

P O P E R 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 this 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 bonnet and are the only numbers legally recognized when the car is sold. They are copied on the certificate of origin and on the car's log-book.

MAIN SPECIFICATIONS AND DATAM O T O R

Number of cylinders	8 90°V
Bore and stroke	68 x 85 mm.
Capacity per cylinder	517 cc.
Total capacity	4136 cc.
Maximum power at 5200 r.p.m.	260 HP DIN
Compression ratio	8.5
Combustion chamber volume	68.933 cc.

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 auto-tensioning steel plates.

With a normal cold clearance between cups 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.



LUBRICATION

Lubrication 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 165° - 180°F. Water flow through the radiator is automatically controlled by one thermostat fitted on the cylinder heads. This device ensures 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 3° which is equal to a piston stroke of 6.021".

Automatic advance: 30° (on crankshaft).

Total maximum ignition advance: 33° (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: MARILLI heavy-duty.

Medium-duty spark plugs:

BOSCH 215 P

BOSCH W205 T 28

AUTOLITE AG 7

Heavy-duty spark plugs:

BOSCH 235 P

BOSCH W240 T 28

AUTOLITE AG 12

FUEL SYSTEM

Four WEBER 38 DCJL 5 carburetors: 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 carburetors 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 carburetors so that the level inside each bowl is kept constant at any engine speed.

AMICOMORI
 MODENA

ENGINE MOUNTING

The engine is offset to the right by 1 cm. and is supported by three "silentbloes" 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 plain screw driver inserted through the dipstick, that is not signed, must touch oil only at the end.

FIVE SPEED GEARBOX 65 125 PARTS

1st speed	0,366	=
2nd speed	0,508	=
3rd speed	0,812	=
4th speed	1	=
5th speed	1,174	=
Reverse	0,359	=



Position of gear in Box 95325

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
	13/53	=	3.91	=	0.302
	11/45	=	4.09	=	0.244



CARATTERISTICHE

Final drive ratio $13/46 = 0.2825 = 3.54$.

Tires: 210 x 15" - roll radius 2.30 m.

ROAD TESTED DATA 1991 - 5520 QUARDOX

engine r.p.m.	1st gear 3.0	2nd gear 1.713	3rd gear 1.24	4th gear 1	5th gear 0.77
1000	7	13	16	22	26
1500	10.5	20	27	37	39
2000	14	26	36	44	52
2500	18	33	45	55	63
3000	21	39	54	66	73
3500	25	45	73	77	81
4000	28	52	71	88	104
4500	32	59	90	99	111
5000	35	63	99	110	130
5500	39	71	101?	121	147
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.

P E S I

Maximum weight allowed on each axle with 205 x 15" tyres 1250 Kg.
Unladen car weight 1000 Kg.
Car kerb weight 1000 Kg.

AUTOMATIC TRANSMISSION

This car can be fitted with the BORG WARNER type 3 automatic transmission. The shift lever is centrally fitted and has the following control positions:

- 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 stalling 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 ACIP ROTEL ATF.

The fluid dipstick is fitted at the right side of the engine and the transmission sump capacity is approx. 15.6 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.

MAASERATI



AUTOMOBILI
MODENA

MASERATI 4 DOOR CAR
DRIVING AND SERVICING
MANUAL (from car number 1412)

7/A

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 high 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, HV telescopic shock absorbers and stabilizer.

REAR SUSPENSION

Longitudinal leaf springs with two double acting telescopic shock absorbers.

A transverse stabiliser 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 bar.

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 2.P. 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 254 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 277 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 rim, at hub centre height, is between 0 and 2 mm.

The caster angle is 1°.

The center 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/cm ² ca.
	rear	1.9 Kg/cm ² ca.

Tyre pressures, after cold condition for not constant speed higher than 100 Km/h	front	2.5 Kg/cm ² ca.
	rear	2.5 Kg/cm ² ca.

Tyre pressures, from cold condition, for constant speed, on motorway, of 200 Km/h	front	2.6 Kg/cm ² ca.
	rear	2.5 Kg/cm ² ca.

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

MISCELLANEOUS 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 60.

Starter motor: 1.0 HP. BOSCH type.

