1360 mm	(53,5 in.)	
Wheel base — Coupé	2600 mm	(102,3 in.)	
Wheel base — Coupé S. . . .	2500 mm	(98,4 in.)	
Wheel base — Convertible . . .	2500 mm	(98,4 in.)	
Ground clearance	130 mm	(5,1 in.)	
Weight of the empty car	1300 kilos	(2750 lbs.)	
Weight laden	1400 kilos	(3100 lbs.)	

The frame is exceptionally rigid and is made of longitudunal and transverse members, which are tuboler and eliptical in shape.
The size and strength of those members is proportional to the stress which they will undergo.

F R O N T S U S P E N S I O N

Front suspension is a quadrilateral transverse type with coil springs and with pivots acting on rubber suspensions.
Telescopic shock absorber type Girling F 4.5 or Koni 82.1019.
There is a transverse stabilizer bar to limit roll angle.

R E A R S U S P E N S I O N

Rear suspension is by Cantilever leaf springs, with 2 Girling F 7,5 shock absorbers.
There is a transverse stabilizer bar which steadies the car when cornering.

S T E E R I N G

The steering box is mounted on the left hand side and is of the type with variable play.
It is operated through a column with a flexible joint to dampen vibrations, and acts directly on the steering bars through a double lever.
The toe-in of the front wheels is between 5 and 6 mm.
The min. turning radius is 6 meters (20 feet).

B R A K E S

The brakes are hydraulic acting on all four wheels with 306 mm. diameter disc brakes at the front and 291 mm. diameter disc brakes at the rear.
The braking surface in the front wheels is 294,5 squared inchss and 186 squered inches in the rear.
The adjustment of the brake pads is automatical.
A second mechanical braking system, operates on the rear disc brakes.
This braking system is used as an additional safety braking, when parking, by pulling a hand-lever.
The braking system is equipped with a vacuum control situated on the right hand side of the engine which reduces the foot pressure required on the brake pedal to a minimum.
A vacuum of approx; 280 mm of mercury is obtained in the servo brake chamber by connecting this unit to the inlet manifold of the engine.

W H E E L S

The wheels discs are 550 X 16, perforated and attached to the hub by means of 4 stud bolts.

T Y R E S

Front and rear : Pirelli 185 x 16"

Cold inflation pressure for max speed of 100 ml/h :	front 1,7 Kg/cmq	=	24 lb/sq. in.
	rear 1,9 Kg/cmq	=	27 lb/sq. in..
Inflation pressure for speed more than 100 ml/h not : longway on normal roads	front 2,1 Kg/cmq	=	30 lb/sq. in.
	rear 2,3 Kg/cmq	=	33 lb/sq. in.
Inflation pressure for speed more than 100 ml/h : longway on motor roads	front 2,4 Kg/cmq	=	34 lb/sq. in.
	rear 2,6 Kg/cmq	=	37 lb/sq. in.

ELECTRICAL SYSTEM

Battery : The battery is located in the boot and is essily accessible.
Capacity : 64 amp/h - 12 volts
Type : Marelli - 6 VL 7

Generator: Marelli DN 63 A type, with a voltage regulator. It is situated on the left hand side of the engine and it is operated from the crankshaft through an adyustable V Belt. Normal output 400 W. Rotation is right from the front.

Starting motor : Marelli type MT 23 A 1,2 12 D9.

HORN

2 Electric - MIXO TR - 100 Horns operated by means of a button in the centre of the steering wheel.

FUSES

The 12 electric fuses of the electrical system are located together on a small fuse board which, for sake of convenience, is situated under the dash - board on the right - hand side, easyli accessible.

HEATING AND VENTILATION SYSTEM

As it is shown in the annexed print, table V, this system consists of :

One side conductor with electric fan (1), one centrifugal ventilator (2), one conductor for air distribution (4), one radiator (3) and one dynamical air inlet tube.
This system is very simple and can be used in several ways.

When used as ventilation system while the car is running, the dynamic air goes with pressure through the main throttle and the secondary throttle, and blows inside the car through three outlets, operated beneath the dash-board.
In these conditions additional air is blown inside the car also through the ventilator and radiator.
Should the dynamic pressure be unsufficient it is advisable to close the secondary throttle and to operate the ventilator.

Heating system : open the water tap (11) operating the lever on the dash-board. Open the air main throttle (6) and close the secondary throttle (7).
The air going through the radiator can be increased by operating the ventilators.
For heating the car without taking outside air, close the main throttle (6) abd open the secondary throttle (7) and operate the ventilator.
With the ventilator in action the air inside the car will be sucked from outled (9) and circulated through the radiator untill it has heated up to the desired temperature.
With outlet 8 open air circulation is easier.

Defrost : The air conductors to rear glass (12);are allways open, and to obtain a quick demist it is necessary to close n. 8 - 9 - 10 outlets and operate the heating system.

Hot water circulation and throttle operating levers :

(13) Operating lever for main throttle (6) - (When the lever is all the way up the throttle is closed).

(14) Operating lever for secondary shaft (7)-(When the lever is all the way up the throttle is closed).

(15) Hot water circulation tap operating lever (11) - (When the lever is all the way up the tap is open).

(16) Ventilators switch.

H E A T I N G A N D D E F R O S T E R

The car is equipped with complete ventilation and heating system which, besides improving the condition of the temperature into passenger's compartment, prevents at the same time the formation of frost on the windscreen.
The heater, which is illustrated in the annexed scheme, consists of the following parts :

1 - Hot water inlet in the radiator
4 - Radiator group
5 - Regulator's control for water circulation
6 - Throttle's control and ventilator introducing air in the radiator.
8 - Throttle's control and ventilator on driver's side.
10 - Radiator's door
11 - Water outlet from the radiator
12 - Throttle directing air flow to the radiator
14 - Air inlet on driver's side
15 - Water switch
16 - Throttle controlling air inlet on driver's side
17 - Air inlet to radiator with ventilator
18 - Air inlet on driver's side with ventilator
19 - Water return on motor pump intake
20 - Hot water inlet on the head of the engine
21 - Hot air output ventilator
22 - Regulator for warm water flow.
23 - Air on the front windscreen
24 - Air switch on the rear window

OPERATING

WORKING OF THE HEATER IS BASED ON INTRODUCING HOT OR COOL AIR ON THE INSIDE OD DRIVING COMPARTMENT BY MEANS OF CONDUCTORS WITH FRONTAL INLETS (17 - 18) WHICH ARE EQUIPPED WITH VENTILATOR WITH AN ELECTRICAL MOTOR; AND OUTPUT OF HOT AIR THE BONNET WITH VENTILATOR (21).

THE RADIATOR (4) THROUGH WHICH AIR INCREASE IS THERMIC CONTENT, CONSISTS OF A PIPE INSTALLATION WHERE THE HOT WATER OF THE ENGINE IS CIRCULATED AND IS DRAWN OUT AT WARMEST POINT (20) OF THE OUTLET NOZZLE FROM THE HEAD AND IS CIRCULATED AGAIN ON THE INTAKE CONDUCTOR OF THE MOTOR'S PUMP (19).

CIRCULATION OF HOT WATER IS OBTAINED BY MEANS OF THE LEVER (5) ON THE CONTROL PANEL, WHICH OPERATES ON THE PLUG-GOVERNOR (22)

THE AUXILIARY TAP IS NEAR THE WATER PUMP AND MUST BE CLOSED IN WARM WEATHER (15).

AFTER A FEW MINUTES RUNNING OF THE ENGINE, THE WATER WILL BE HOT ENOUGH TO BE ABLE TO HEAT UP THE AIR WHICH MAY THEN BE INTRODUCED BY OPENING THE INDUCTION THROTTLE (12) BY MEANS OF THE LEVER (6).

ON THIS INDUCTOR THE VENTILATOR IS ENGAGED BY THE SAME LEVER (6) AT WHICH TIME IT ACTUATES THE AUTOMATIC CUTOUT.

THE OTHER AIR INLET IS (18) EQUIPPED WITH ELECTRIC VENTILATOR, WHICH ARE OPERATED BY THE LEVER (8).

DIRECTS AIR ON DRIVER'S FEET BY CONDUCTOR (14).

THE LEFT HAND VENTILATOR IS ACTUAD BY 50 W ELECTRIC MOTOR WHICH EXTRACTS WARM AIR FROM THE ENGINE COMPARTMENT TO THE EXTERIOR VIA THE LEFT HAND GRILLE.

