REGD. TRADE MARK

ROVER

60-75-90

4091

OWNER'S INSTRUCTION MANUAL **NOTICE D'ENTRETIEN**

MANUAL DO PROPRIETÁRIO **MANUAL DEL PROPIETARIO**

REGISTERED TRADE MARK

ROVER

"60", "75" and "90" Saloons

Car Commencing Numbers:

	"60"	"75"	"90"
Home R.H.D.	330600001	340600001	350600001
Export L.H.D.	333600001	343600001	353600001
Export R.H.D.	336600001	346600001	356600001
Export C.K.D. L.H.D.	334600001	344600001	354600001
Export C.K.D. R.H.D.	337600001	347600001	354700001

Nos. de Voitures de Début de Série:	Desde Veículos Nos.:		Desde Vehículos Nos.:
	"60"	"75"	"90"
Marché Intérieur C. à D. .... Com volante a direita, para mercado interno .... Mercado Nacional, volante a la derecha	330600001	340600001	350600001
Exportation C. à G. .... Com volante a esquerda para exportação .... Exportación, volante a la izquierda	333600001	343600001	353600001
Exportation C. à D. .... Com volante a direita, para exportação .... Exportación, volante a la derecha	336600001	346600001	356600001
Véhicule entièrement démonté, Exportation, C. à G. Com volante a esquerda, desmontado, para exportação Exportación, desmontado, volante a la izquierda	334600001	344600001	354600001
Vehicule entièrement démonté, Exportation, C. à D. Com volante a direita, desmontado, para exportação Exportación, desmontado, volante a la derecha	337600001	347600001	354700001

The Rover Co. Ltd.

SOLIHULL, BIRMINGHAM, ENGLAND

Telephone: *Téléphone:*
Telefone: *Teléfono:*
Sheldon 2461 and 2613

Telegrams: *Adr. Télégr.:*
Telegramas:
Rover, Solihull, England

London Service Station:
Estação de Serviço em Londres:

Station-Service à Londres:
Estación de Servicio en Londres:

SEAGRAVE ROAD, FULHAM, LONDON S.W.6, ENGLAND

Telephone: *Téléphone:*
Telefone: *Teléfono:*
Fulham 1221

Telegrams: *Adr. Télégr.:*
Telegramas:
Rovrepair, Wesphone, London

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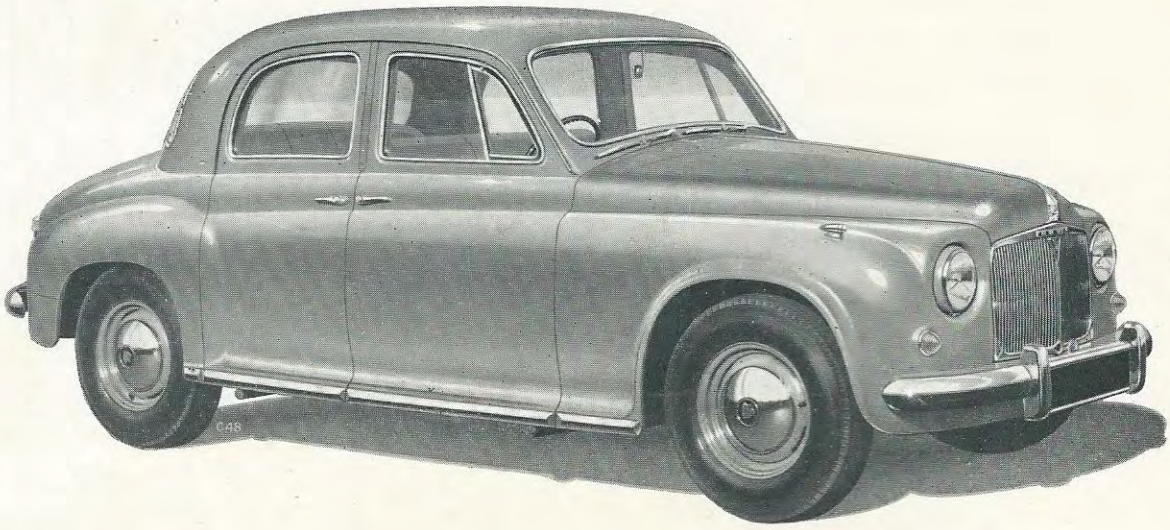

