

2nd Edition

FIAT
850 **spider**

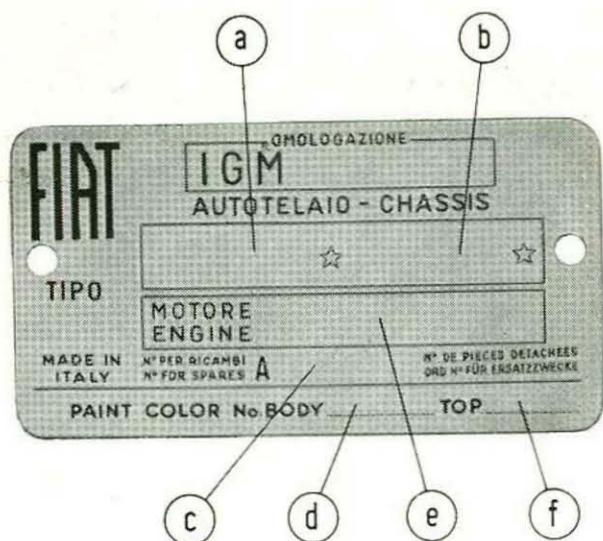
Version 140

SUPPLEMENT TO THE "INSTRUCTION BOOK"

FIAT 850 Spider - Version 140

Only the main features of this car differing from standard production spiders are described in this supplement. For all remaining parts, refer to the Instruction Book.