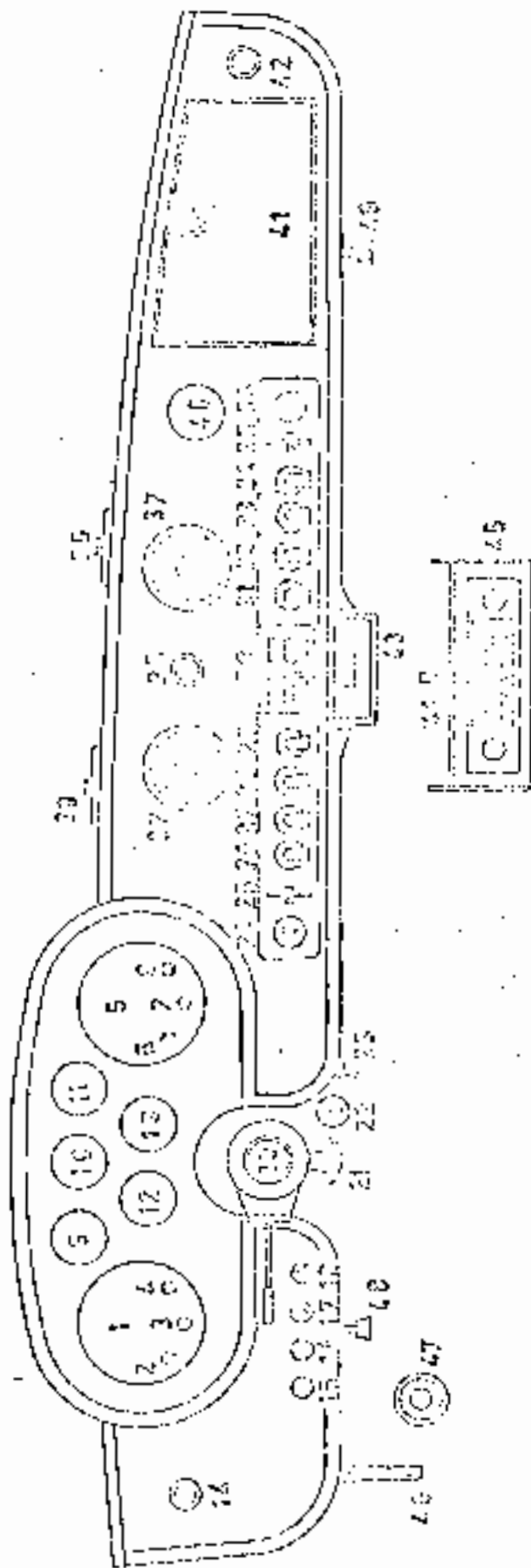
Horns: Two FIAT air horns with electromagnatic compressor, with push button control on steering wheel. A normal horn is also fitted, and this can be switched on/off by the same change-over lever which controls lights and direction indicators.

Nose Bolt: It is fitted with 12 faces 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.



- DESIGNED FOR L.R. FORME -



FIGURE 1
R.H.D.

FIGURE 2
R.H.D.

R.H.D.

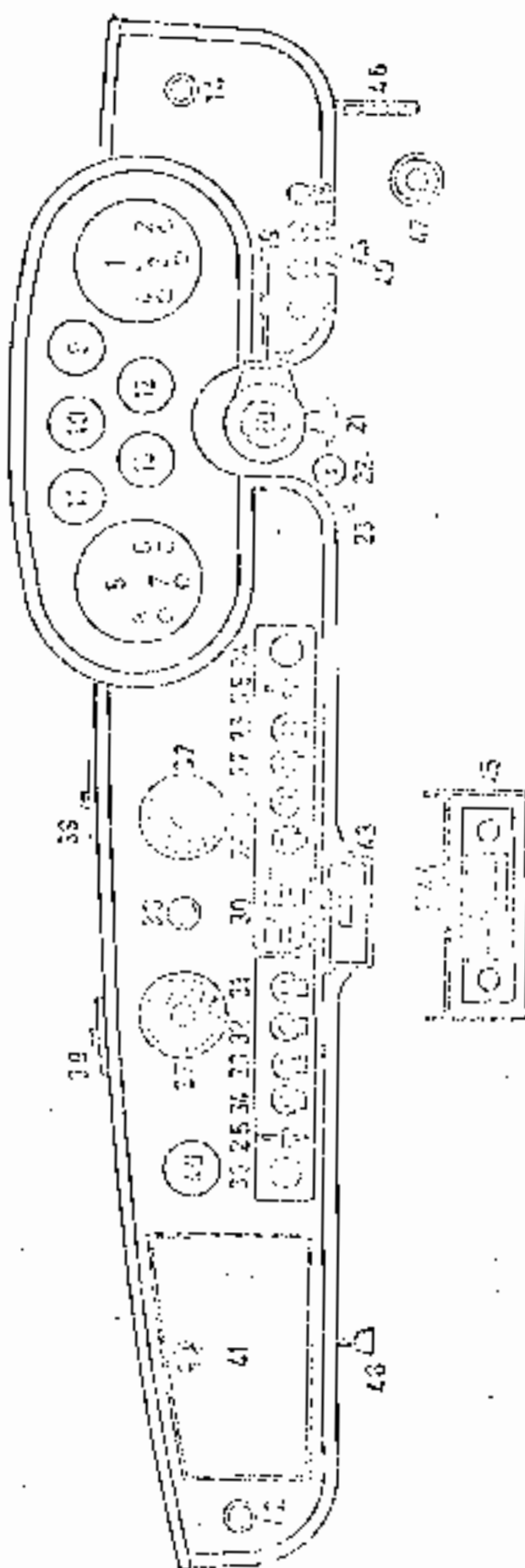


FIGURE 1 FOR R.H.D.

