REGISTERED TRADE MARK

# ROVER

owner's

# INSTRUCTION MANUAL

**95**

and

**110**

Mark I

PART No. 4443

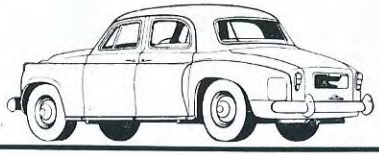
# ROVER

owner's

# INSTRUCTION MANUAL

# 95

and



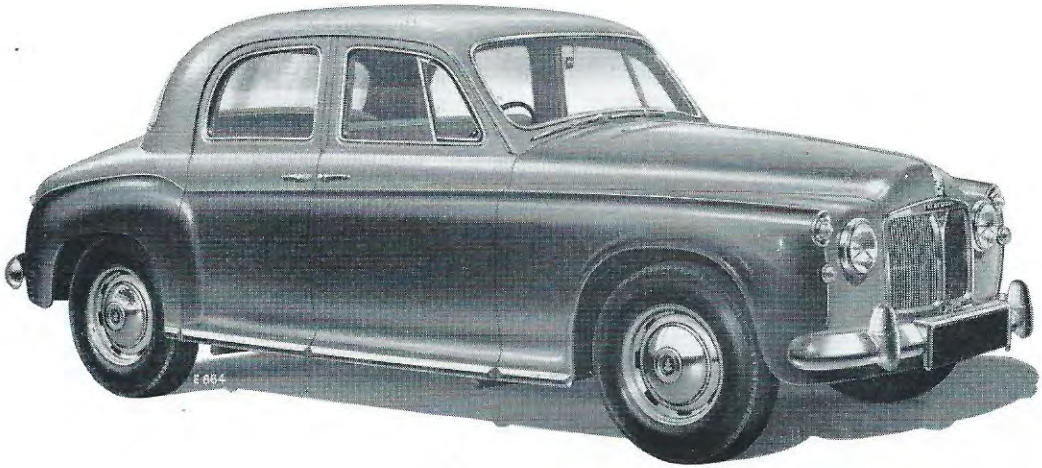
# 110

Mark I models

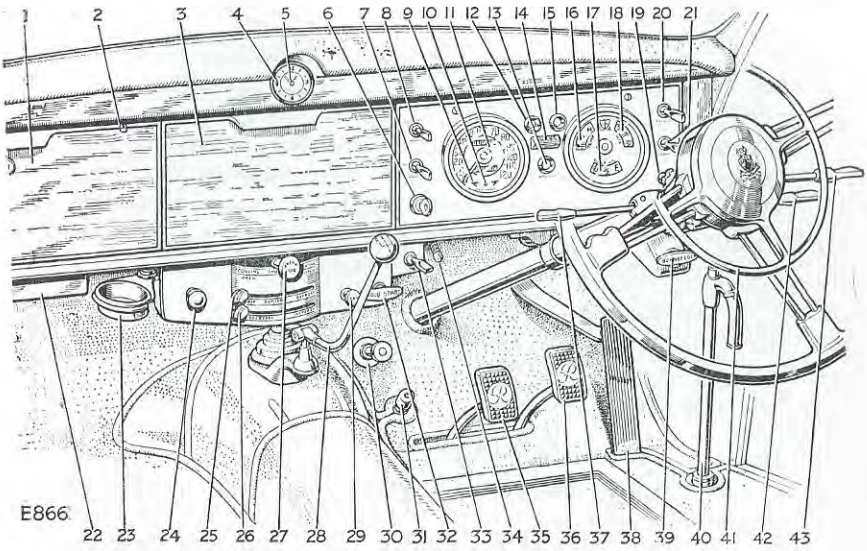

**THE ROVER COMPANY LTD.**

SOLIHULL
WARWICKSHIRE
ENGLAND

Publication No. TP/298A August, 1962 Part No. 4443



Rover 95 and 110 Mark I models




**Layout of controls and instruments**

1 Outer glove box lid*
2 Switch for interior light*
3 Centre glove box lid
4 Clock
5 Clock adjustment knob
6 Ignition and starter switch
7 Fuel reserve switch
8 Main lamp and parking switch
9 Direction indicator arrows
10 Headlamp warning light
11 Speedometer
12 Cold start control warning light
13 Ignition warning light
14 Hand brake and fluid level warning light
15 Oil pressure warning light
16 Water temperature gauge
17 Fuel and oil level gauge
18 Ammeter
19 Windscreen wiper switch—on 110 models also windscreen washer switch
20 Oil level switch
21 Instrument panel light switch
22 Tool tray
23 Ash tray
24 Backlight heater switch (optional equipment)
25 Heater "screen" control
26 Heater "heat" control
27 Fresh air control
28 Gear change lever
29 Car heater fan switch
30 Windscreen washer knob (95 models only)
31 Headlamp dipper switch*
32 Cold-start control
33 Fog lamp switch (optional equipment)
34 Speedometer trip knob
35 Clutch pedal*
36 Brake pedal*
37 Overdrive control switch* (110 models only)
38 Accelerator*
39 Bonnet lock control
40 Hand brake*
41 Horn ring
42 Headlamp switch*
43 Indicator control*

The instrument panel complete and the items marked * are transferred to the opposite side on left-hand drive cars.