IDENTIFICATION DATA

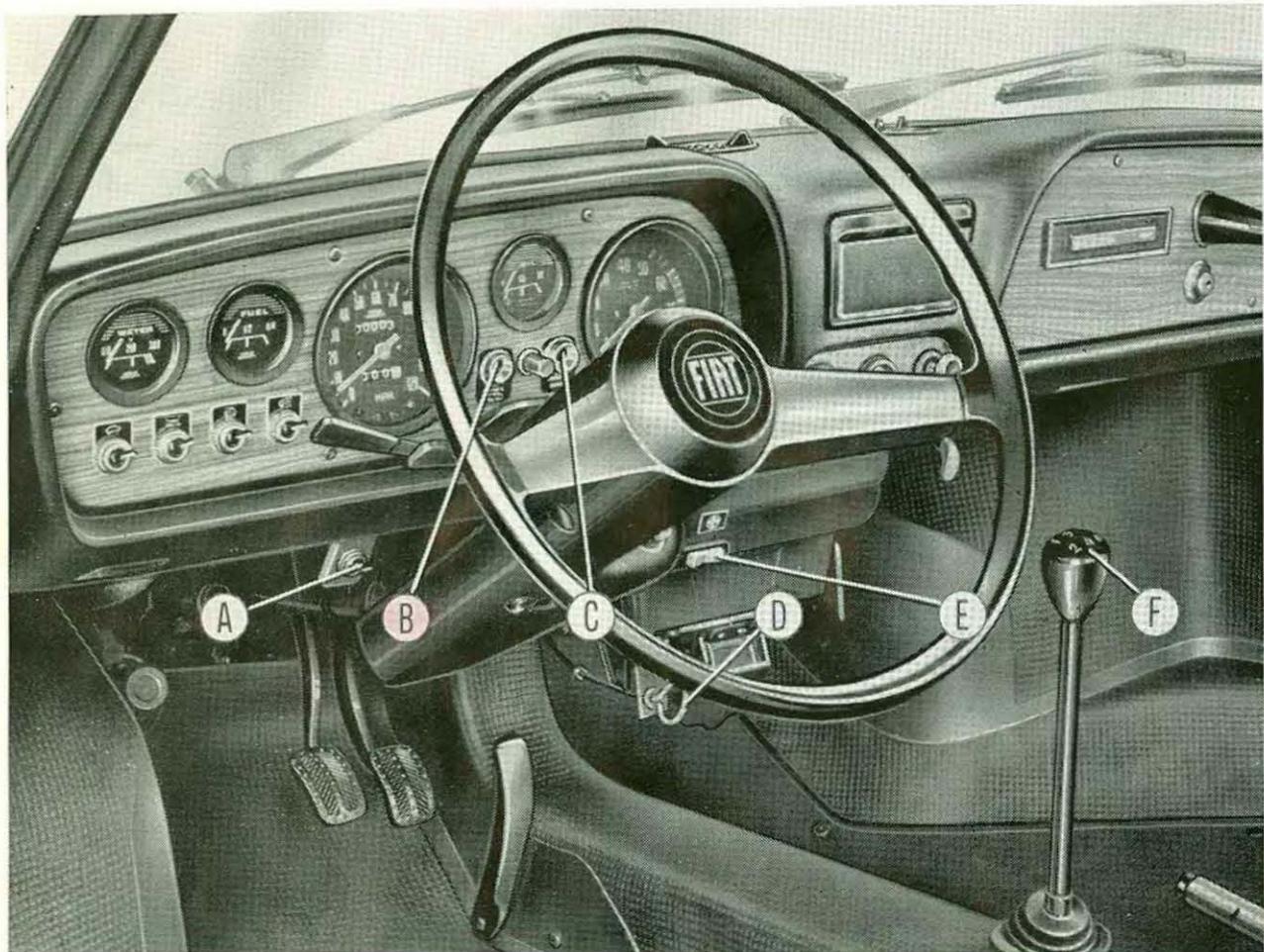


IDENTIFICATION PLATE

- a - Chassis Type.
- b - Chassis Number.
- c - Order Number for Spares (preceded by letter **A** which identifies the **140 version** cars and must always be quoted in the orders for spares).
- d - Body Paint Color Number.
- e - Engine Type.
- f - Top Paint Color Number (if any).

ENGINE

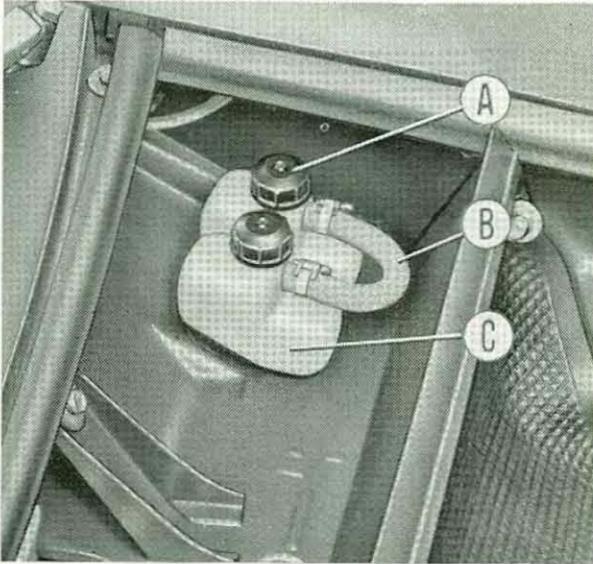
Type	100 GS 3.040
Bore and stroke	64 x 63,5 mm (2.52 x 2.49 in)
Total piston displacement	817 cc
Compression ratio	10 to 1



GAUGES AND CONTROLS

- A. Vehicular hazard warning signal switch:** turns ON (independently of key position in lock switch) the front and rear direction indicators which will all flash simultaneously.
- B. Vehicular hazard warning signal pilot light** (red, flashes when switch **A** is ON).
- C. Brake system low pressure warning light** (red): lights up if pressure in either brake hydraulic circuit (front or rear) is excessively low due to leakages or line failure. A switch on the hand brake lever allows the driver to make sure that the bulb is operable and at the same time indicates also if the lever is pulled upwards (brake applied).
- D. Throttle hand control.**
- E. Three-position electrofan switch:**
1. Pressed in at right: fan turns slowly.
 2. Pressed in at left: fan turns fast.
 3. Intermediate position: fan OFF.
- This switch is identified by an ideogram on a decal.
- F. Gearshift lever knob:** with gating pattern engraved. When reverse is engaged, with lock switch in position **1**, the back-up light is turned ON.