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 end 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. Aerial switch control
45. Radio
46. Bonnet release lever
47. Windscreen washer pump
48. Driver's side ventilation outlet control (up to car 217)
49. Passenger's side ventilation outlet control knob

AMERICAN
AUTOMOBILE
CORPORATION

GENERAL 6 CYCLE CAR
DRIVING AND SERVICING
MANUAL (From car number 1412)

3

EXHAUST SYSTEM

Your car is fitted with an exhaust silencing assembly which has been approved by the "Ministero Generale della Motorizzazione" (the Italian Government Body for Automobiles); the approval reference has been placed on silencer.

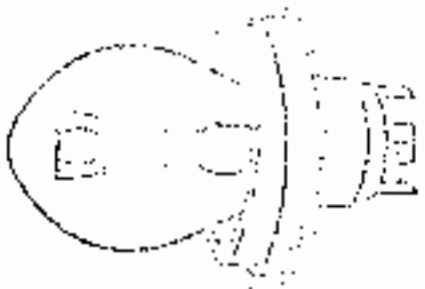



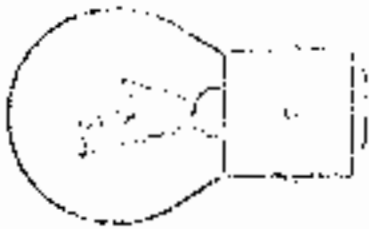


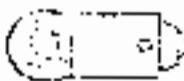
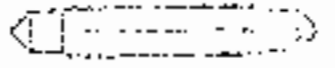
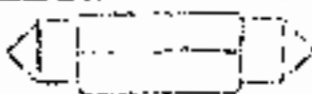
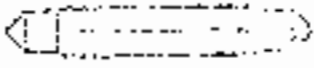
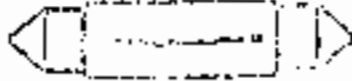
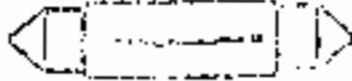
CONFORMITY OF SILENCERS TO THE ITALIAN GOVERNMENT STANDARDS DOES NOT EXCLUDE THAT IN CERTAIN CONDITIONS, ESPECIALLY WHEN THE CAR HAS BEEN USED FOR A LONG TIME, THE NOISE LIMIT MIGHT BE EXCEEDED.

The Officine Alfieri Benetton S.p.A., Via Carlo Farini 132, 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 Trench front headlamps (amber)	P 45 t 12v - 40-45w.
2 -	Headlamps - Isoline	Phillips 12v 50w.
3 -	Fog lamps (water glass)	Ray 21 s 12v 45w.
4 -	Rear side and stop lights	Ray 15 d 12v 5+20w
5 -	Dashboard lighting green with switch	S 6 12v - 3w.
6 -	Front/rear direction indicators & reverse driving lights	EM 15 s 12v - 20w.
7 -	Front side lamps & number plate lights	EM 15 s 12v 5w.
8 -	Lights on door	RA 9 s 12v - 6 w.
9 -	Instrument & warning lights	D 10/13 - 12v
10 -	Light on cigarette lighter	RA 9 s 12v - 3w.
11 -	Hood, back & car roof lights	s 8.5 12v - 5w
12 -	Position bulb	s 8.5 12v - 1w

CAR DRAWING

	1		6
	2		7
	3		8
	4		9
	5		10
	6		11
			12

SERVICING PRESCRIPTIONS

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 Belt : 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 Filters: 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. Dixiel Fuel Pump: 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 chain's nut on tensioner; remove the back washer and the level by means of a suitable extractor; rotate the cam up to a 0.1 Km. and lock it in this position by refitting the level, the back 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 caliper up to a tolerance of few hundredths of a millimetre. Brake pads should be renewed every 20,000 Km. 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 CLEAR GLASSING BRAKE FLUID.