# PART THREE
# GENERAL DATA

## Engine—95 models

| | |
|---|---|
| Bore | 3.063 in. (77,8 mm) |
| Stroke | 3.625 in. (92,075 mm) |
| Number of cylinders | 6 |
| Cylinder capacity | 160.3 cu.in. (2,625 c.c.) |
| Compression ratio | 8.8-1 |
| Compression ratio | 7.8-1 certain export territories only |
| Firing order | 1, 5, 3, 6, 2, 4 |
| Sparking plugs | Lodge HBLN 14 mm with suppressors |
| Sparking plug point gap | .029 to .032 in. (0,75 to 0,80 mm) |
| Distributor contact breaker gap | .014 to .016 in. (0,35 to 0,40 mm) |
| Ignition timing (static—full retard) | 6° B.T.D.C. Premium fuels |
| Tappet clearance, inlet | .006 in. (0,15 mm) — Engine at running temperature |
| Tappet clearance, exhaust | .010 in. (0,25 mm) — Engine at running temperature |
| Valve timing (No. 1 exhaust valve peak) | 104° B.T.D.C. |
| Oil pressure | 55 to 65 lb/sq.in. (3,8 to 4,6 kg/cm²) at 30 m.p.h. (50 k.p.h.) in top gear with engine warm |
| Lubrication | Full pressure |
| Oil filter, internal | Gauze pump intake filter in sump |
| Oil filter, external | A.C. Delco full-flow filter |

## Engine—110 models

| | |
|---|---|
| Bore | 3.063 in. (77,8 mm) |
| Stroke | 3.625 in. (92,075 mm) |
| Number of cylinders | 6 |
| Cylinder capacity | 160.3 cu.in. (2,625 c.c.) |
| Compression ratio | 8.8-1 |
| Compression ratio | 7.8-1 |

| | |
|---|---|
| Firing order .... .... | 1, 5, 3, 6, 2, 4 |
| Sparking plugs, 8.8-1 compression ratio .... | Lodge HLN 14 mm with suppressors and waterproof covers |
| Sparking plugs, 7.8-1 compression ratio .... | Lodge HBLN 14 mm with suppressors and waterproof covers |
| Sparking plug point gap | .029 to .032 in. (0,75 to 0,80 mm) |
| Distributor contact breaker gap .... .... | .014 to .016 in. (0,35 to 0,40 mm) |
| Ignition timing, static—full retard .... .... | 6° B.T.D.C.—Premium fuels |
| Tappet clearance—inlet .... | .006 in. (0,15 mm) } At running |
| Tappet clearance—exhaust | .010 in. (0,25 mm) } temperature |
| Valve timing (No. 1 exhaust valve peak) .... .... | 104° B.T.D.C. |
| Oil pressure .... .... | 55 to 65 lb/sq.in. (3,8 to 4,6 kg/cm²) at 30 m.p.h. (50 k.p.h.) in top gear with engine warm |
| Lubrication .... .... | Full pressure |
| Oil filter, internal .... | Gauze pump intake filter in sump |
| Oil filter, external .... | A.C. Delco full-flow |

**Clutch**

| | |
|---|---|
| Type .... .... .... | Single dry plate, 9 in. (230 mm) diameter |
| Adjustment .... .... | ¾ in. (20 mm) free movement at pedal pad |

**Gearbox, 4-speed**

| | |
|---|---|
| Type .... .... .... | Single helical constant mesh with synchromesh on top, third and second speeds. Laycock De-Normanville automatic overdrive 1.286-1 ratio with Rover control fitted as standard equipment on 110 models |
| | 95 models are not available with overdrive |

**Propeller shafts**

| | |
|---|---|
| Type .... .... .... | Open type with flexibly mounted centre bearing and support |

**Rear axle**

| | |
|---|---|
| Type .... .... .... | Spiral bevel with semi-floating shafts |
| Ratio—95 models .... | 3.9-1 |
| 110 models .... | 4.3-1 |

**Gear ratio**

| | Gearbox ratio |
|---|---|
| Overdrive .... .... | .778-1 |
| Top .... .... | 1.0-1 |
| 3rd .... .... | 1.377-1 |
| 2nd .... .... | 2.043-1 |
| 1st .... .... .... | 3.376-1 |
| Reverse .... .... | 2.968-1 |

**Fuel system**

| | |
|---|---|
| Fuel pump .... .... | Dual electric, located in luggage boot |
| Carburetter .... .... | S.U. single horizontal, dustproof |
| Air cleaner—95 models .... | Oil bath type with air silencer |
| 110 models | Paper element type |

**Cooling system**

| | |
|---|---|
| Type .... .... .... | Pump, fan and thermostat, pressurised |

**Electric system**

| | |
|---|---|
| Type .... .... | Positive earth |
| Voltage .... .... | 12 v. } Battery located under |
| Battery capacity .... | 57 AH } rear seat |
| Ignition system .... | Coil |
| Charging circuit .... | Current-voltage regulator |

