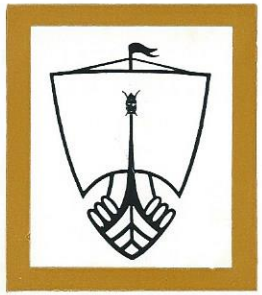
Rover 2000
Owner's Maintenance Manual

2000



ROVER 2000, TYPE Automatic

SUPPLIED BY

C. V. MURRAY PTY. LIMITED
AUTHORISED JAGUAR DEALERS
225 PARRAMATTA ROAD,
P.O. BOX 148, GRANVILLE. 637-0497

Telephone No. .....

Chassis No. 406012099-T

Engine No. 4051400 T

Date of purchase 12.12.69

OWNER'S NAME .....

Address .....

.....

.....

Telephone No. .....

Rover 2000

Owner's Maintenance Manual incorporating Free Service and Maintenance Schedules

ROVER 2000 SC, ROVER 2000 TC, ROVER 2000 AUTOMATIC

The Company reserves the right to alter specifications and design features without notice

Part No. 605944

H627

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By Appointment to Her Majesty Queen Elizabeth II

Manufacturers of Motor Cars and Land-Rovers

By Appointment to Her Majesty Queen Elizabeth the Queen Mother

Suppliers of Motor Cars and Land-Rovers

THE ROVER COMPANY LIMITED

SOLIHULL
WARWICKSHIRE
ENGLAND

BRITISH LEYLAND ROVER

PART THREE

GENERAL DATA

Engine, SC and Automatic models

Bore	3.375 in. (8,57 cm)
Stroke	3.375 in. (8,57 cm)
Number of cylinders	Four
Cylinder capacity	120.8 cu in. (1,978 cc)
Compression ratio: Standard	9.0:1
Certain export territories	7.5:1

	9.0:1 compression ratio	7.5:1 compression ratio
BHP	99 at 5,000 rpm	87,5 at 5,000 rpm
Maximum torque	121 lb ft (16,6 mkg) at 3,600 rpm	113 lb ft (15 mkg) at 3,350 rpm

Firing order	1, 3, 4, 2
Sparking plugs: 9.0:1 compression ratio	Champion N9Y } 14 mm with suppressors
7.5:1 compression ratio	Champion N5 } and waterproof covers
Sparking plug point gap	.025 in. (0,70 mm)
Distributor contact breaker gap	.014 to .016 in. (0,35 to 0,40 mm)
Ignition timing, static—full retard:	
9.0:1 compression ratio 95–97 octane fuel	4° BTDC *
7.5:1 compression ratio 84–87 octane fuel	6° BTDC
Valve timing (No. 1 exhaust valve peak)	108° BTDC

*Where 93 octane fuel is used, set ignition timing to 2° BTDC

Engine, TC models

Bore	3.375 in. (8,57 cm)
Stroke	3.375 in. (8,57 cm)
Number of cylinders	Four
Cylinder capacity	120.8 cu in. (1,978 cc)
Compression ratio:	
United Kingdom and North American Dollar Area	10.0:1
Other territories	9.0:1

	10.0:1 compression ratio	9.0:1 compression ratio
BHP	124 at 5,500 rpm	117 at 5,500 rpm
Maximum torque	132 lb ft (18,2 mkg) at 4,000 rpm	125 lb ft (17,2 mkg) at 3,750 rpm

Firing order	1, 3, 4, 2
Sparking plugs: All models	Champion N7Y (14 mm with suppressed cables and waterproof covers)
Sparking plug point gap	.025 in. (0,70 mm)
Distributor contact breaker gap	.014 to .016 in. (0,35 to 0,40 mm)
Ignition timing, static—full retard:	
10.0:1 compression ratio, 100 octane fuel	6° BTDC
9.0:1 compression ratio, 95 octane fuel	6° BTDC
Valve timing (No. 1 exhaust valve peak)	104° BTDC

Engine, all models

Tappet clearance—inlet	.008 in. (0,20 mm)
Tappet clearance—exhaust	.013 in. (0,30 mm)
Oil pressure	50 to 60 lb/sq in. (3,5 to 4,2 kg/cm²) at 30 mph (50 kph) in top gear with engine warm
Lubrication	Full pressure
Oil filter—internal	Gauze pump intake filter in sump
Oil filter—external	Full-flow, AC No. 7965022, type SC

Clutch, 4-speed gearbox

Type	Diaphragm spring single dry plate, 8½ in. diameter. Hydraulic operation
Fluid	Castrol Girling Brake and Clutch Fluid Crimson, Specification SAE J.1703

Gearbox, 4-speed .. Single helical constant mesh with synchromesh on top, third, second and first speeds

Gearbox, automatic transmission .. The automatic transmission consists of two main components:

1 A three-element hydrokinetic torque converter coupling capable of torque multiplication at an infinitely variable rate between 2:1 and 1:1.

2 A torque-speed responsive and hydraulically operated gearbox comprising a planetary gear set providing three forward ratios and reverse.