BRAKES



Brake system with front and rear independent circuits.

Two separate fluid reservoirs: one for each circuit.

A. Front brake hydraulic circuit fluid reservoir.

B. Reservoir interconnection hose.

C. Rear brake hydraulic circuit fluid reservoir.

ELECTRIC SYSTEM

BATTERY

Capacity at 20 hrs discharge rate 50 Amp/h

An indicator, called the "Delco Eye", lights up to warn that electrolyte level is low: in this case, check level in each cell and top up as required with distilled water.

GENERATOR

Marelli type, power	}	continuous	360 W
		peak	435 W
Cut-in speed (lights out)	}	engine abt.	928 rpm
		car in 4th gear	20.5 km/h (12 ³ / ₄ mph)

Maintenance



When proceeding with an engine overhaul or **every 50.000 km (30,000 miles)** clean commutator carefully with a dry cloth, check brushes for wear and contact conditions and replace, if necessary, seating the new brushes on commutator.

With Fiat **MR 3** grease lubricate commutator and drive end head ball bearings.

FUSES

Fuse **A** (page 41 of the Instruction Book) protects also the circuitry of the back-up light and brake system warning light **C** (page 3 of this supplement).

Fuse **B** (page 41 of the Instruction Book) protects also the vehicular hazard warning lights circuitry.

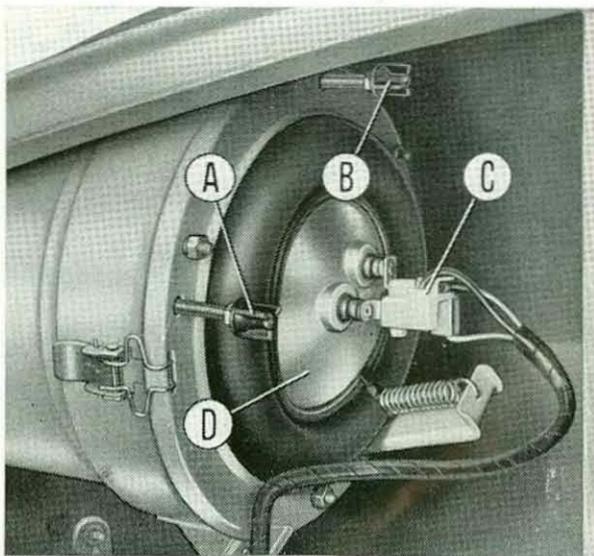
BULBS

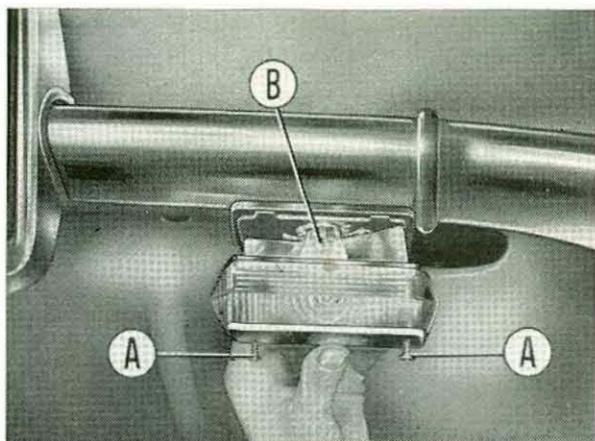
LOCATION	TYPE	
	ORIGINAL EQUIPMENT	SAE EQUIVALENT
— Headlamps (high beam and low beam)	« Sealed Beam » headlamp unit 6012	
— Front lamps direction indicators parking lights	} 12V-5/20W FIAT Norm. 1/08569/90	No. 1034-12V-32/4 cp
— Tail lamps stop lights parking		
— Tail lamps direction indicators back-up light	12V-21W FIAT Norm. 1/41481/90	No. 1073-12V-32 cp
— Number plate lamps	12V-5W FIAT Norm. 1/08577/90	No. 67-12V-4 cp
— Engine compartment lights — Courtesy lights	} 12V-5W FIAT Norm. 1/08630/90	—
— Instrument panel light — Front compartment light — Cigarette lighter housing indicator — Direction indicators tell tale — Headlamp high beam indic. — Generator charge indic. — Insufficient oil pressure indic. — Fuel reserve indicator — Parking lamps indicator — Vehicular hazard warning signal pilot light — Brake system warning light		
	12V-3W FIAT Norm. 1/08583/90	No. 53-12-1 cp