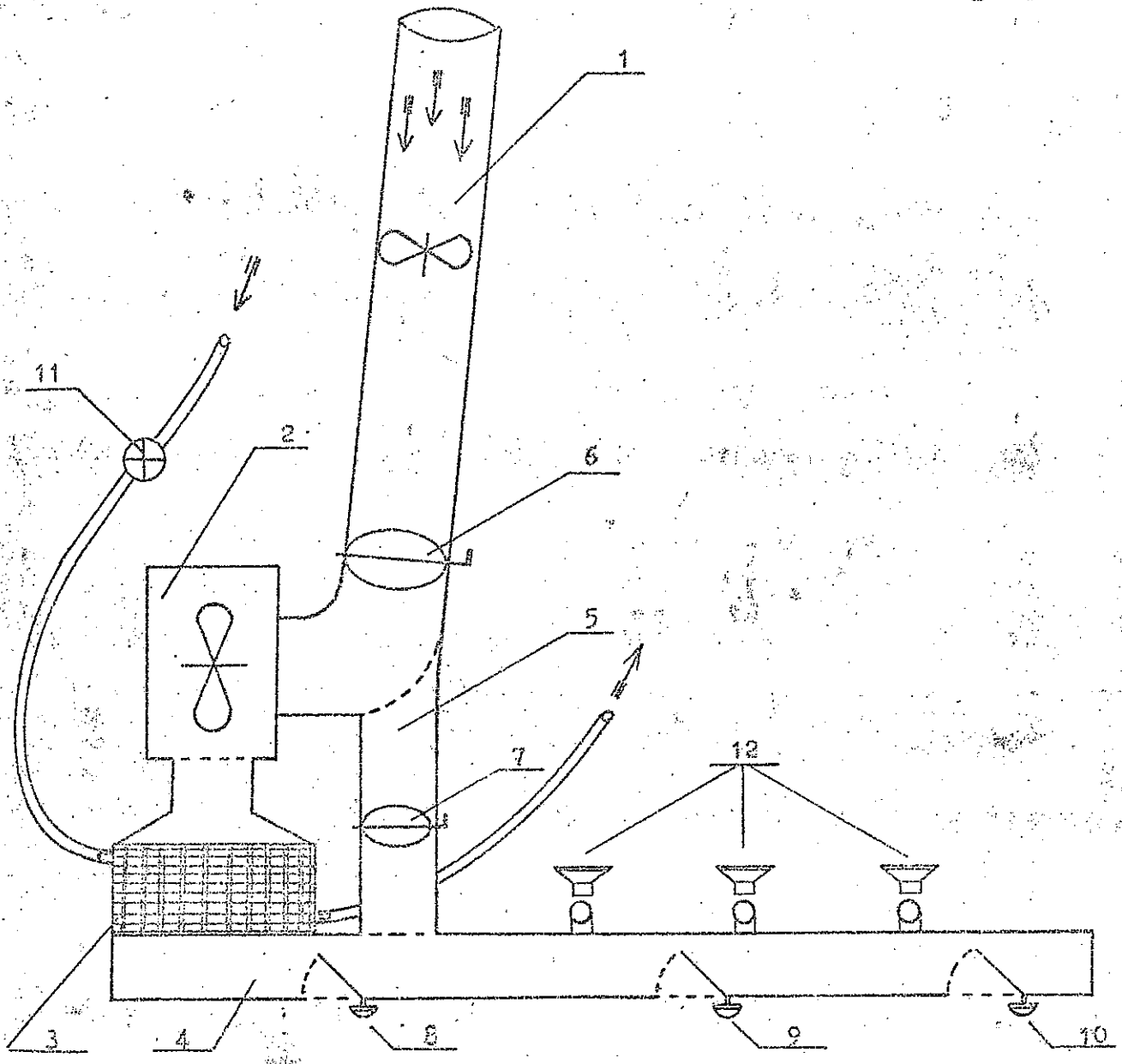
THIS BLOWER IS STARTED WHEN LEVER (8) IS DEPRESEED ALLA THE WAY DOWN.

THE OTHER WORDS THE ELECTRICAL VENTILATORS (18 - 19 - 21) ARE RESPECTIVLY OPERATED BY LEVERS (8 - 6) WHEN DEPRESEED TO THEIR LOWERMOST POSITION.

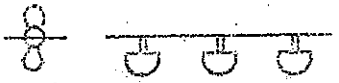
THEIR RUNNING IS INDICATED BY THREE PILOT-LAMPS, PLACED ON DASHBOARD IN RELATION TO EACH LEVER.

FOR GREATER SECURITY THE THREE FANS CAN ONLY BE OPERATED WHEN THE CARS' IGNITION SWITCH IS ON.

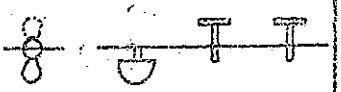
Fig. 5



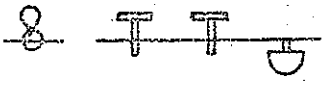
Levers position for completely cool (with or without ventilator in action)



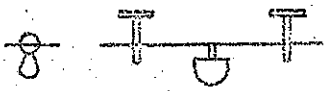
Levers position for completely hot (with or without ventilator in action)