	4-speed		Automatic transmission	
Gear ratios	Top	1.0:1	High (top) *	1.0:1
	3rd	1.391:1	Intermediate (second)	1.45:1
	2nd	2.133:1	Low (first)	2.39:1
	1st	3.625:1	Reverse	2.09:1
	Reverse	3.43:1		
Overall ratios	Top	3.54:1		
	3rd	4.924:1		
	2nd	7.55:1		
	1st	12.832:1		
	Reverse	12.14:1		

Final drive unit, all models

Type	Hypoid crown wheel and bevel pinion
Ratio	3.54:1

Propeller shafts, all models

Type	Open, Hardy Spicer type 1310, pre-packed joints

Fuel system, SC and Automatic models

Fuel pump	AC mechanical
Carburetter	Single SU type HS6
Carburetter needle	RN
Air cleaner	AC paper element type

Fuel system, TC models

Fuel pump	AC mechanical
Carburetter	Twin SU type HD8
Carburetter needle	UI
Air cleaner	Twin paper element type

Cooling system, all models

Type	Pump, fan and thermostat, pressurised to 7 lb/sq in. (0,5 kg/cm²)
Fan belt adjustment	$\frac{5}{16}$ to $\frac{7}{16}$ in. (8 to 11 mm) free movement

Electrical system, all models

Type	Negative earth
Voltage	12V
Battery capacity	60 ampere hours at 20-hour rate (Battery located under bonnet)
Ignition system	Coil, Lucas, HA 12
Charging circuit	Current-voltage regulator
Dynamo output	30 amps

Hydraulic dampers, all models .. .. .. Telescopic, anti-aeration, non-adjustable

Brakes, Girling type

Foot brake	Front: outboard disc brakes with twin pistons Rear: inboard disc brakes, single-side swinging caliper with single piston	Hydraulic, servo-assisted. Self-adjusting
Hand brake	Integral with rear foot brake. Mechanical linkage, self-adjusting mechanism	
Fluid	Castrol Girling Brake and Clutch Fluid, Crimson, Specification SAE J.1703	

Steering, all models

Type	Adamant hour-glass worm and roller followers	
Ratio	20.3:1, $3\frac{3}{4}$ turns lock to lock	
Front wheel alignment	$\frac{1}{16}$ in. (1,5 mm) toe-in plus or minus $\frac{1}{16}$ in. (1,5 mm)	
Camber angle	0° ±1°	Check with car in static unladen position. That is, car with water, oil and 5 gallons of fuel. Rock the car up and down at the front to allow it to take up a static position
Castor angle	$\frac{1}{4}$° positive ±$\frac{1}{2}$°	
Swivel pin inclination	8°	

Note: The camber of the front wheels on this car is 0°, with a tolerance of plus or minus 1°. That is, the bottom of the wheels can splay out slightly.

Tyres, SC and Automatic models

Size .. .. Pirelli Cinturato 165 x 14 tubeless or Dunlop SP41 165 SR 14 tubeless

Pressures: Check with tyres cold

All speeds—	Normal loads		Fully laden	
	Front	Rear	Front	Rear
lb/sq in.	26	28	26	32
kg/cm²	1,8	1,9	1,8	2,2

When high-speed touring, the tyre pressures should be checked much more frequently even to the extent of a daily check.

Tyres, TC models

Size, pressed steel wheels .. .. Pirelli Cinturato 165 x 14 tubeless or Dunlop SP41 165 SR 14 tubeless

Wire wheels .. .. Pirelli Cinturato 165 x 14, with inner tube or Dunlop SP41 165 SR 14 with inner tube

Pressures: Check with tyres cold

Up to speeds of 105 mph (165 kph)	Normal loads		Fully laden	
	Front	Rear	Front	Rear
lb/sq in.	26	28	26	32
kg/cm²	1,8	1,9	1,8	2,2
When driving consistently at speeds of over 105 mph (165 kph)	Normal loads		Fully laden	
	Front	Rear	Front	Rear
lb/sq in	30	32	30	36
kg/cm²	2,1	2,2	2,1	2,5

When high-speed touring, the tyre pressures should be checked much more frequently even to the extent of a daily check.

Replacement headlamp units and bulbs, all models

	Inner headlamp		Outer headlamp	
	Sealed beam unit	Bulb	Sealed beam unit	Bulb
Right-hand steering	Lucas 54522973 12V 50W	—	Lucas 54521806 12V 37½/50W	—
Left-hand steering, except France, Austria, Italy and North America	Lucas 54521805 12V 37½W	—	—	Lucas 410 12V 40/45W
France	Lucas 54520931 or Lucas 411 12V 37½W	12V 40/45W	—	Lucas 411 12V 40/45W
Austria	Lucas 54521615 12V 37½W	—	—	Lucas 410 12V 40/45W
Italy	—	Lucas 410 12V 40/45W	—	Lucas 410 12V 40/45W
North America	Special 12V	—	Special 12V	—

Side lamps	Lucas No. 989	12V 6W
Stop/tail lamps	Lucas No. 380	12V 21/6W
Direction indicator lamps	Lucas No. 382	12V 21W
Rear number plate lamp	Lucas No. 989	12V 6W
Instrument panel light and tachometer	Lucas No. 987	12V 2.2W