Headlamps

The headlamps are fitted with SAE 6012 Sealed Beam unit. For headlamp aiming proceed as recommended by SAE standards.

- A.** Beam horizontal aiming adjustment screw.
- B.** Beam vertical aiming adjustment screw.
- C.** Terminal plug.
- D.** Headlamp unit.





Front parking and direction indicator lamps.

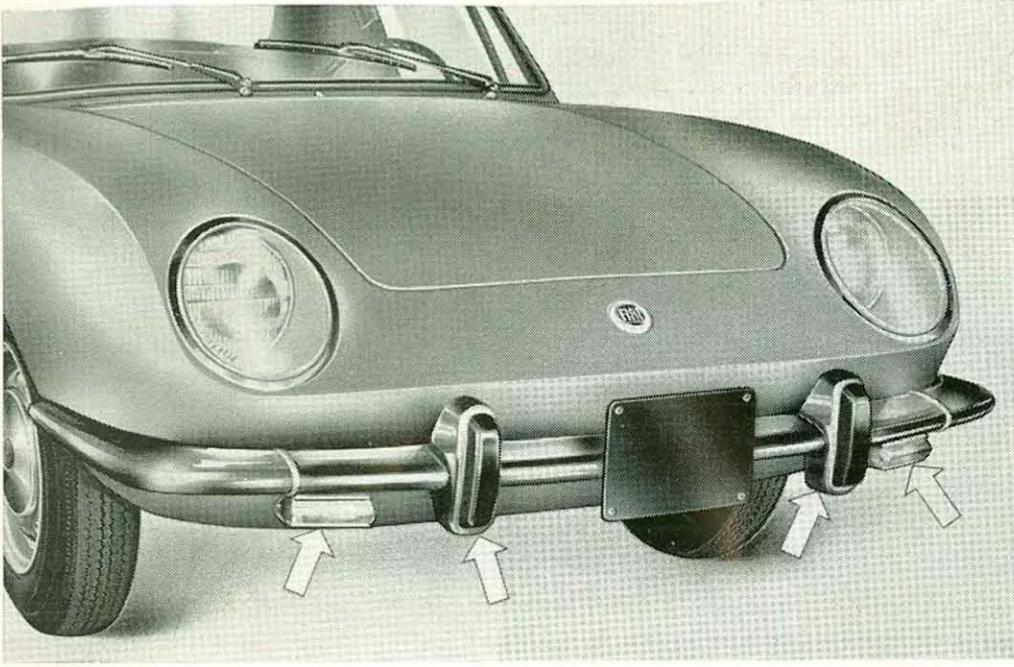
- A. Lens mounting screws.
- B. Bayonet-coupled bulb.

Note - *This figure applies also to the rear back up lamp.*

BODY

- Front and rear bumpers fitted with plastic lined guards. As a result, the overall length of car has changed to 3828 mm (150.7 in).
- New location and design of front parking and direction indicator lamps.
- Addition of a back-up lamp on car rear right side.
- Swivelling rear view mirror on the outside of drivers side door adjustable from driver's seat.
- Sun visors on windshield top, as standard equipment.
- Windshield wiper with non-glare metal components.
- Non-glare steering wheel spokes and horn button.