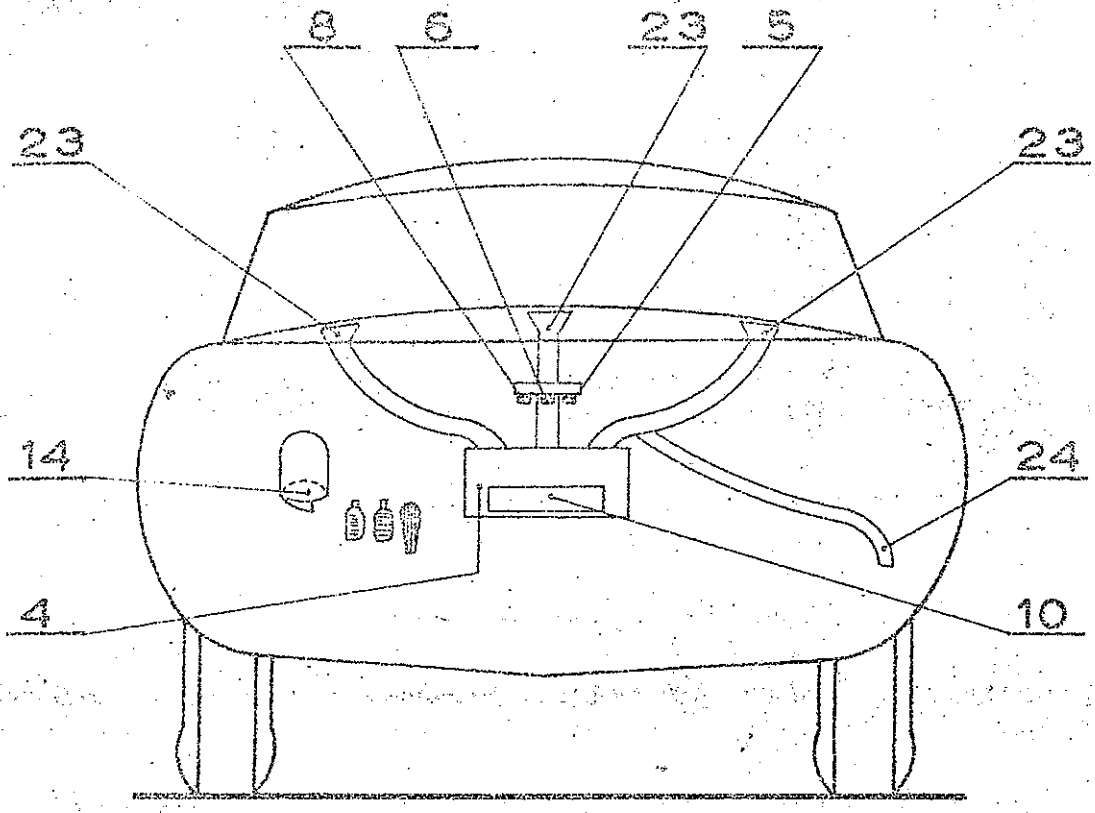


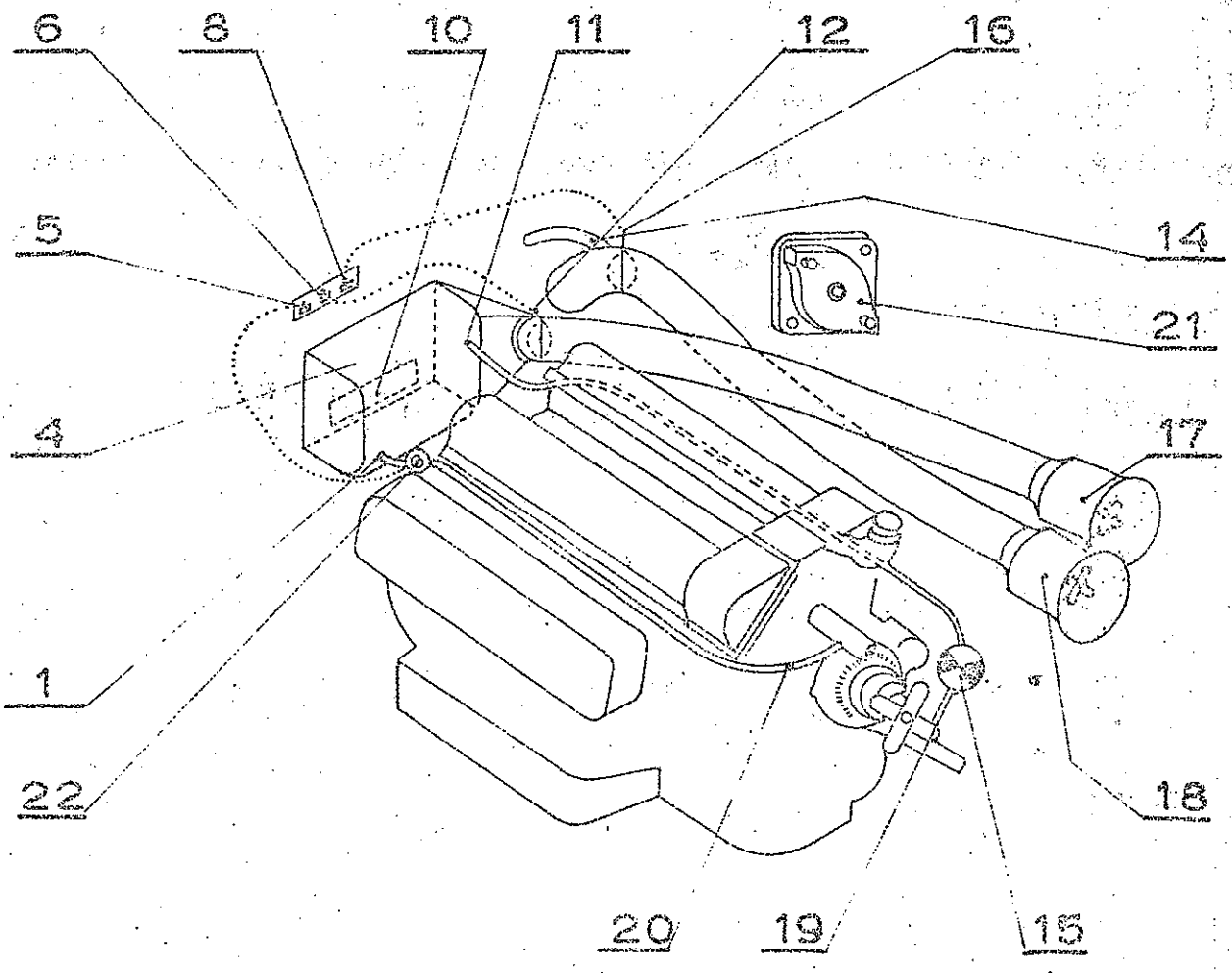
All closed position . . . . . .



Levers position for air circulation in the compartment with ventilator in action, hot radiator and outlet n. 8 open







IMPIANTO DI VENTILAZIONE E RISCALDAMENTO

Tav. 7

Axle ratio 13 / 46 = 0,2825 - 3,54
Tyres - 600 x 16" average circumference 2,24 - 88 Inches.

SPEED - MILES / h - (With 4 forward speeds)

Engine revs.	1 st Gear	2 nd Gear	3 rd Gear	4 th Gear	
	0,333	0,544	0,770	1	
1000	7,74	12,77	18,06	23,5	
1500	11,73	19,16	27	35,2	
2000	15,48	25,54	36,12	47,0	
2500	19,47	31,93	45,06	58,0	
3000	23,46	38,32	54	70,4	
3500	27,21	44,60	63,12	82,2	
4000	30,96	51,08	72,24	94,0	
4500	34,95	57,47	81,18	105,7	
5000	38,94	63,86	90,12	117,4	
5500	42,69	70,24	99,06	129,1	

Axle ratio 13 / 49 = 0,265 - 3,77
Tires - 185 x 400 average circumference 2,10 - 82,5 Inches
Tires - 185 x 16" average circumference 2,10 - 82,5 "

SPEED - MILES / h (With 5 forward speeds)

Engine revs.	1 st Gear	2 nd Gear	3 rd Gear	4 th Gear	5 th Gear
	3,02	1,85	1,29	1	0,84
1000	6,85	11,2	16	20,7	24,7
1500	10,37	16,8	24	31,05	37
2000	13,7	22,4	32	41,4	49,4
2500	17,22	28	40	51,75	61,7
3000	20,74	33,6	48	62,1	74
3500	24,7	39,2	56	75,45	86,4
4000	27,4	44,8	64	82,8	98,4
4500	30,9	50,4	72	93,1	111,1
5000	34,44	56	80	103,5	123,4
5500	37,9	51,6	88	113,8	135,7
6000	41,18	77,2	96	124,2	148

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

The above performances are given by the following models : Coupé, Coupé S., Convertible.

M A I N T E N A N C E

The normal maintenance operations have been listed hereunder as follows: - (after the first 500 km. or 300 miles the differential oil must be changed)

EVERY 1000 kms. (600 MILES)

1 - Engine : Check oil level and refill if necessary.
2 - Radiator : Check water level and refill if necessary, preferably with distilled water and 1° emulsifiable oil.
3 - Tyres : Check pressure.

EVERY 4000 kms. (2400 MILES)

4 - Engine ; Change oil and change oil filter cartridge.
5 - Water pump : Lubrificate with grease nipple. Dont exceed a pressure of 0,2 - 0,3 atmospheres.
6 - Front suspension pivots - Lubricate by means of the special grease nipple.
7 - Transmission junctions: These are to be lubricated by means of the grease nipples.
8 - Steering and articulated joints: lubricate by means of the grease nipples and check oil level in the steering box.
9 - Rear wheel hub : Lubricate by means of the grease nipples.
10 - Clutch : Check oil level in the tank of the pump and if necessary top up.
11 - Battery : Check level of distilled water and top up.
12 - Brake master cylinder : Check the level and if necessary add brake fluid.
13 - Spark plugs : Clean and set the points to a gap of 0,5 mm (0,02).
14 - Distribution points : Clean and set the gap to 0,4 mm(0,015)
15 - Generator belt : Adjust the tension.
16 - Timing chain : Check and adjust tension.
17 - Water pump packing gland : Make sure that it is water tight and if necessary replace it.
18 - Cluth pedal free play : Make sure there is 10 mm. (0,4 in) travel in the pedal before the clutch starts to disingage. Free play clutch pedal should be 10 mm (0,4 in)
19 - Brakes : Automaticaly adjusted.
20 - Steerin box : Regulate the play by means of the screw bolt. The max. torque strees not to exceed 7 kilogrameters (48 lb/fr).

EVERY 10.000 KILOMETERS (6000 MILES)

21 - Ignition distributors: Dismantle and lubrificate bearing and bushes.
22 - Gear box: Check level and if necessary top up with oil.
23 - Rear axle: Check the level and if necessary top up with oil.
24 - Commutator: Inspect, clean and lubrificate with special oil can grease, from side of driving belt.
25 - Valves: Adjust valves clearance.
26 - Brakes: Check the diameter of the braking pads. Minimum diameter shall be 7 mm. (iron guide included)
27 - Hand brakes: lubrificate the cable through the 3 grease niples
28 - Petrol filter: Check and if necessary replace cartridge.

EVERY 20.000 KILOMETERS (12.000 MILES)

29 - Gear box: Drain oil and refill.
30 - Differential: Drain oil and refill.
31 - Steering box: Drain oil and refill.
32 - Front wheel bearings: repack with grease.
33 - Braches: check pads and if necessary replace then.

34 - For carburettors cars: 2 F P Lucas Pump -

Check carbons and electric connector. Injection pressure must be 0,25 Atm. and fuel capacity no less then 28 Gallaons per hour.

FURTHER DETAILS REGARDING THE OPERATIONS N.

8 - 15 - 16 - 19 - REFERRED ABOVE:

8 - Steering : During the course of normal overhauling it is necessary to examine all steering parts in order to clean and lubricate the tierod joints as vell as the steering box unit.

15 - Generator belt: Should the tension require adjustment, it is necessary to loosen the bolt on the stirrup which is joined to the bottom of the generator, after which the required tension is obteined bi moving the generator itself. The adjustement of the belt for the oil cooler pump if effected by removing one or more of the spacers on the driven (pump) pulley.

16 - Timing chain : If after a certain period it is found necessary to adjust the timing chain tension unscrew the central nut holding the plate which is left of the engine block.
Remove the washer and locking dowel underneath using the proper extractor tool.
Turn the eccentric, using a torque stress of approx. 0,1 Kgm. (0,75 lb. ft.) and lock it in the desired position by placing locking dowel in the adjustment holes which are now aligned.

18 - Clutch adjustment : The play between the clutch and the thrust disc which must be approx. 2,5 mm (0,1 in) will be eliminated by the wear of the antifriction material, which results in the slipping of the clutch itself.
The inconvenience is eliminated by adjusting the play back to the original specifications by means of the adjustable tracer point situated on the second pump.
The play of 0,1 in. on the thrust disc corresponds to 0,15 in. displacement of the pedal.

19 - Brakes - When mounting disc brakes it is important to ensure that the disc braking surface and the pads are parallel.
Only a few millimeters play is admitted.
The replacement of the brake pads, which with a moderate use of the car is normaly effected after around 12.000, miles, is necessary when the antifriction material is worn out to a few millimeters diameter.