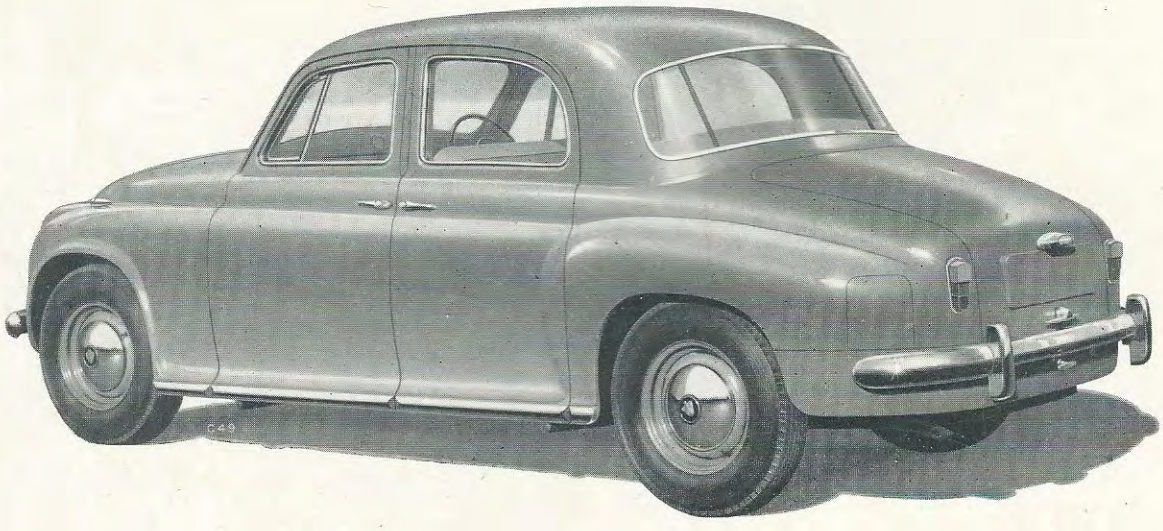

Introduction

Every effort has been made in the design of the Rover "60", "75" and "90" to reduce the amount of attention which the owner must devote to upkeep; this manual provides all the information necessary for periodic maintenance attention. The cars are very similar in design, differences being noted at appropriate points in the text.

For ease of reference, it is divided into three distinct sections:—

Section A describes the driving controls and includes general information to assist in operating the car to the best advantage.

Section B deals with all the maintenance items.

Section C gives details of the facilities offered by our Service Department.

Although the instructions have been made as simple and clear as possible, there may be occasions when the owner finds himself in some difficulty, in which case reference should be made to our Service Department (see Section C).

It is well to read this book carefully on receipt of the car, particular attention being paid to the note on keys on Page E-9 and the running-in instructions on Page E-14.

GUARANTEE

In order to obtain the Certificate of Guarantee for the car, the guarantee form supplied should be filled in and returned by the owner or dealer; failure to return this form may seriously jeopardise any claim on the Company under the terms of the standard guarantee.

CAR AND ENGINE SERIAL NUMBERS

The car serial number, comprising nine digits, will be found on a plate attached to the left-hand front door hinge post, visible when the door is open. It is the same as the chassis number, which is stamped on the top of the left-hand chassis side-member above the front road spring.

Fig. 1.
Car serial number.

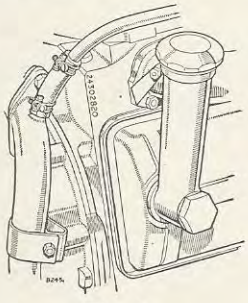

Fig. 2.
Engine serial number.

The full car serial number must be uoted in all correspondence; the registration number of the car is of no use whatever to us.

The engine serial number, **which need not be quoted in correspondence** unless specifically asked for, is stamped on the left-hand side of the cylinder block at the front.

NOMENCLATURE

To cater for both right- and left-hand drive models, reference is made throughout the text to the "left-hand" and "right-hand" sides of the car, rather than to "near-side" and "off-side". The "left-hand" side is that to the left hand when the car is viewed from the rear; similarly "left-hand" drive" models are those having the driving controls on the left-hand side, again when the car is viewed from the rear.

In some instances, the abbreviation "L.H.D." is used to denote left-hand drive and "R.H.D." for right-hand drive.

SPECIFICATION

It will be realised that from time to time alterations in design and in the make of various accessories occur and this instruction manual, while being kept up-to-date as far as possible, is not to be taken as a standard specification. The specification may be altered at any time, without incurring any obligation to incorporate such alteration in cars already delivered.

