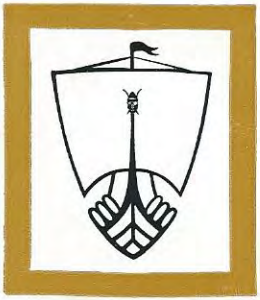
Rover
Three Thousand Five
Owner's
Maintenance Manual



ROVER THREE THOUSAND FIVE

SUPPLIED BY .....

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Telephone No. .....

Chassis No. .....

Engine No. .....

Date of purchase .....

OWNER'S NAME.....

Address .....

.....

.....

Telephone No. .....

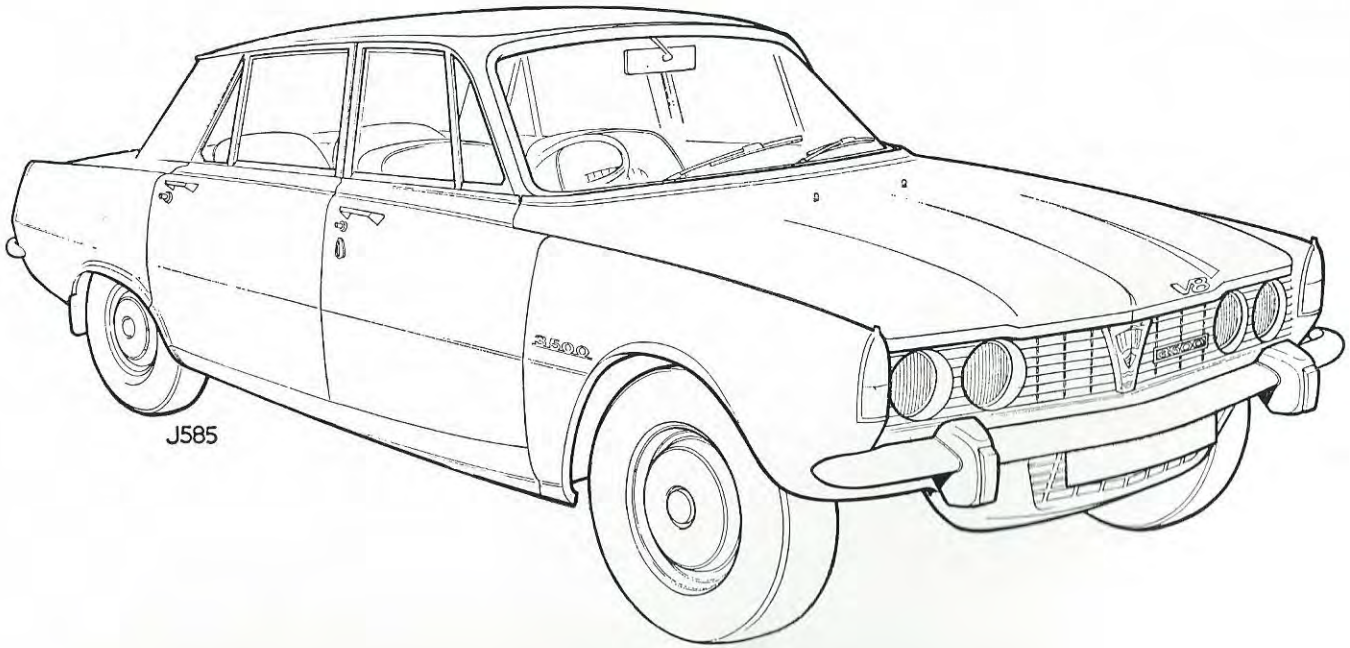
Rover Three Thousand Five

Owner's Maintenance Manual incorporating Free Service and Maintenance Schedules

BRITISH LEYLAND ROVER

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

Part No. 605879



Rover Three Thousand Five

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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