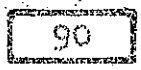
CAPACITY AND CONSUPTIONS

The normal petrol consumption (according to CUNA standard) is 13 litere x 100 Km. (5,5 U S gallons x 100 miles)
Average consumption varies according to speed, road surface and amount of acceleration and deceleration.
It is advisable never to let the engine exceed 6000 rvs/min.
The car can travel approx. 450 Km without refuelling (280 miles)

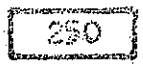
ITEM	CAPACITIES	REMARKS
Petrol tank	Gallons 20	SUPERCORTEMAGGIORE N.O. 98/100 R.M.
Radiator engine	Gallons 3,7	WATER
Engine sump	22 lbs	Winter: AGIP F 1 RACING SAE 30 Summer AGIP F 1 RACING SAE 50
Gear box	3,3 lbs	AGIP F 1 ROTRA HYPOID SAE 90
Differential	4,2 lbs	AGIP F 1 ROTRA HYPOID SAE 140
Differential	4,2 lbs	AGIP F 1 ROTRA HYPOID SAE 90 for temperature less than 8° C under zero
Steering box	0,44 lbs	AGIP F 1 ROTRA SAE 250
Master cyl. (brakes)	0,88 lbs	CASTROL WAKEFIEL GIRLING BRAKE FLUID AMBER (EXTRA HIGHT DUTY H 204/57)
Master cyl. (clutch)	0,44 lbs	OIL LOKEED HYDRAULIC HEAVY DUTY
Busnes & bearings		AGIP GRASSO 951 or AGIP F 1 GREASE 30
Steering joints		AGIP F 1 GREASE 15

LUBRICATION SCHEME SYMBOLS FOR TABLE X

AGIP F 1 RACING SAE 30 : Winter
AGIP F 1 RACING SAE 50 : Summer



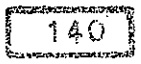
AGIP F 1 ROTRA HYPOID SAE 90



AGIP FF 1 ROTRA SAE 250

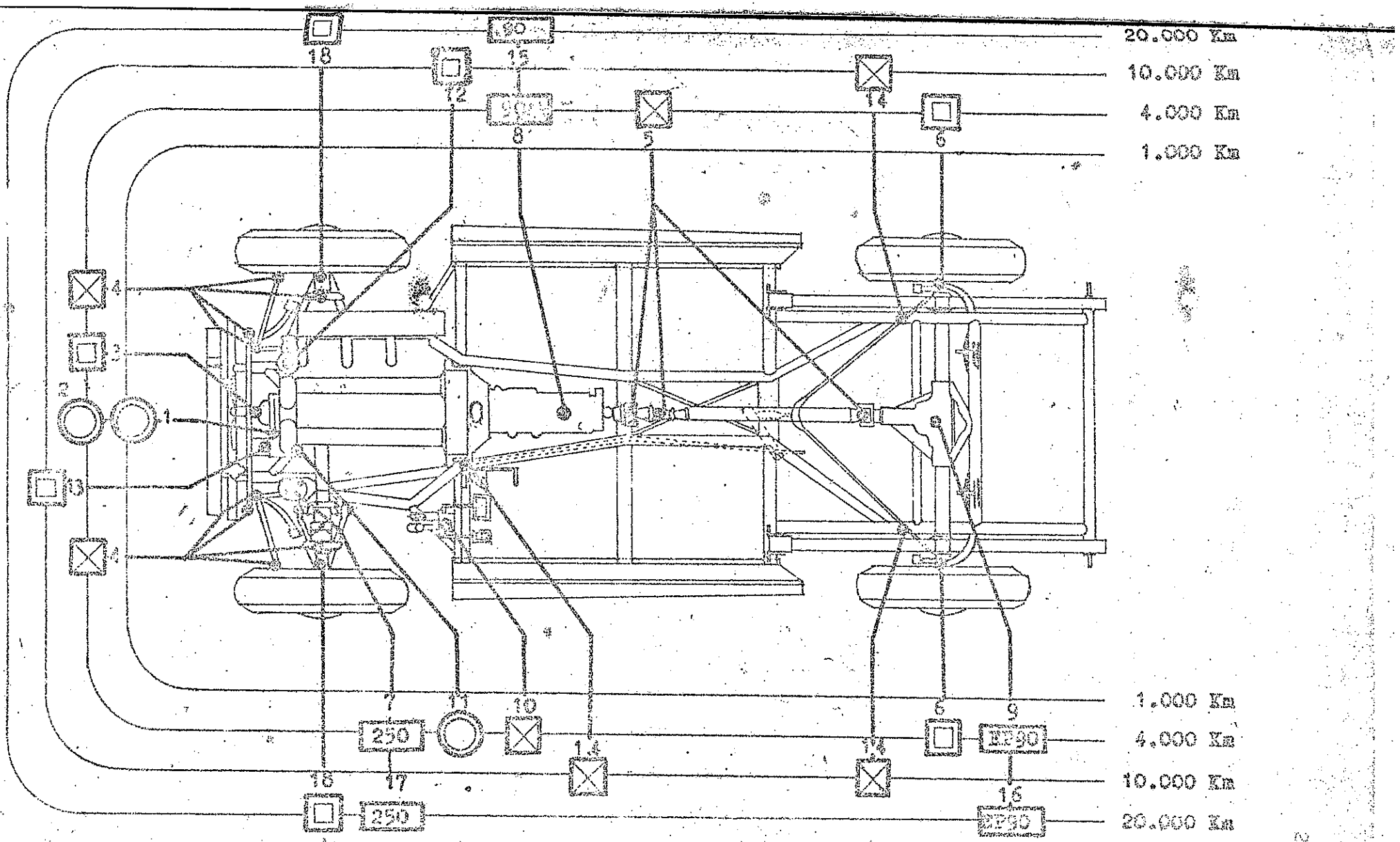
AGIP GRASSO 951 or AGIP F 1 GREASE 30

AGIP F 1 GREASE 15



AGIP F 1 ROTRA HYPOID SAE 140

In countries where AGIP F 1 RACING SAE 30 and SAE 50 are not available use AGIP F 1 MOTOR HD SAE 40 and SAE 50, taking care to change this oil and filter element for the first time after not more than 600 miles.



SCHEMA DI LUBRIFICAZIONE TAV. 8

TAV. X - LUBRICATION SCHEME

N° 1 - Engine
N° 2 - Engine
N° 3 - Water pump
N° 4 - Steering unit and suspension
N° 5 - Drive shaft points
N° 6 - Rear end
N° 7 - Steering box
N° 8 - Gear box
N° 9 - Differential Case
N° 10 - Pedals
N° 11 - Generator
N° 12 - Distributor
N° 13 - Generator
N° 14 - Hand Brake
N° 15 - Gear box
N° 16 - Differential case
N° 17 - Steering box
N° 18 - Front hubs

USE OF THE CAR

The car is delivered to customers after it has undergone a very strict test and a prolonged running-in of engine and transmission unit, and therefore it can be run to full speed without endangering its ultimate efficiency.
In this way it is not necessary to change the oil filter after the first 1000 kilometers, as is usually done with ordinary vehicles.

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On carburettors models it is not necessary to fit locks to the carburettors.

1 - Before driving off, it is advisable to check and see if the petrol is of the advised octano contents, if the radiator and the engins sump are full, and if the tyres have the right pressure.

2 - While going through the normal starting operations, remember to check if gear lever is in neutral, in such a position this lever can freely move from left to right.
To facilitate starting of the engine when cold pull out the hand throttle and twist the key to engage the starter motor.
Until engine is slightly warm, expecially during the cold season, avoid sudden acceleration but give the oil time to warm up, sothat it may freely circulate.

3 - When driving occasionally check the oil pressure gauge.
In order to avoid clutch wear do not rest your foot on the clouch pedal when not shifting gears.

4 - To switch off the engine, turn the ignition key.

5 - Winter precaution. If during winter months the vehicle has to remain standing outside in a temperature below freezing point, add antifreeze to the water.

IRREGULARITIES AND REMEDIES

Engine will not start: if the battery is flat, it should be recharged or replaced.
Engine too tight : oil is too dense or some part is too tightly fitted. (The latter case is possible when the car has been improperly overhauled by a non-specialist workshop).
Low voltage at spark plugs : damaged earth terminal, oxidised contacts of the coil ignition (a very rare case).
Damaged pumps filters dirty or clogged.
Low compression : excessive scoring of the cylinders, or excessive wear, or valves not having a gas-tight fit, or valve adjustement too tight.
Oily spark plugs : heat range too cold or fouled by excessive attempts to start.