GENUINE ROVER PARTS

All Rover owners should recognize the importance which attaches to the use of only GENUINE ROVER PARTS or ROVER APPROVED PARTS when repair or maintenance work is being carried out on their cars.

Rover parts are produced to the same high standard as those parts built into the car in its original production, and for this and other reasons it is in their interests that Rover owners should insist that only GENUINE ROVER PARTS or ROVER APPROVED PARTS are fitted to their cars.

THE ROVER CO. LTD.,
SOLIHULL, BIRMINGHAM,
ENGLAND.

GENERAL DATA

"60" ENGINE

Bore	77,8 mm. (3.063 in.)
Stroke	105 mm. (4.134 in.)
Number of cylinders	4
Cylinder capacity	1,997 c.c. (121.8 cu.in.)
Compression ratio	6.9-1
B.H.P.	60 at 4,000 R.P.M.
Maximum torque	101 lb./ft. (13,9 mKg.) at 2,000 R.P.M.
Firing order	1, 3, 4, 2
Sparking plugs	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)	10° B.T.D.C.
Tappet clearance—inlet	.008 in. (0,20 mm.) At running
,, ,, —exhaust	.012 in. (0,30 mm.) temperature
Valve timing (No. 1 exhaust valve peak)	114° B.T.D.C.
Number of crankshaft bearings	3
,, ,, camshaft bearings	4
Vibration damper	Integral with fan driving pulley
Valve gear—inlet	Overhead operated by followers and push rods
,, ,, —exhaust	Side operated by direct rockers
Oil pressure	55 to 65 lb./sq.in. (3,8 to 4,6 kg./cm.²) 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
,, ,, —external	Full-flow filter
Mountings	Three-point rubber

"75" ENGINE

Bore	73,025 mm. (2.875 in.)
Stroke	88,9 mm. (3.5 in.)
Number of cylinders	6
Cylinder capacity	2,230 c.c. (136 cu.in.)
Compression ratio	7.2-1
B.H.P.	80 at 4,500 R.P.M.
Maximum torque	113 lb./ft. (15,62 mKg.) at 1,750 R.P.M.
Firing order	1, 5, 3, 6, 2, 4
Sparking plugs	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)	10° B.T.D.C.
Tappet clearance—inlet	.008 in. (0,20 mm.) At running
,, ,, —exhaust	.012 in. (0,30 mm.) temperature
Valve timing (No. 1 exhaust valve peak)	114° B.T.D.C.
Number of crankshaft bearings	4
,, ,, camshaft bearings	6
Vibration damper	Integral with fan driving pulley
Valve gear—inlet	Overhead operated by followers and push rods
,, ,, —exhaust	Side operated by direct rockers
Oil pressure	55 to 65 lb./sq.in. (3,8 to 4,6 kg./cm.²) 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
,, ,, —external	Full-flow filter
Mountings	Three-point rubber

"90" ENGINE

Bore	73,025 mm. (2.875 in.)
Stroke	105 mm. (4.134 in.)
Number of cylinders	6
Cylinder capacity	2,638 c.c. (161 cu.in.)
Compression ratio	7.5-1
B.H.P.	90 at 4,500 R.P.M.
Maximum torque	138 lb./ft. (19 mKg.) at 1,750 R.P.M.
Firing order	1, 5, 3, 6, 2, 4
Sparking plugs	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)	3° before T.D.C.
Tappet clearance—inlet	.008 in. (0,20 mm.) } At running
" " —exhaust	.012 in. (0,30 mm.) } temperature
Valve timing (No. 1 exhaust valve peak)	114° B.T.D.C.
Number of crankshaft bearings	4
" " camshaft bearings	6
Vibration damper	Integral with fan driving pulley
Valve gear—inlet	Overhead operated by followers and push rods
" " —exhaust	Side operated by direct rockers
Oil pressure	55 to 65 lb./sq.in. (3,8 to 4,6 kg./cm.^{2}) 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
" " —external	Full-flow filter
Mountings	Three-point rubber

CLUTCH

Type	Single dry plate 9 in. (230 mm.) diameter
Adjustment	$\frac{3}{4}$ in. (20 mm.) free movement at pedal pad

GEARBOX

Type	Single helical mesh with synchro-mesh on top, third and second speeds

FREEWHEEL—"60" and "75"