VENTILATION - HEATING - AIR CONDITIONING

Baselines see illustration at pages 14-15

The air supplied through the right-hand duct (2) flows into the car through the shutter (3), the sliding air blower (4), the transverse duct (5) and the radiators (6). Adjustable flap deflectors (8-10-11) deliver the air to the right seat, to the front seats and to the driver's and passenger's seat. A Worthington centrifugal blower (12), driven by a governor and speed motor (13), controlled by switch (14), 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 rearward, or from inside the car, through the shutter (7) controlled by the lever below the dashboard, when the shutter flap (3) is moved forward. The air coming from manifold (6) goes through the radiators (7) flows over or over into the car according to whether the heating system or the air conditioning is operated.

HEATING SYSTEM

The system consists of: a hot water radiator (22) fitted on the vehicle head and not used by the condenser cooled liquid (25); the tops of the radiators (6); a pressure tank (23) which delivers the hot water to the intake of the engine water pump; a top (26) which is connected to the hot water line and prevents water from returning into the radiator during hot condition. This top should therefore be protected by band or the surrounding air or other anti-interfer.

AIR CONDITIONING SYSTEM

This system consists of the following components:

1. Evaporator assembly, which insulates the front 4 radiators (6); an adjustable injector which expands the compressed Freon 12 thus producing refrigeration; a thermostat (24) which automatically controls and stabilizes the interior car temperature as required in the range of 16°-20°; the flap deflectors which direct the conditioned air as required.
2. Compressor assembly (15): of the open type, which can work at variable speeds, 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 engine (1).

3. Intake valve (18) is supplied by the pressure regulator, which will maintain a constant pressure in the system in the event that the compressor should stop operating. This is a safety device to prevent the system from becoming over-pressured.

The air conditioning system is designed to cool the air to 50°-55° F. and to dehumidify it to 40% relative humidity.



During the cold season, in order to dehumidify the air inside the car and to have the windows constantly deiced, 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 quiet results all the windows should be kept fully closed, especially when air conditioning with recirculation flow is operated.

NOTE: In some atmospheric conditions it is advisable to use the recirculation filter (Fig. 4) 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 seal and connected to the line that leads to the evaporator, and its action being directly controlled by the compressor's delivery pressure. Therefore, higher the temperature, lower will be the quantity of circulating frone. 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 proportionally to the warm air eliminated by the compressor. The valve is equipped with a pressure switch which, in case of the compressor, should the pressure drop below of a limit whatsoever.

4. Electromagnetic coupling: the engagement and disengagement of the compressor is automatically controlled by the thermostat, which operates via an electric fan coil coupling. The coupling absorbs a current of 2.5 Amp.
5. Condenser (18): it consists of a copper coil with aluminium fins and is fitted at the front of the engine radiator.
6. Receiver-filter (19): it contains some adsorbent material which eliminates any moisture from the frone.
7. Tubes: the evaporator (15), the condenser (18) and the expander (5) are interconnected by special tubes (19-20-21) which are suitable for the frone circulation, high pressure and temperatures between -25°C and $+120^{\circ}\text{C}$.