LACK OF POWER IN ENGINE

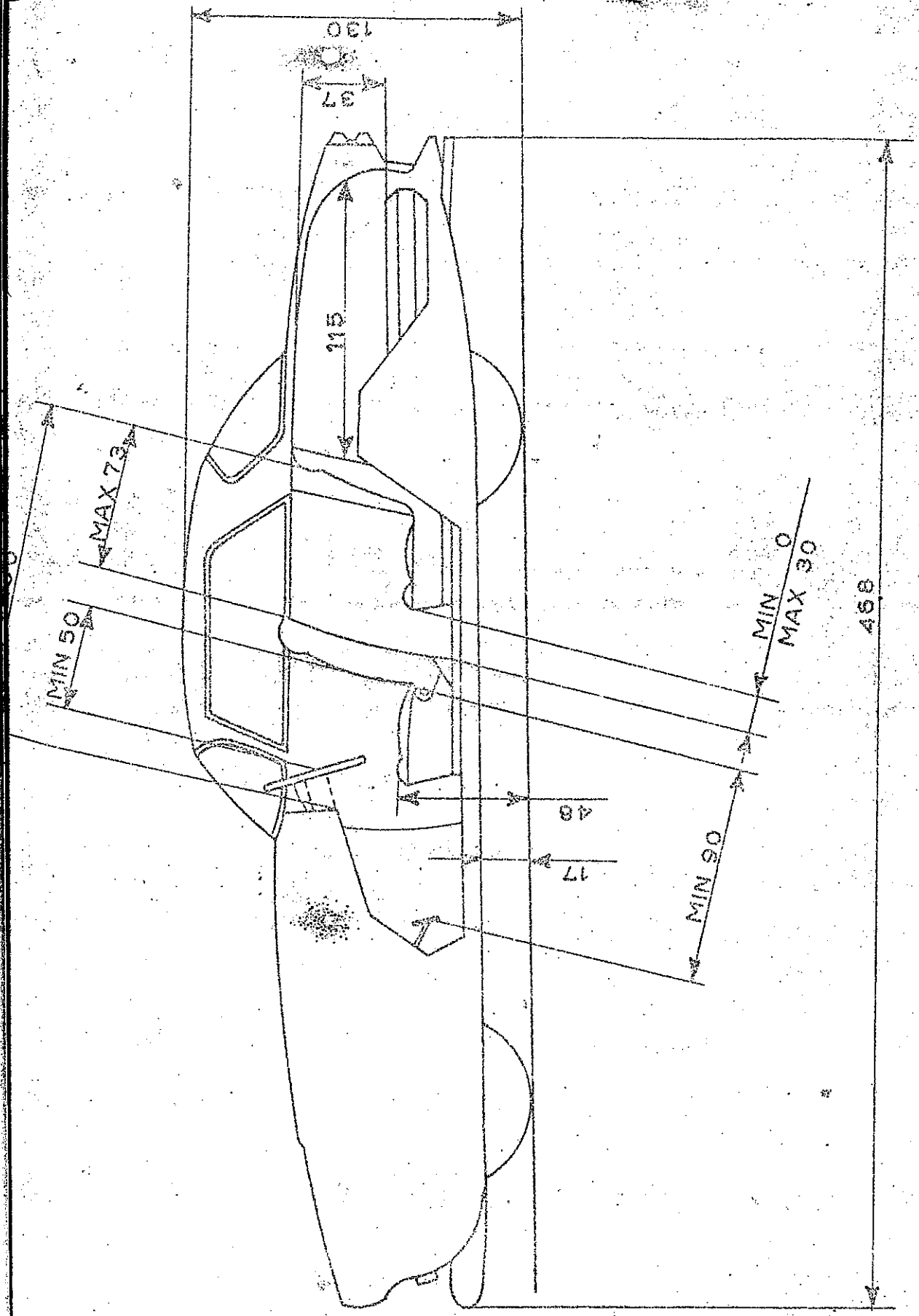
Low compression : the engine emits fumes from the crank case breather pipe; the piston rings are worn or broken: replace same.
Spark plugs with white insulating chine: plugs too hot : replace them with recommended type.
Incorrect type of petrol: unless suitable antiknock petrol is used, self ignition takes place: the petrol is too cold and therefore does not ignite at the proper time.
Incorrect engine timing: this can happen after an incompetent overhaul. Check and time.
Broken valve springs : the engine misfires.
Incorrect spark advance: check and reset according to the above data.

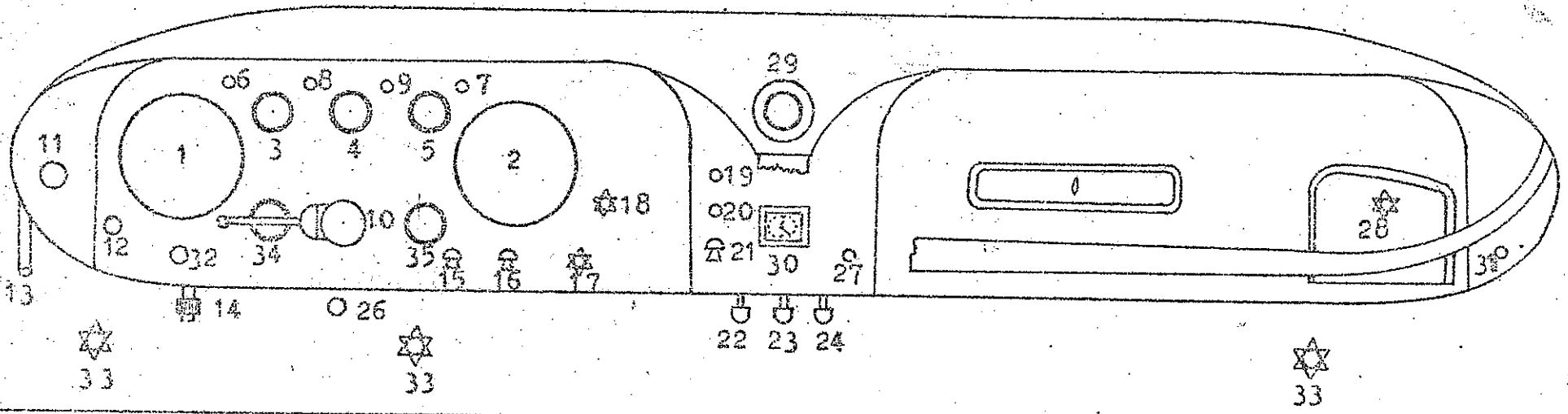
TOOL KIT

The tool kit supplies with the car contains :

1	jack to lift the car
1	base on which to rest the jack
1	set of spanners ranging from 6 to 22 mm.
1	spanner for sparking plugs
1	roll spanner
1	spanner for carburettors
1	curved spanner for wheel nuts
1	steel hammer
1	pair Universal pliers
1	screw driver

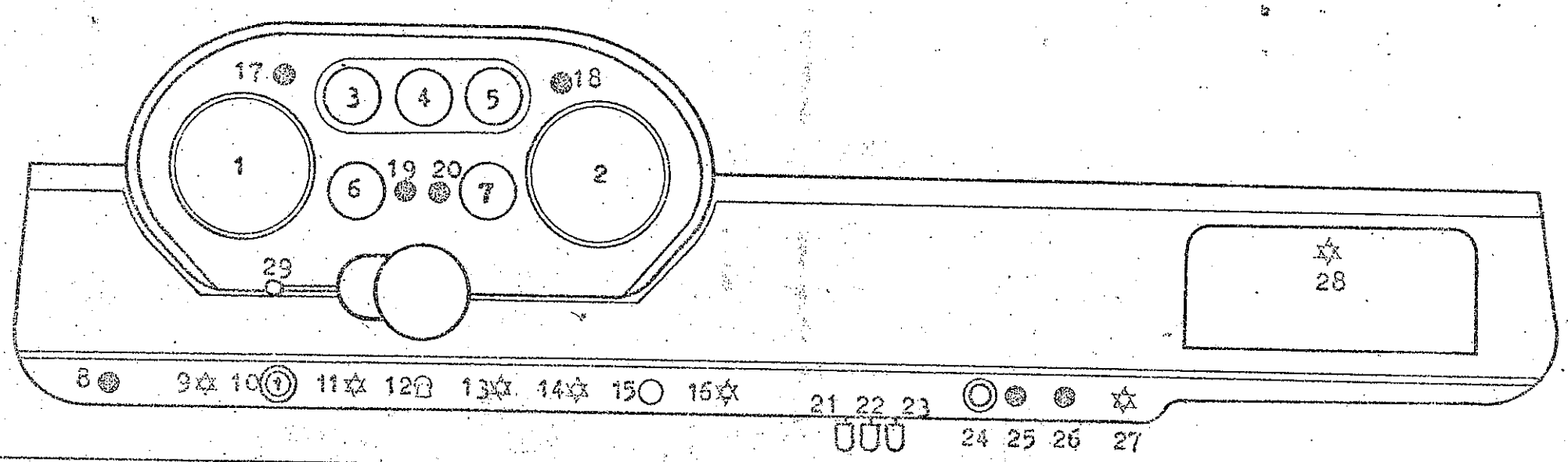
ASERATI tomobili MODENA	MISURE IN CENTIMETRI PER VETTURA 3500 G.T. COUPE' Touring	28