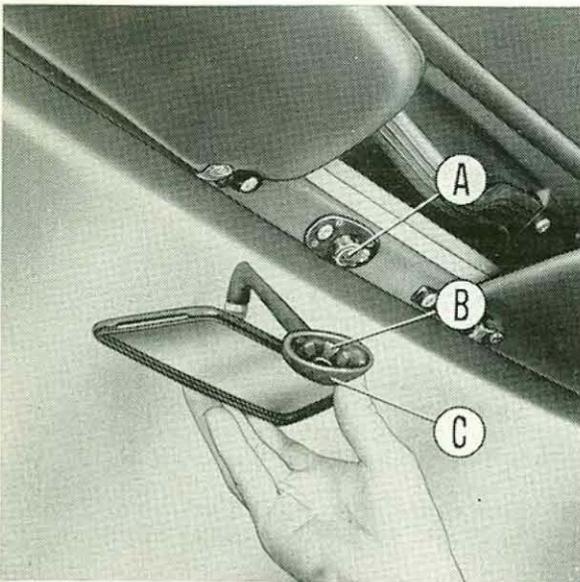




— Collapsible inner rear view mirror.
 If the mirror comes off its seat, following an impact, it will not cause injuries or damages. To refit it engage spring **B** on stud **A** by pressing on

base **C**. Engagement is of the snap on type.

— Front seat squab with locking device.
 To tilt the squab press in the button and lift.



These tables supersede, for U.S. area drivers' convenience, the specifications contained in the "Instruction Book".