Type	Rover, incorporated in gearbox

OVERDRIVE GEARBOX "90"

Laycock de Normanville 1.286-1 ratio. Optional Extra to basic "90" which has direct drive, no freewheel

PROPELLER SHAFT

Type	Open type with centre bearing

REAR AXLE

Type	Spiral bevel with semi-floating shafts
Ratio	4.3-1

GEAR RATIOS

Gear	*Gearbox ratio*	*Overall ratio except "90" with Overdrive 4.3 axle*	*Overall ratio "90" with Overdrive 4.3 axle*	
Top	Direct	4.30-1	Overdrive	3.34-1
3rd	1.377-1	5.923-1	Top	4.30-1
2nd	2.043-1	8.785-1	3rd	5.923-1
1st	3.373-1	14.506-1	2nd	8.785-1
Reverse	2.968-1	12.765-1	1st	14.506-1
			Reverse	12.765-1

FUEL SYSTEM

Petrol pump	Electric
Carburetter	Single horizontal dust-proof
Fast idling position	Incorporated in mixture control

COOLING SYSTEM

Type	Pump, fan and thermostat; pressurised

NOTE—"60": 3-blade fan. "75" and "90": 4-blade fan.

ELECTRICAL SYSTEM

Type	Positive earth
Voltage	12
Battery capacity	51 A.H.
Ignition system	Coil
Charging circuit	Compensated voltage control

SUSPENSION

Road springs—front....	Independent coil
"60" Road springs—rear	Constant rate semi-elliptic leaf
"75" and "90" Road springs—rear	Progressive rate semi-elliptic leaf
Anti-roll bar	At front
Hydraulic dampers	Telescopic anti-aeration non-adjustable

BRAKES

"60" and "75"	
Foot brake—front	Hydraulic; two leading shoes
,, ,, —rear	Hydraulic
Hand brake	Mechanical linkage on rear wheels
"90"	
Foot brake—front	Hydraulic, hydro static, Servo assisted—two trailing shoes
,, ,, —rear	Hydraulic
Hand brake	Mechanical linkage on rear wheels

STEERING

Type	Re-circulating ball worm and nut; variable ratio

TYRES

Size	6.00-15
Pressure	See Page E-29

CAPACITIES

Fuel tank	11½ Imperial gallons (52 litres) (including reserve of 1½ galls. (7 litres))
Cooling system—"60"	17 Imperial pints (9,5 litres)
,, ,, —"75" and "90"	21 Imperial pints (12 litres)
Engine oil—"60"	10 Imperial pints (5,5 litres)*
,, ,, —"75" and "90"	15 Imperial pints (8,5 litres)*
Gearbox oil—"60" and "75"	3½ Imperial pints (2 litres)
,, ,, "90" with overdrive	5½ Imperial pints (3 litres)
,, ,, "90" less freewheel	3½ Imperial pints (2 litres)
Rear axle oil	3 Imperial pints (1,75 litres)

*—1 pint (0,5 litre) extra when refilling after fitting new filter.

NOTE—To obtain the U.S. equivalent, multiply the Imperial capacity by 1.2.

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	52 in. (1,32 m.)
,, —rear	51½ in. (1,31 m.)
Turning circle	37 ft. (11,25 m.)
Ground clearance (under rear axle (approx.))	7¼ in. (181 mm.) unladen
Front wheel toe-in	0 to ⅛ in. (3 mm.)

	"60"	"75"	"90" basic	"90" with Overdrive
Weight, dry	3,002 lbs. (1.363 kg.)	3,149 lbs. (1.427 kg.)	3,207 lbs. (1.455 kg.)	3,227 lbs. (1.465 kg.)
,, with water, oil and 5 gallons of petrol	3,061 lbs. (1.387 kg.)	3,213 lbs. (1.458 kg.)	3,291 lbs. (1.494 kg.)	3,311 lbs. (1.503 kg.)