VENTILATION - HEATING - AIR CONDITIONING

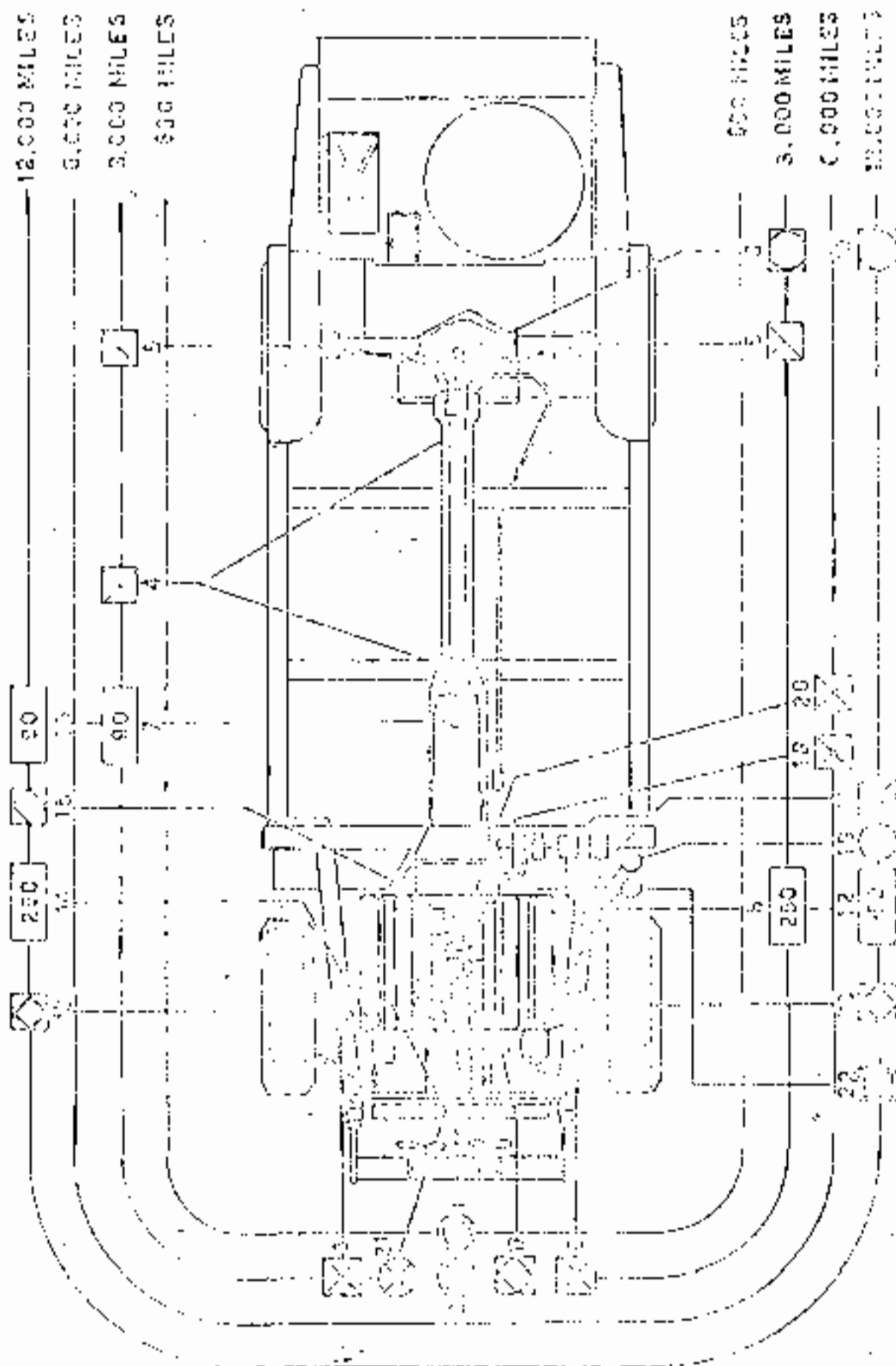
General

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

With the car in motion, or by selecting 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 (35) is rotated.

The air flow from the exterior can be adjusted in volume by the control lever (25) and completely excluded when the lever is moved fully downwards.

In the latter condition, the blower draws air from inside the car through a filter mounted in the control lever (7), and air is provided at the side and back of the dashboard. In such operation the air is recirculated and can be increasingly heated or cooled (Fig. 4).



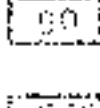
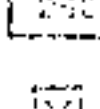


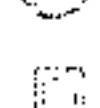
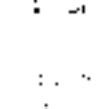
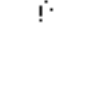


- LUBRICATION DIAGRAM -

MECHANICAL DRAWING OF THE MODEL

1. Frame.
2. Motor.
3. Front end support.
4. Motor on plate - support joints.
5. Front end frame drift.
6. Motor plate.
7. Gearbox.
8. Intermediate shaft.
9. Intermediate shaft.
10. Drive shaft.
11. Gearbox cover.
12. Front end frame.
13. Motor plate.
14. Motor gear.
15. Motor gear.
16. Gearbox.
17. Motor shaft.
18. Gearbox cover plate.
19. Motor shaft support.
20. Motor shaft support.
21. Motor shaft support.
22. Motor shaft support.

MECHANICAL DRAWING OF THE MODEL

- | | | |
|---|------------------------|-------------|
|  | ACIP P1 ROSSA 30-30 | : Motor |
|  | ACIP P1 ROSSA 30-30 | : Motor |
|  | 1) CARBON STEEL | STEEL PLATE |
|  | 2) ACIP P1 ERICA PIGIO | |
|  | ACIP P1 ROSSA 30-30 | |
|  | ACIP P1 ROSSA 30-30 | |
|  | ACIP P1 ROSSA 30-30 | |
|  | ACIP P1 ROSSA 30-30 | |
|  | ACIP P1 ROSSA 30-30 | |