FILL-UP DATA

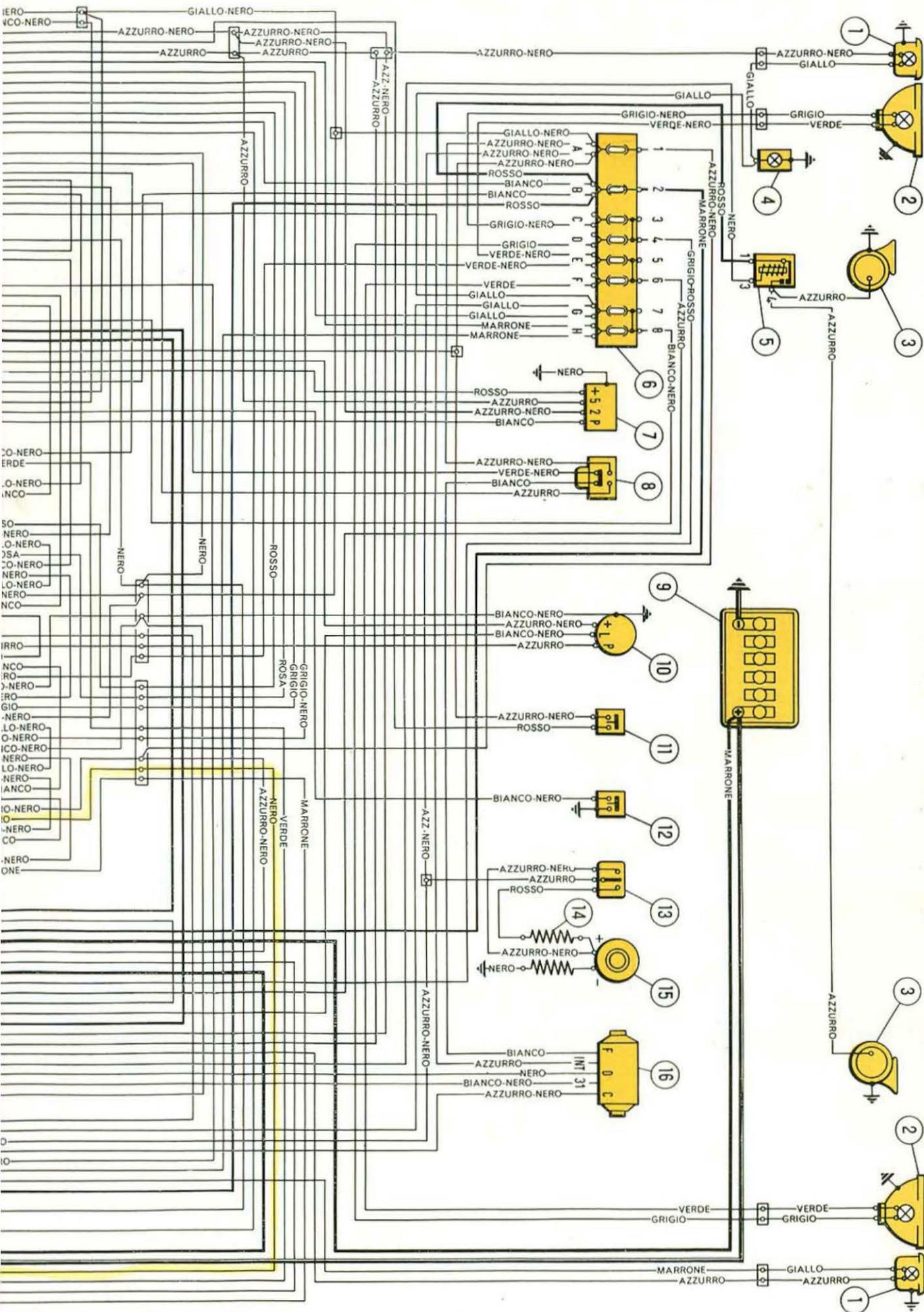
ITEM	QUANTITY			REFILL
	lt	kg	U.S. units	
FUEL TANK	30	—	7.9 Gals.	Premium gasoline
RADIATOR, CYLINDER JACKETS and HEATING SYSTEM	7,5	—	8 Qts.	50-50 mixture of water and FIAT Parafllu 11 ⁽⁰⁰⁾ fluid or equivalent
ENGINE SUMP AND FILTER ⁽⁰⁾	3,25	2,9	3 1/2 Qts.	See lubrication data ⁽¹⁾
TRANSMISSION AND DIFFERENTIAL	2,1	1,9	4 1/2 Pts.	} SAE 90 EP oil
STEERING BOX	0,12	0,11	1/4 Pts.	
HYDRAULIC BRAKE SYSTEM { front rear	0,19 0,17	0,19 0,17	2/5 Pts. 1/3 »	SAE 70 R 3 (Heavy-Duty non-mineral type)
HYDRAULIC SHOCK ABSORBERS, each { front rear	0,17 0,15	0,155 0,135	1/3 Pts. 1/3 »	High quality shock absorber fluid
WINDSHIELD WASHER	Summer, Spring and early Fall: pour 1 ounce of solvent into washer bottle and fill with pure water. Winter and late Fall: pour 2 ounces of solvent and fill with water to 3/4 level.			Pure water plus high quality windshield washer solvent

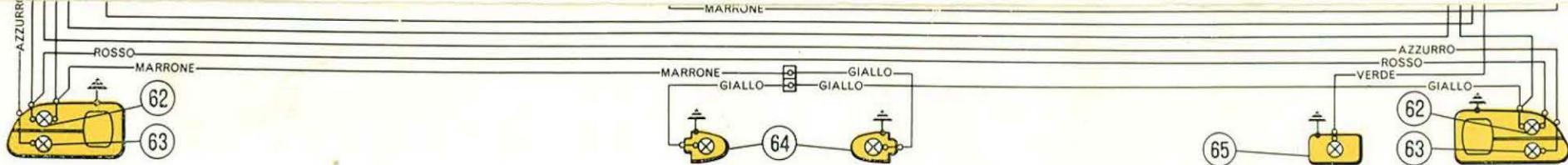
⁽⁰⁾ Total capacity of sump, filter and lines is 3,300 kg (3 3/4 US Qts.) The amount indicated in the table is the requirement for periodical oil changes.

⁽⁰⁰⁾ This mixture has anti-oxidation, anti-corrosion, anti-foam, anti-scale properties and does not freeze down to -35° C (-31° F).