Section A

DESCRIPTION AND DRIVING INSTRUCTIONS

CONTROLS AND INSTRUMENTS

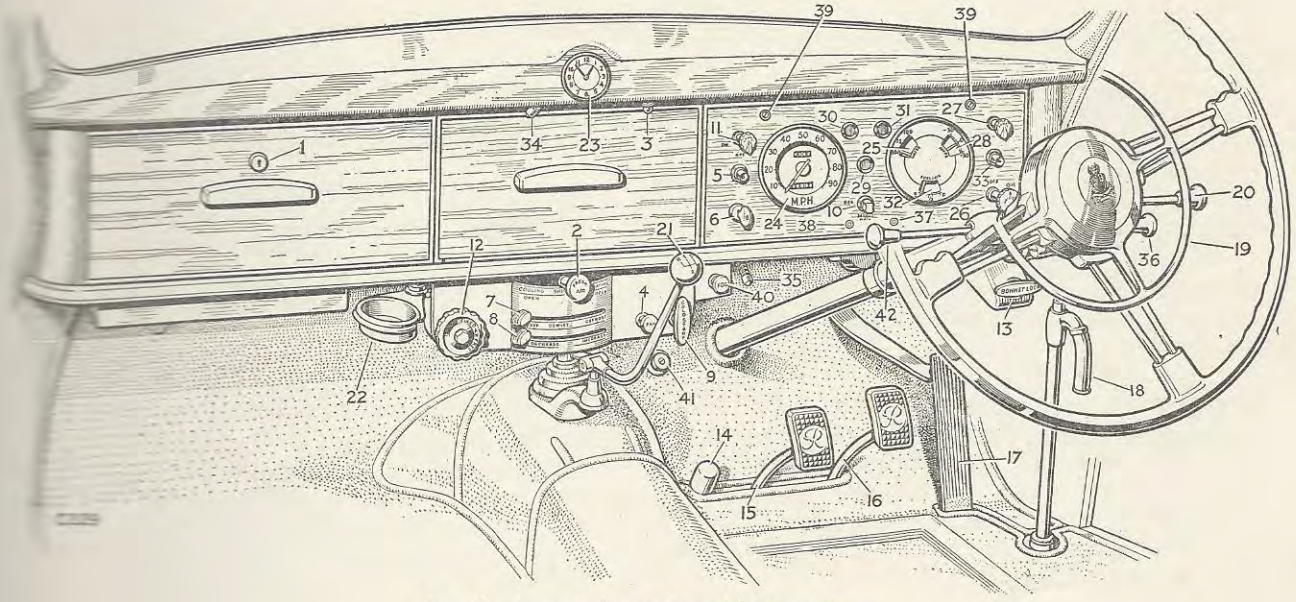

Fig. 3. Layout of controls and instruments.

1. Lock for facia locker.
2. Fresh air control.
3. Switch for interior light.
4. Car heater fan switch.
5. Starter button.
6. Ignition switch.
7. Heater "screen" control.
8. Heater "heat" control.
9. Mixture control.
10. Petrol reserve switch.
11. Main lamp switch.
12. Footwell control.
13. Bonnet lock control.
14. Headlamp dipper switch.*
15. Clutch pedal.*
16. Brake pedal.*
17. Accelerator.*
18. Hand-brake.*
19. Horn ring.
20. Indicator control.*
21. Gear change lever.
22. Ash tray.
23. Clock.
24. Speedometer.
25. Water temperature gauge.
26. Windscreen wiper switch.
27. Instrument panel light switch.
28. Ammeter.
29. Ignition warning light.
30. Mixture control warning light.
31. Oil pressure warning light.
32. Petrol level gauge.
33. Oil level button.
34. Clock adjustment knob.
35. Speedometer trip knob.
36. Headlamp switch.*
37. Headlamp warning light.
38. Direction indicator warning light.
39. Instrument panel securing screws.
40. Fog lamp switch ("90" Home models).
41. Windscreen spray.*
42. Overdrive control switch*

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

The controls and instruments are illustrated at Fig. 3; their use in most instances will be obvious upon examination, but the following notes will be of assistance, should difficulty be experienced.

FOOT PEDALS

Normal in position and operation.

IGNITION SWITCH AND KEY

Fitted at the bottom left-hand corner of the panel; turn the key clockwise for "on". The key is detachable and also serves for the driver's door lock.

When the ignition is "off", only the following electrical equipment can be used:—

Clock, map light, interior lights, horns and driving lights (head, side and tail lamps).

IGNITION WARNING LIGHT

The large red warning light at the centre of the panel appears when the dynamo fails to charge or the dynamo charging rate is low. It will glow when the ignition is switched on and the engine is stationary or running slowly and will go out when the engine speed rises.

STARTER SWITCH

Located above the ignition switch. To operate, press the button and release as soon as the engine fires.

MIXTURE CONTROL

Marked "COLD START" and mounted on the centre control panel to the right of the heater controls. See Page E-13 for operation.