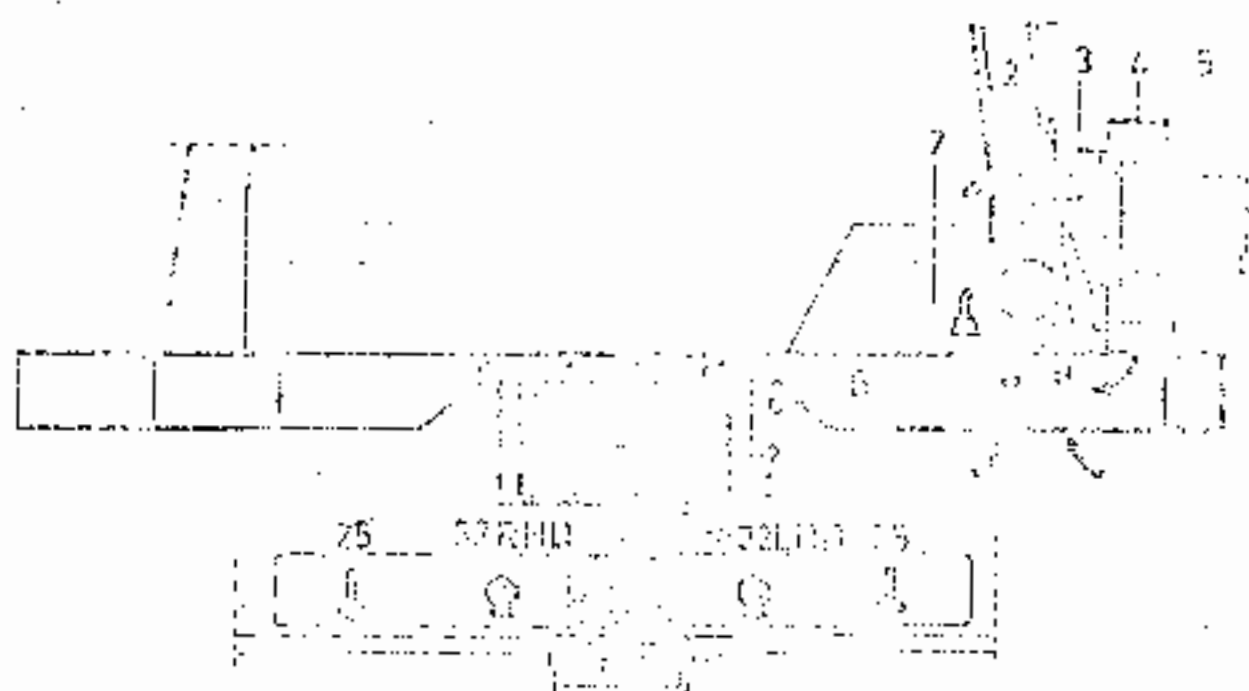


FIG. A - AIR FLOW WITH RECIRCULATION

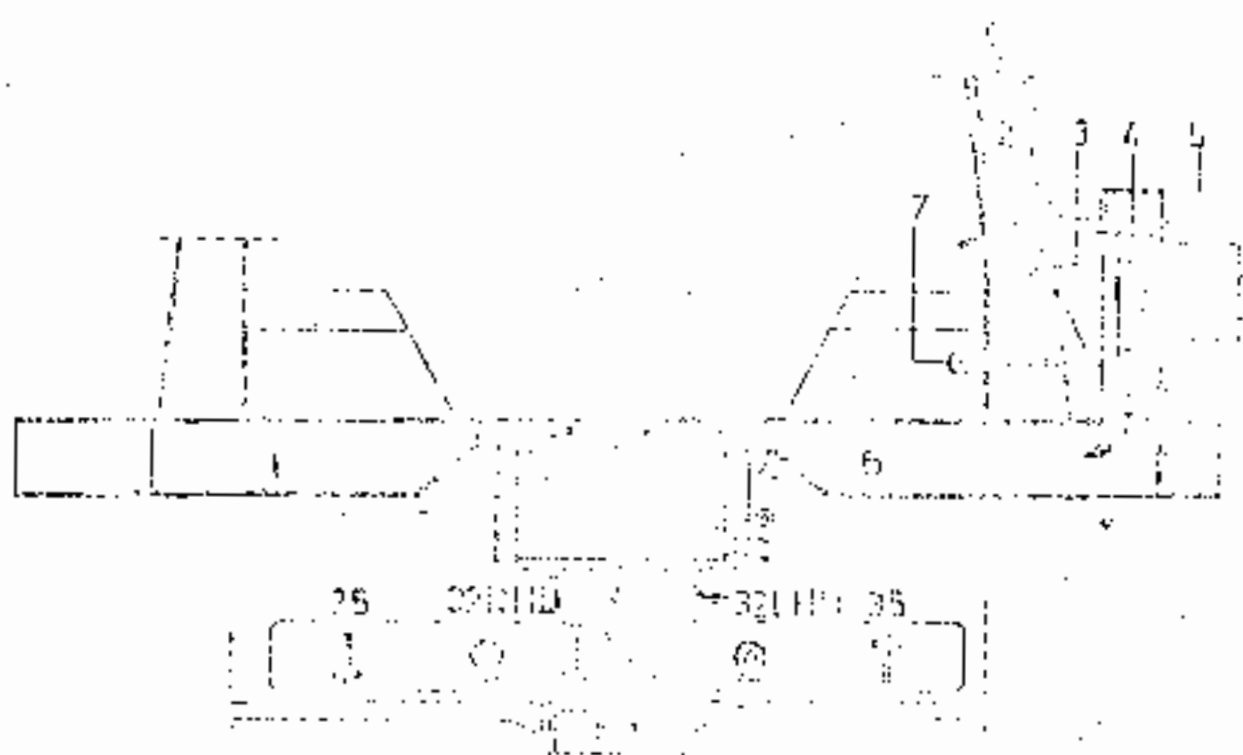