LUBRICATION DATA

	Anticipated lowest temperature	Recommended Service MS (*) (API) oil	If the Multi-Viscosity (*) oils are used, the following grades are recommended	Mark on General Lubrication Chart
(1) ENGINE	Above + 90° F	SAE 40	SAE 20 W - 40	}
	Above + 32° F	SAE 30	SAE 10 W - 30	
	Above + 10° F	SAE 20 W	SAE 10 W - 30	
	Above - 10° F	SAE 10 W	SAE 10 W - 30	
MISCELLANEOUS	Multi-purpose grease			
	Pressure gun chassis grease or multi-purpose grease . . .			
	SAE 90 EP oil			
	DC 33 grease (Dow Corning) for starter freewheel components only			
<p>⁽¹⁾ TYPE OF OIL: Although high quality « Service MM oils » (comparable to former Premium type) are fully satisfactory, when engines are operating under severe service conditions or with constant stop-and-go service, oils designated « For service MS » (comparable to former Heavy-Duty types) should be preferred.</p> <p>^(*) WARNING: Never top up with oils of other grades. When changing to « MS Service » or Multi-Viscosity oils on used engines, the lubrication system must first be thoroughly flushed (See « Safe Motoring Hints »).</p>				





WIRING DIAGRAM

1. Front parking and direction indicators.
2. Headlamps (high and low beams).
3. Horns.
4. Front compartment light.
5. Horn relay switch.
6. Fuses.
7. Flasher, vehicular hazard warning signal.
8. Windshield washer and wiper foot control.
9. Battery.
10. Flasher, direction indicators.
11. Stop lights pressure-operated switch.
12. Switch for indicator 41.
13. Switch, 3-position, heating and ventilation fan.
14. Additional resistor, for electrofan motor.
15. Electrofan motor, 2-speed.
16. Windshield wiper motor.
17. Jam switches, between doors and pillars, for courtesy lights.
18. Courtesy lights under facia.
19. Windshield wiper switch.
20. Courtesy lights toggle switch.
21. Instrument cluster light switch.
22. Outer lighting switch.
23. Heat gauge.
24. Heat gauge light.
25. Fuel gauge.
26. Fuel reserve indicator.
27. Fuel gauge light.
28. Speedometer light.
29. Parking lights indicator (green).
30. Direction indicators tell-tale (green).
31. High beam indicator (blue).
32. Insufficient engine oil pressure indicator (red).
33. Oil pressure gauge light.
34. Oil pressure gauge.
35. Engine tachometer light.
36. Generator charge indicator (red).
37. Engine tachometer.
38. Windshield wiper sweep rate adjustment rheostat.
39. Instrument lights and parking light indicator rheostats.
40. Cigarette lighter (w/housing indicator).
41. Indicator, hydraulic service brake effectiveness and hand brake ON.
42. Pilot light, vehicular hazard warning signal ON.
43. Lock switch.
44. Switch, vehicular hazard warning signal.
45. Outer lighting change-over and headlamp flashes switch.
46. Direction indicators switch.
47. Horn button.
48. Fuel gauge sending unit.
49. Jam switch, back up lamp.
50. Starter.
51. Switch, hand brake ON and indicator 41 operation check.
52. Engine compartment lamps jam switch.
53. Sending unit, oil pressure gauge.
54. Sending unit, insufficient oil pressure indicator.
55. Engine compartment lamps.
56. Ignition distributor.
57. Ignition coil.
58. Spark plugs.
59. Sending unit, heat gauge.
60. Generator.
61. Generator regulator.
62. Rear parking and stop lights.
63. Rear direction indicators.
64. Number plate lights.
65. Back up lamp.

Note. - Mark ■ means that cable is provided with numbered strip or ferrule.

CABLE COLOR CODE

Azzurro = **Blue**
 Bianco = **White**
 Giallo = **Yellow**

Grigio = **Grey**
 Marrone = **Brown**
 Nero = **Black**

Rosa = **Pink**
 Rosso = **Red**
 Verde = **Green**

INT } **Switch**
 COM }
 TERM = **Heat gauge**