**Replacement bulbs**

| | | | |
|---|---|---|---|
| Headlamps: | | | |
| R.H.D. | Lucas Sealed Beam | 12 v. | 60/45 w. |
| L.H.D. Except North America and Europe | Lucas No. 415 | 12 v. | 50/40 w. |
| L.H.D. Europe except France | Lucas No. 410 | 12 v. | 45/40 w. Duplo |
| L.H.D. France | Lucas No. 411 | 12 v. | 45/40 w. Duplo (yellow) |
| North America | Sealed unit | | |
| Side lamps | Lucas No. 207 | 12 v. | 6 w. |
| Stop-tail lamps | Lucas No. 380 | 12 v. | 21/6 w. |
| Direction indicator lamps | Lucas No. 382 | 12 v. | 21 w. |
| Rear number plate lamp | Lucas No. 222 | 12 v. | 4 w. |
| Instrument panel light | Lucas No. 987 | 12 v. | 2.2 w. |
| Warning lights | Lucas No. 987 | 12 v. | 2.2 w. |
| Interior light, front | Lucas No. 989 | 12 v. | 6 w. |
| Interior lights, rear | Lucas No. 254 | 12 v. | 6 w. Festoon |
| Clock light | Lucas No. 281 | 12 v. | 2 w. |
| Reverse lamp | Lucas No. 382 | 12 v. | 21 w. |
| Rear luggage boot lamp | Lucas No. 222 | 12 v. | 4 w. |
| Handbrake and fluid level warning light | Lucas No. 281 | 12 v. | 2 w. |

**Suspension**

| | |
|---|---|
| Front | Independent coil with anti-roll torsion bar |
| Rear | Progressive rate semi-elliptic leaf |
| **Hydraulic dampers** | Telescopic, anti-aeration, non-adjustable |
| **Brakes** | Hydraulic servo assisted, disc brakes at front; drum brakes at rear |
| Hand brake | Mechanical linkage to rear wheels |

**Steering**

Type .... .... .... Re-circulating ball, worm and nut, variable ratio

Ratio: straight ahead 17.6: 1
full lock .... 28.0: 1

Front wheel toe-in .... 0-$\frac{1}{8}$ in. (0-3 mm)

**Tyres**

Size .... .... .... 6.00/6.40 x 15"

Pressures

**Rover 95 models. Normal motoring**

| | | | |
|---|---|---|---|
| Front | Normal | .... | 28 lb/sq.in. (1,95 kg/cm²) |
| | Fully laden | .... | 30 lb/sq.in. (2,1 kg/cm²) |
| Rear | Normal | .... | 24 lb/sq.in. (1,7 kg/cm²) |
| | Fully laden | .... | 30 lb/sq.in. (2.1 kg/cm²) |

**High speed motoring**

95 models only: For sustained high speed motoring, that is speeds in excess of 80 m.p.h. (120 k.p.h.) for more than a few minutes, it is essential from the viewpoint of safety and satisfactory tyre life to increase tyre pressures as shown below:

| | | | |
|---|---|---|---|
| Front | Normal load | .... | 34 lb/sq.in. (2,3 kg/cm²) |
| | Fully laden | .... | 36 lb/sq.in. (2,5 kg/cm²) |
| Rear | Normal load | .... | 30 lb/sq.in. (2,1 kg/cm²) |
| | Fully laden | .... | 36 lb/sq.in. (2,5 kg/cm²) |

**Rover 110 models**

| All loads and speeds up to 100 m.p.h. (160 k.p.h.) | | Speeds over 100 m.p.h. (160 k.p.h.) | |
|---|---|---|---|
| Front | Rear | Front | Rear |
| 28 lb/sq.in. 1,9 kg/cm² | 26 lb/sq.in. 1,8 kg/cm² | 32 lb/sq.in. 2,2 kg/cm² | 30 lb/sq.in. 2,1 kg/cm² |

### Capacities

| | |
|---|---|
| Fuel tank .... .... | 11½ Imperial gallons (52 litres) including a reserve of approximately 1 to 1½ gallons (4 to 7 litres) |
| Cooling system .... | 23½ Imperial pints (13½ litres) |
| Engine oil .... .... | 15 Imperial pints (8,5 litres) plus 1 pint (0,5 litre) after replacing filter element. |
| Gearbox oil, with overdrive | 5 Imperial pints (2,75 litres) |
| Rear axle oil .... .... | 3 Imperial pints (1,75 litres) |
| Air cleaner, 95 models .... | 1 Imperial pint (0,5 litre) |
| Turning circle ... .... | 37 ft. (11,25 m) |

### Dimensions

| | |
|---|---|
| Overall length .... | 178¼ in. (4,53 m) |
| Overall width .... .... | 65⅝ in. (1,67 m) |
| Overall height (approx.) .... | 63¾ in. (1,62 m) unladen |
| Wheelbase .... .... | 111 in. (2,82 m) |
| Track, front .... .... | 52½ in. (1,33 m) |
| Track, rear .... .... | 51½ in. (1,31 m) |
| Ground clearance (under rear axle) .... .... | 7⅛ in. (181 mm) |