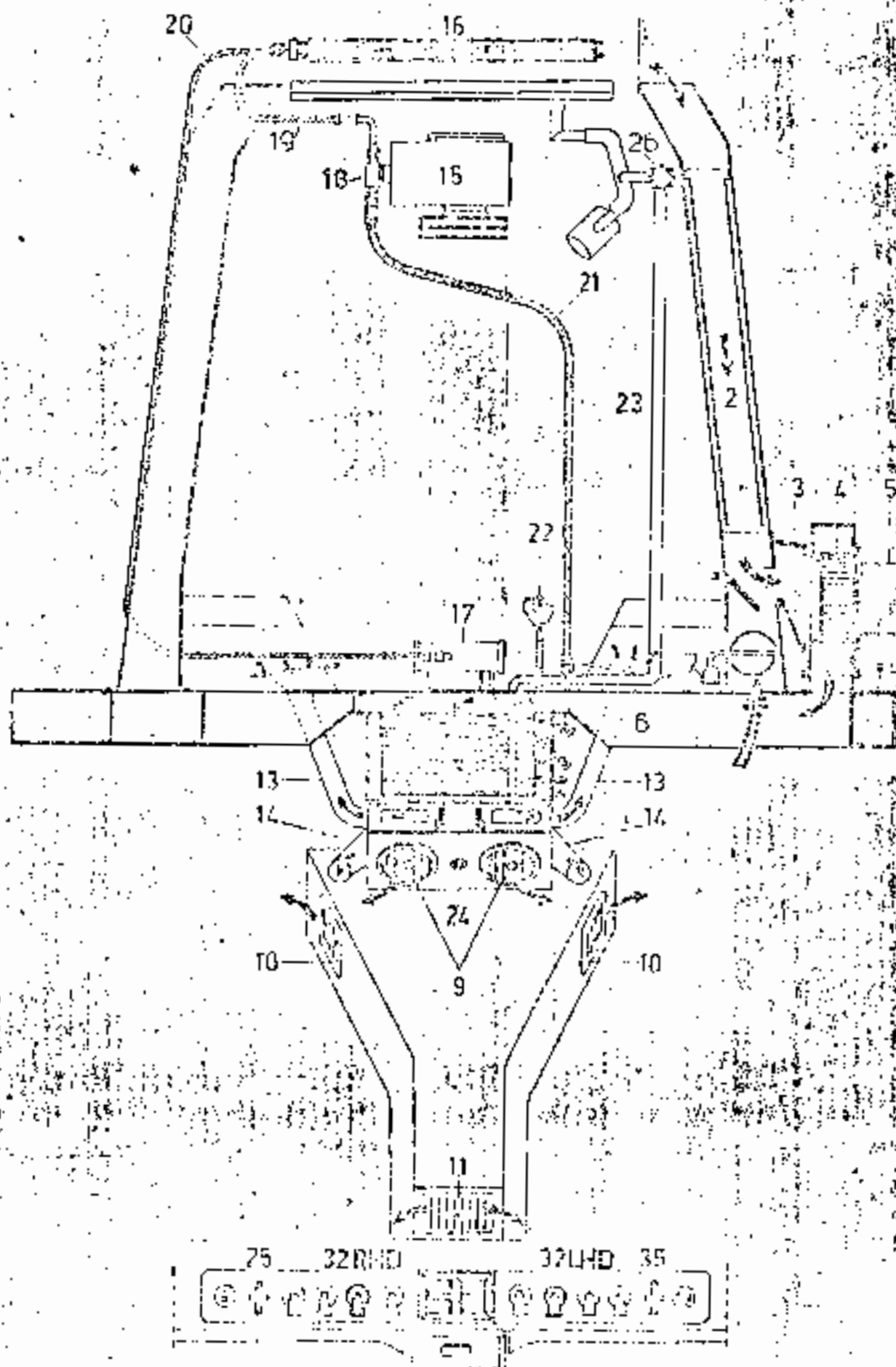


FIG. B - AIR FLOW EXTENSION



AUTOMOBILI
MODENA

DRIVING AND L. VINCIO
PATENT (KNOX NUMBER 1412)