INSTRUCTION AND CONTROL PANEL

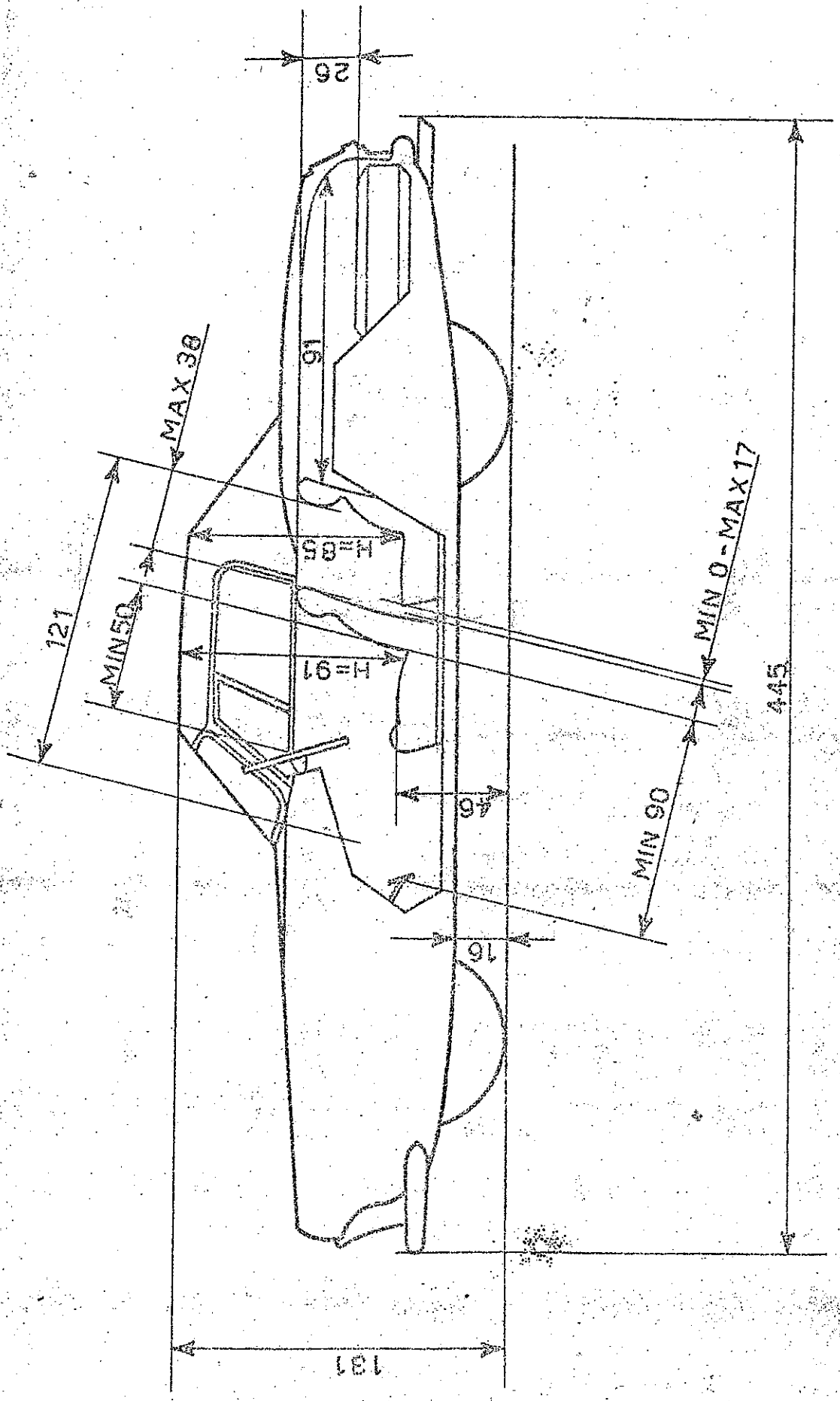
1	Speedometer	18	Lights switch
2	Revs. counter	19	Ventilation and heating warning light
3	Water thermometer	20	Fan warning light with magnetic ingage
4	Fuel gauge	21	Ventilation and heating switch
5	Oil gauge	22	Main throttle control switch
6	Direction indicator warning light	23	Secondery trhottle control switch
7	Generator warning light	24	Warm water circulation control
8	Head light indicator	26	Injection pump safety switch
9	Position lights indicator	27	Starter
10	Direction lights and head lights control lever	28	Papers box
11	Ignition key	29	Cigarette lighter
12	Windscreen wiper control	30	Watch
13	Bonnet opening lever	31	Lamp switch
14	Reset knob for trip counter	32	Injection pump warning light switch
15	Windscreen wipers	33	Ventilation inlets
16	Interior	34	Ammeter
17	Panel illumination rehostat	35	Oil temperature gauge

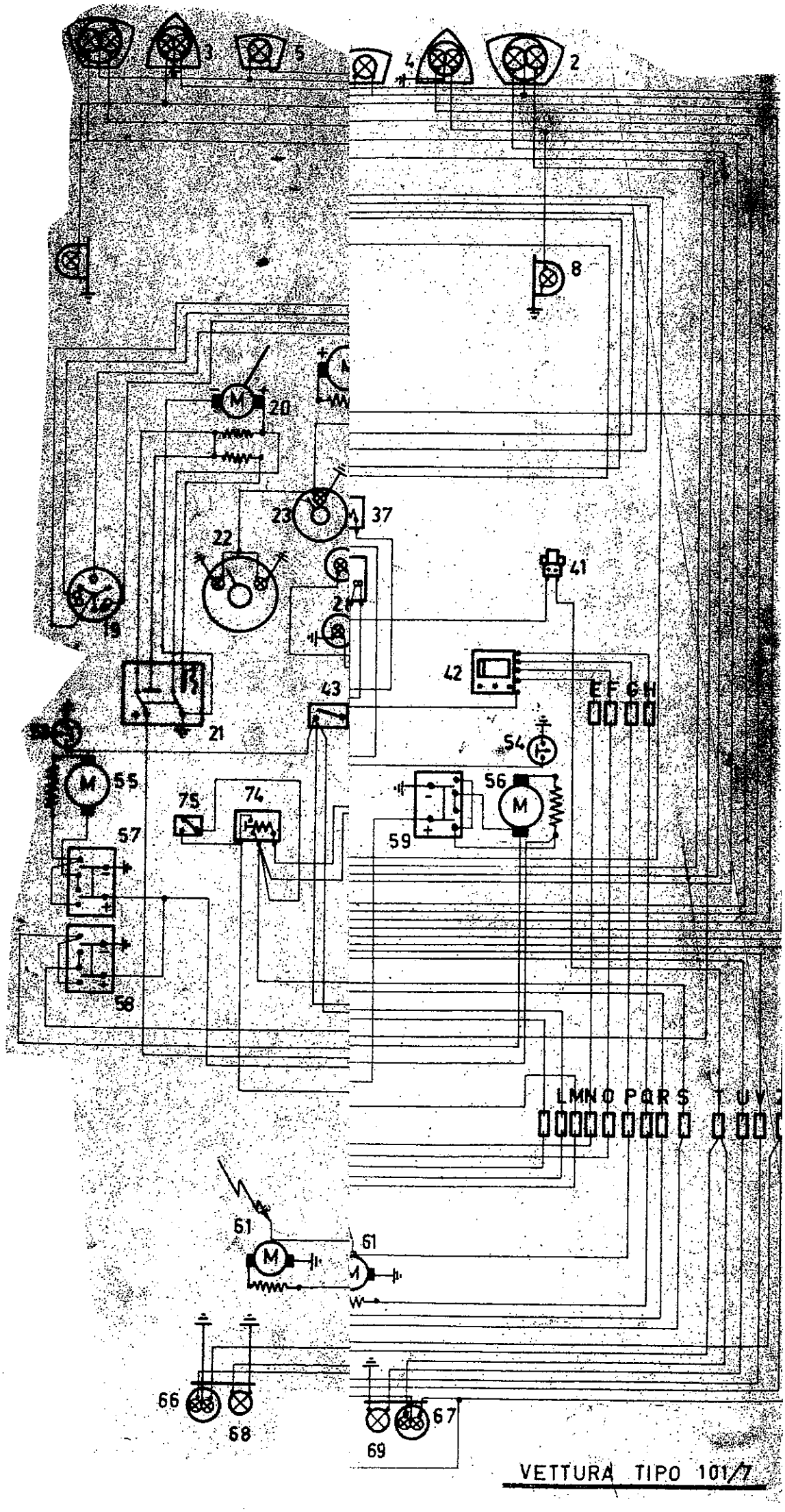


Instrument and control panel - C O N V E R T I B L E

1	Speedometer
2	MBVScounter
3	Water temperature gauge
4	Fuel gauge
5	Oil pressure
6	Amperometer
7	Oil termometer
8	Fuel pump warning light
9	windshield wipers control switch
10	Ignition
11	Warm air control switch
12	Fuel pump commutator
13	Low light and fog light switch
14	Headlight switch
15	Cigarette lighter
16	Dash board light switch
17	Warm air from engine compartment warning light
18	Left-right turning signal warning light
19	Position light warning light
20	Headbeam warning light
21	Heating control switch
22	Radiator throttle and fan control switch
23	Hot water circulation control switch
24	Air ventilation on driver feet control switch
25	Central ventilation control switch
26	Interior illumination switch
27	Starter
28	Map box
29	Turning & front lights control lever.