Warning lights, direction indicator and main beam	Lucas No. 643 12V 2.2W
Warning lights, oil, brake and ignition	Lucas No. 984 12V 3.6W
Interior light, festoon bulb	Lucas No. 272 12V 10W
Clock	Lucas No. 281 12V 2W
Reverse lamps	Lucas No. 382 12V 21W
Rear luggage boot lamp	Lucas No. 209 12V 6W
Selector illumination, automatic transmission, festoon bulb	Lucas No. 256 12V 3W

Suspension

Front	Coil springs, leading top links, transverse bottom links
Rear	de Dion sliding tube, coil springs, with a rear rod for transverse stability

Dimensions and weights

Overall length	14 ft 10½ in. (4,53 m)
Overall width	5 ft 6 in. (1,68 m)
Overall height	4 ft 6¾ in. (1,39 m)
Wheelbase	8 ft 7⅜ in. (2,63 m)
Track, front	4 ft 5⅜ in. (1,35 m)
Track, rear	4 ft 4½ in. (1,33 m)
Ground clearance (under final drive unit)	8½ in. (21,6 cm)
Turning circle	31½ ft (9,6 m), lock to lock, 3¾ turns of steering wheel
Weight, with water, oil and 5 gallons (22½ litres) of fuel, SC models	2,750 lb (1.247 kg)
Weight, with water, oil and 5 gallons (22½ litres) of fuel, TC models	2,810 lb (1.275 kg)
Weight, with water, oil and 5 gallons (22½ litres) of fuel, Automatic transmission models	2,775 lb (1.258 kg)
Roof rack load, maximum approved	112 lb (50 kg)
Towing weight, maximum approved	2,800 lb. (1.250 kg)

Capacities

Component	Imperial unit	US unit	Litres
Engine sump oil, all models, except when oil cooler is fitted ..	8 pints	9.5 pints	4,5
Engine sump oil, TC models when oil cooler is fitted ..	9 pints	10.5 pints	5,0
Extra when refilling after fitting new filter	1 pint	1.2 pints	0,5
Gearbox oil, 4-speed	1¾ pints	2 pints	1,0
Gearbox oil, automatic transmission and oil cooler	12 pints	14½ pints	7,0
Final drive unit oil	2½ pints	3 pints	1,4
Fuel tank	12 gallons	14 gallons	55,0
Including a reserve of	2.7 gallons	3.2 gallons	12,0
Cooling system	14 pints	17 pints	8,0

Anti-freeze solutions (see chart on opposite page)

Cooling system capacity		Anti-freeze required for 33⅓% solution		Anti-freeze required for 50% solution		Anti-freeze required to raise 33⅓% solution to 50%	
Pints	Litres	Pints	Litres	Pints	Litres	Pints	Litres
14	8	5	2.8	7	4	3½	2

Recommended lubricants

These recommendations apply to temperate climates where operational temperatures are above 14°F (—10°C)

Lubricants marked with an asterisk (*) are multigrade oils suitable for all temperature ranges.

Information on recommended lubricants for use under extreme winter or tropical conditions can be obtained from The Rover Co. Ltd, Technical Service Department, or your local Distributor or Dealer.

Multigrade oils, produced by the makers of the lubricants listed below, are also approved for the range of SAE grades that they cover.

COMPONENTS	SAE	BP	CASTROL	DUCKHAM'S	ESSO	MOBIL	REGENT TEXACO/ CALTEX	SHELL
Engine, gearbox and de Dion tube	20W	*BP Super Visco-Static 10W-40	*Castrol GTX	Duckham's Q20-50 Motor Oil	Uniflo or Esso Motor Oil 20W/30	Mobiloil Super or Mobiloil Arctic	Havoline 20/20W	*Shell Super Oil 100
Automatic transmission	—	BP Autran 'B'	Castrol TQF	Duckham's Nolmatic	Essoglide	Mobil ATF 210	Texamatic 6991	Shell Donax T7
Steering box and final drive unit	90EP	BP Gear Oil SAE 90 EP	Castrol Hypoy	Duckham's Hypoid 90	Esso Gear Oil GP 90/140	Mobilube GX 90	Multigear Lubricant 90	Spirax 90 EP
Propeller shaft sliding spline, front and rear hubs		BP Energrease L2	Castrol LM Grease	Duckham's LB10 Grease	Esso Multi-purpose Grease H	Mobilgrease MP or Mobilgrease Special	Marfak Multi-purpose	Retinax A or Darina AX
Anti-freeze solutions		BP Anti-Frost	Castrol Anti-Freeze	'Standard' Anti-Freeze	Esso Anti-Freeze	Mobil Permazone	PT Anti-Freeze	Shell Anti-Freeze
		Bluecol or Prestone or any anti-freeze solution conforming to British Standards BS 3151 or 3152						
Brakes and clutch	Castrol Girling Brake and Clutch Fluid, Crimson, Specification SAE J.1703							