AGRICULTURAL MACHINERY REPAIR AND MAINTENANCE

Item	Quantity	Remarks
Supply		AGPP #1 100% SAE 30
Fuel tank		AGPP #1 100% SAE 30
Engine oil	10	AGPP #1 100% SAE 30 1. 100% SAE 30 2. 100% SAE 30
Engine oil	10	AGPP #1 100% SAE 30
Carbon	10	AGPP #1 100% SAE 30
Water pump	10	AGPP #1 100% SAE 30
Valve	10	AGPP #1 100% SAE 30
Brake	10	AGPP #1 100% SAE 30
Clutch	10	AGPP #1 100% SAE 30
Drive shaft	10	AGPP #1 100% SAE 30
Transmission	10	AGPP #1 100% SAE 30
Engine	10	AGPP #1 100% SAE 30
Generator	10	AGPP #1 100% SAE 30
Air conditioning	10	AGPP #1 100% SAE 30

General Note: This form is to be used for recording the quantity and description of parts and materials used in the repair and maintenance of agricultural machinery. The quantity should be recorded in the "Quantity" column and the description in the "Remarks" column. The unit of measurement should be indicated in the "Remarks" column. The form should be filled out by the person responsible for the repair and maintenance work.



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 Headlight switch.
- 10 Horn 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 Horns connection.
- 27 Windscreen wiper motor.
- 28 Choke control-on turning light switch.
- 29 Warning plate 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 Indicator with warning light:
 - a) main beam - blue
 - b) direction indicators - red
 - c) side lamp - green.
- 39 Indicator, blower - control with warning light:
 - 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 mirror 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



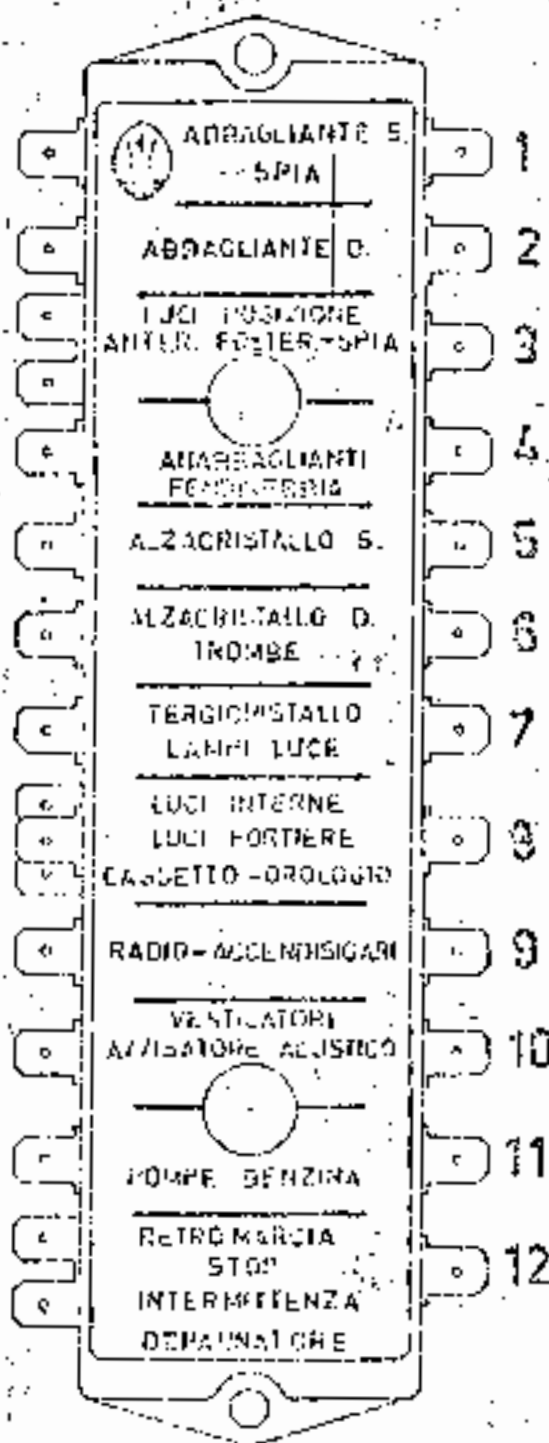
- 88 Terminal block.
- 89 Trunk illumination switch.
- 90 Petrol tank float sender unit - left tank level and reserve.
- 91 Fuel feed pump - left tank.
- 92 Rear window resistance defroster.
- 93 Trunk lamp illumination.
- 94 Radio loudspeaker.
- 95 Battery.
- 96 Petrol tank float sender unit - right 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 two 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 SWITCH





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.