MASERATI Automobili MODENA	MISURE IN CENTIMETRI PER VETTURA 3500 G.T. CONVERTIBILE	31





VETTURA TIPO 101/7

F I T T I N G S

1 Front left headling
2 Front right headling
3 Position light and left direction light
4 Position light and right direction light
5 Left fog light
6 Right fog light
7 Direction indicator - left
8 Direction indicator - left
9 Electric horns
10 Generator
11 Under bonnet and engine illuminating light
12 Switch for the above light
13 Ventilation fan magnet
14 Magnetic thermical switch
15 Engine housing ventilating motor
16 Coils
17 Starter motor
18 Current connector
19 Starter
20 Windscreen wiper
21 Switch for windscreen wiper
22 Mileage meter
23 Water thermometer
24 Fuel gauge
24 Oil pressure counter
26 Revolution counter
27 Red warning light for flashing direction
28 High beam indicator
29 Red warning light for generator
30 Blue warning light for headlight
31 Sliding contact of the horn button
32 Electric watch
33 Operating pannel for lights
34 Switch for box light
35 Box light
36 Generator regulator
37 Horns relay
38 Deciolux relay
39 Direction relay
40 Central earth
41 Stop switch
42 Radio
43 Switch for ceiling lights
44 Switch for fog lights and low beam lights
45 Operating pannel lights

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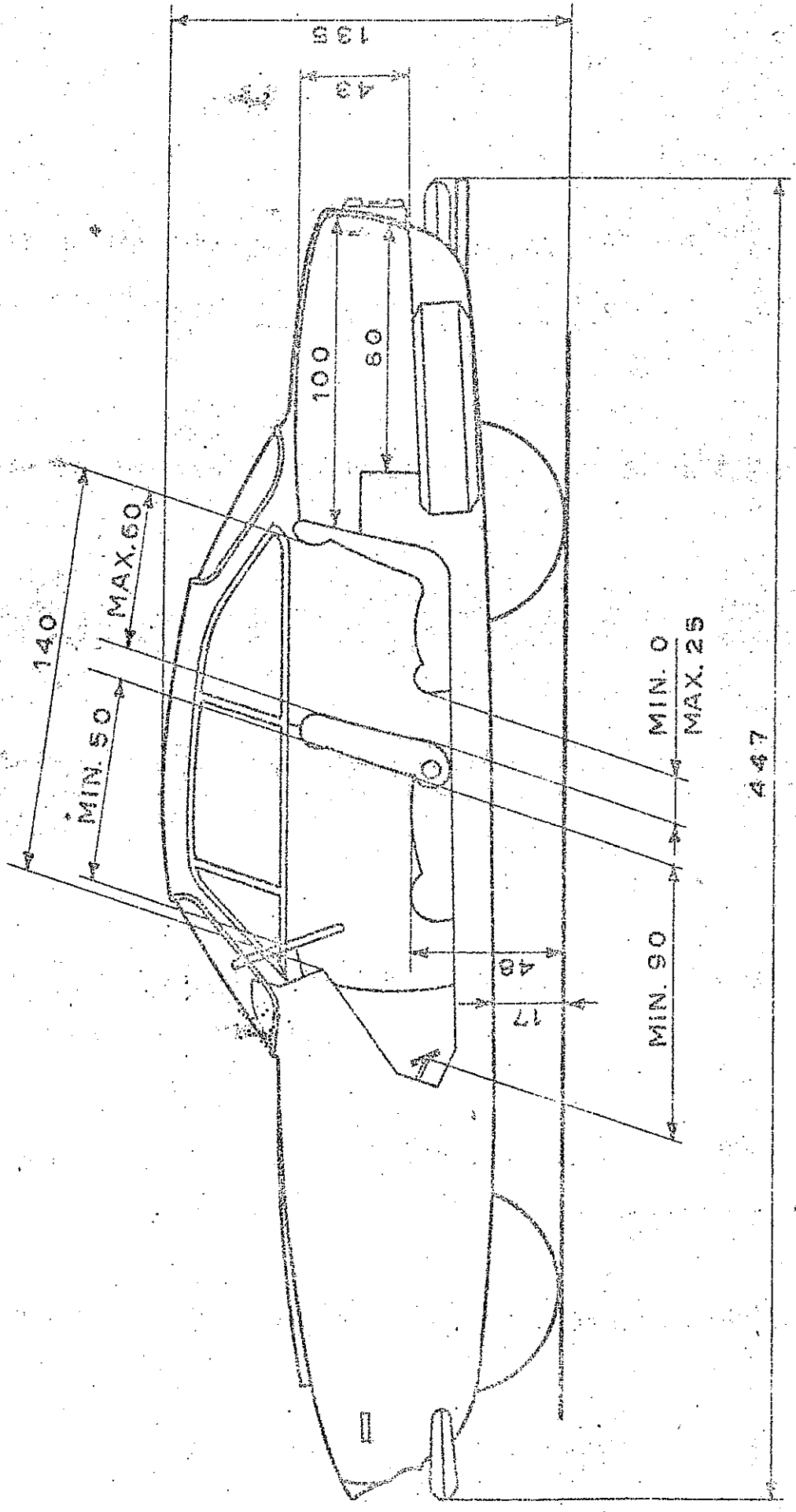
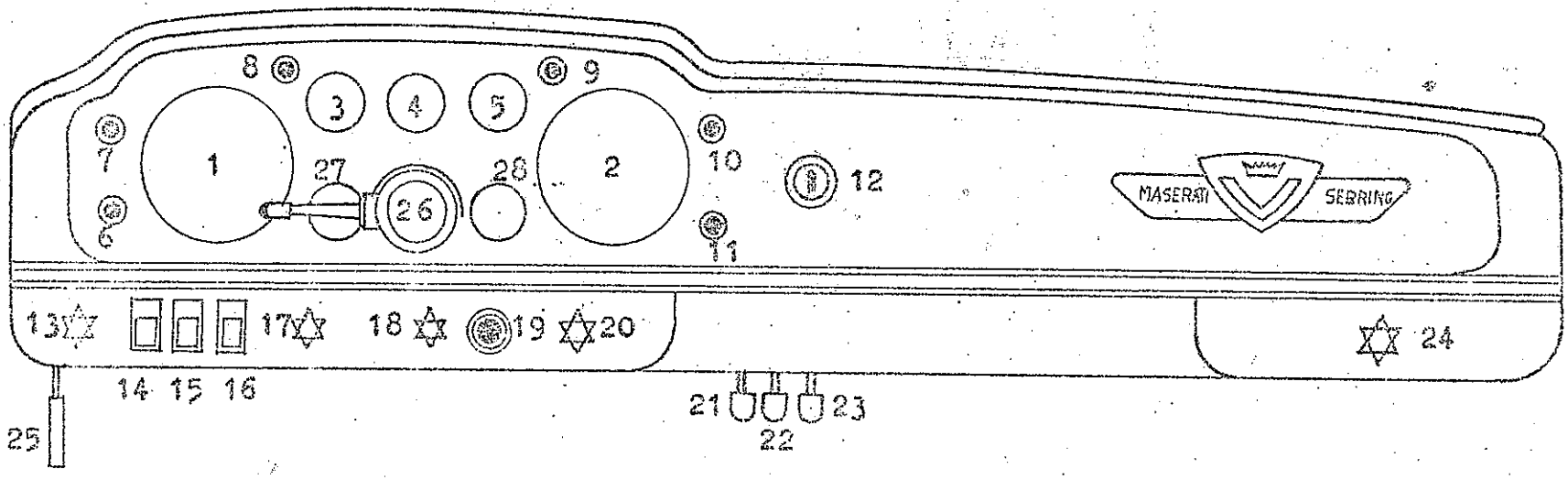
Nº 46 Cigarettes lighter
47 Ventilator warning light
48 Ventilator magnet warning light
49 Ventilator swich
50 Thermical swich and injection pump warning light
51 Switch for reverse light
52 Fuses Box
53 Button swich on right door for ceiling lights
54 Button swich on left door for ceiling lights
55 Left window regulator motor
56 Right window regulator motor
57 Left window regulator switch
58 Left switch for right window glass
59 Right switchfor right window glass
60 Steering column and control
61 Radio areal
62 Battery
63 Ceiling lights
64 Lights with switch in the boot
65 Petrol level float
66 Left position and rear flashing lights
67 Right position and rear flashing lights
68 Left stop light
69 Right stop light
70 Left reverse light
71 Pressure switch
72 Number plate light
73 Flashing relay
74 Injection pump relay
75 Injection pump safety switch
76 Fuel pump
77 Instrument illumination rheostat

F U S E S B O X

I Fuse for left high beam light
II Fuse for right high beam light
III Fuse for low beam light
IV Fuse for position, warning, number plate and reverse
V Fuse for left window regulator
VI Fuse for window regulator - right
VII Fuse for windscreen wiper and direction light
VIII Fuse for interior lights, panel and watch
IX Fuse for radio and cigarette lighter
X Fuse for ventilators and warning lights
XI Fuse for fuel pump
XII Fuse for stop lights, generator, warning lights and flashing lights.


135
43
100
80
140
MAX.60
MIN. 50
MIN. 0
MAX. 25
447
48
17
MIN. 90



PANEL INSTRUMENTS AND CONTROLS OF COUPE' "S"

1 Speedometer
2 Revs counter
3 Water thermometer
4 Fuel level indicator
5 Oil pressure indicator
6 Head lamps warning light
7 Positionlights indicator
8 Right and left direction lights indicator
9 Generator warning light
10 Radiator fan warning light
11 Ventilation and heating fan warning light
12 Ignition key
13 windshield wiper control
14 Fown driving lights
15 Headlights control
16 Ventilation and heating fan switch
17 Dash-board illumination control
18 Choke
19 Petrol pump warning light
20 Interior illumination control
21 Main throttle control
22 Secondary Throttle control
23 Hot water circulation control switch
24 Map box
25 Bonnet opening lever
26 Front and direction lights control
27 Ammeter
28 Oil temperature gauge

I M P O R T A N T

This vehicle has an adjustable silencer approved by the local Department of Civil Motoring (Ispettorato Compartimentale della Motorizzazione Civile e Trasporti in Concessione). The terms of the omologation are stamped on the silencer.

The omologation was made according to the pressures with the vehicle at stand, the motor running at maximum revolutions and a noise recorder situated at 7 meters distance from the automobile longitudinal axle, in correspondence with the exaust tube end, either on the right and left side, in the open, with no trees in the surroundings, reflecting walls or any slight back ground noise.

But each vehicle, although being regularly omologated as far as the silencer is concerned, may exceed the noise prescribed limits when the engine, at high revolution and under strong acceleration, is forced to obtain the maximum performances.

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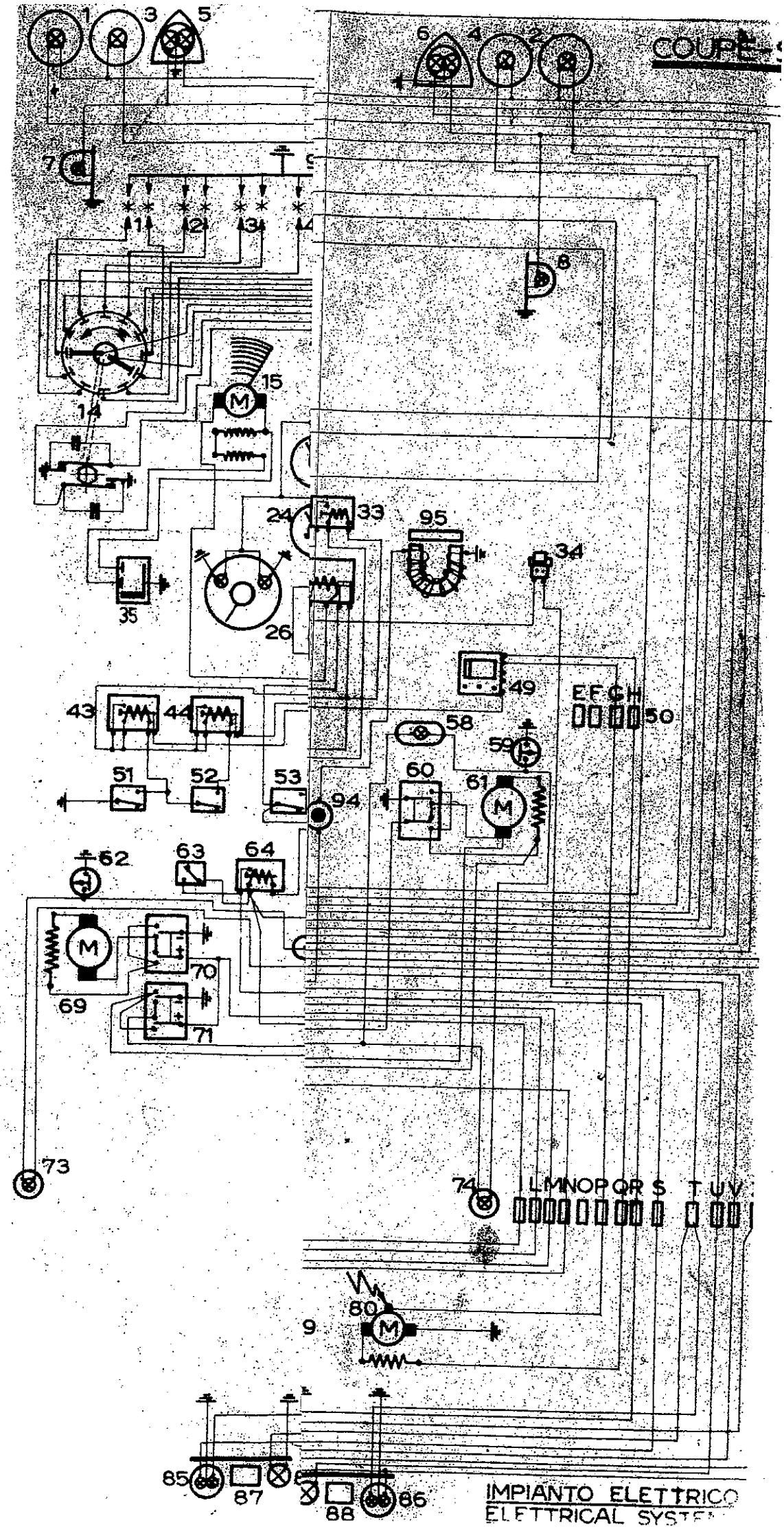
^^^^^^^^^^^^^^^^^

We do not guarantee that this silencer will conform with the regulatios laid down by the ministery, and do not guarantee that it will remain below the prescribed noise limit under all conditions of use.

^^^^^^^^^^^^^^^^^
^^^^^^^^^^^^^^^^^

In order that you will be able to continue to drive and anjoy your Maserati to the fullest extent, the factory, OFFICINE ALFIERI MASERATI S.p.A., Via Ciro Menotti, 322 - MODENA -Italy, will be only too glad to furnish any information concerning the use and maintenace of the automobile.


COUPE
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I L M N O P Q R S T U V
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88
86
IMPIANTO ELETTRICO
ELETTRICAL SYSTE

1) Left front lowlight
2) Right front lowlight
3) left front headlight
4) Right front headlight
5) Position light and left side flashing light
6) Position light and right side flashing light
7) left side flashing light
8) Right side flashing light
9) Electromagnet on the fan
10) Front motor for heating and ventilation
11) Alternator
12) Thermic switch for electromagnet
13) Air horn blower
14) Distributor for spark plugs ignition
15) Windshield wiper
16) Rear motor for ventilation and heating system
17) Lamps for illumination of engine compartment
18) Coils
19) Starter
20) Pressure switch on the oil ducts.
21) Water termometer
22) Fuel gauge
23) Oil pressure gauge
24) Ammeter
25) Oil termometer
26) Speedometer
27) RPM counter
28) Electric watch
29) Engine compartment illumination switch
30) Starting and ignition commutator
31) Relais for flashing light
32) Transistors regulator for alternator
33) Relais for Air horns
34) Stop switch on brakes system
35) Windshield wiper commutator to 2 nd speed
36) Red warning light for flashing light
37) Yellow warning light for rear defroster motor
38) Green warning light for low light and position light
39) Blue warning light for headlight
40) Contacts on the steering column
41) Relais for flashing light
42) Deviolux for lights control
43) Relais for lowlight and position light
44) Relais for headlight
45) Yellow warning light for ventilators and heating
46) Red Warning light for electromagnetic ventilator
47) Cigarette lighter
48) Instruments illumination reostat
49) Radio

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50) Radio attachments
51) Low and position light switch
52) Headlight switch
53) Heating ventilators control switch
54) Rear defroster control switch
55) Thermic switch and red warning light for inyection pump
56) Transmission reverse gear switch
57) Fuses Box
58) Interior right front light
59) right door lights switch
60) Right window electric switch
61) Right window motor
62) Left door light switch
63) Injection pum safety switch
64) Relais for injection pump
65) Steering wheel lights control
66) Steering wheel attachment
67) Ashtray illumination switch
68) Ashtray lights
69) Left Window motor
70) Left window electric switch
71) Left and right window electric switch
72) Interior left front light
73) Left door red light
74) Right door red light
75) Rear windshield defroster motor
76) Interior left light and switch
77) Interior right light and switch
78) Injection fuel pump motor (number 1)
79) Generator
80) Radio areal motor
81) Rear contact screw (12) attachmants
82) track illumination light
83) Luggages compartment illumination switch
84) Floater with reostat for fuel gauge
85) Position light lamp and left rear stop
86) Position light lamp and right rear stop
87) Left rear catadioptre
88) Right rear catadioptre
89) Left rear flashing lamp
90) Right rear flashing lamp
91) Reverse white lamp
92) Plate illumination lights
93) Spark plugs
94) Air conditioner thermostatic control switch
95) Electromagnet on blower
96) Arcing contact for elettromagnet fan
97) Injection fuel pump motor (number 2)
98) Commutator for double pump for fuel injection.