PART THREE

GENERAL DATA

Engine

Type	V8
Bore	3.500 in. (88,90 mm)
Stroke	2.800 in. (71,12 mm)
Number of cylinders	Eight
Cylinder capacity	215 cu in. (3,528 cc)
Compression ratio	10.5:1
BHP	184 at 5,200 rpm
Maximum torque	226 lb ft (31 mkg) at 3,000 rpm
Firing order	1, 8, 4, 3, 6, 5, 7, 2
Sparking plugs	Champion L87Y. 14 mm with suppressed leads
Sparking plug point gap	.025 in. (0,60 mm)
Distributor contact breaker gap	Dwell angle 26° – 28°. See also Distributor contact points—page 15
Ignition timing, dynamic setting at 500–600 rpm	6° BTDC mark on crankshaft pulley (Minimum 100 Research Octane fuel)
Oil pressure	30 to 40 lb/sq in. (3,8 to 4,6 kg/cm²) at 50 mph (80 kph) in top gear with engine warm (2,400 rpm)
Lubrication	Full pressure
Oil filter—internal	Gauze pump intake filter in sump
Oil filter—external	Full-flow

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 2.1:1 and 1:1.

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

Gear ratios

High (top)	1.0:1
Intermediate (2nd)	1.45:1
Low (1st)	2.39:1
Reverse	2.09:1

Final drive unit

Type	Hypoid crown wheel and bevel pinion
Ratio	3.08:1

Propeller shafts

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

Fuel system

Fuel pump	AC mechanical, mounted on front left-hand side of engine
Carburetter	Twin SU type HS6
Needle size	KO. SU AUD 1539
Air cleaner	Twin paper element type

Cooling system

Type	Pump, fan and thermostat, pressurised to 15 lb/sq in.
Fan belt adjustment	$\frac{7}{16}$ to $\frac{9}{16}$ in. (11 to 14 mm) free movement

Electrical system

Type	Negative earth
Voltage	12 volt
Battery capacity	60 ampere hours at 20-hour rate. (Battery located in boot at right-hand side)
Ignition system	Coil, Lucas, HA 12
Charging circuit	Alternator with current-voltage regulator

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

Brakes

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

Handbrake	Integral with rear foot brake. Mechanical linkage, self-adjusting mechanism
Fluid	Castrol Girling Brake and Clutch Fluid Crimson, Specification SAE J 1703

Steering

Type	Burman F3 recirculating ball
Ratio	Variable. 21.5:1 straight ahead: 26.0:1 on full lock. 4¼ turns lock to lock
Front wheel alignment	⅛ in. (3,0 mm) toe-in plus or minus $\frac{1}{16}$ in. (1,5 mm)
Camber angle	0° ± 1°
Castor angle	1½° positive ± ½°
Swivel pin inclination	8°

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

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

Size	Avon 185 x HR 14. Pirelli 185HR x 14
Winter tyres	Pirelli Cinturato DP34 175R x 14 winter tread
Maximum speeds with winter tyres: Unstudded	95 mph (150 kph)
Studded	75 mph (120 kph)

Pressures: Check with tyres cold

	All speeds and normal loads		All speeds fully laden	
	Front	Rear	Front	Rear
lb/sq in.	28	30	30	34
kg/cm²	1,9	2,1	2,1	2,4

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

	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	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

Overall length	14 ft 11¾ in. (4,56 m)
Overall width	5 ft 6 in. (1,68 m)
Overall height	4 ft 8¼ in. (1,42 m)
Wheelbase	8 ft 7⅜ in. (2,63 m)
Track, front	4 ft 5⅜ in. (1,35 m)
Track, rear	4 ft 3¾ in. (1,31 m)
Ground clearance (under final drive unit)	8½ in. (21,6 cm)
Turning circle	31½ ft (9,6 m), lock to lock, 4½ turns of steering wheel

Weight

Weight, with water, oil and 5 gallons (22½ litres) of fuel	2,862 lb (1,298 kg)
Maximum towing weight, car fully laden, and using Rover approved towing attchment	25 cwt (1,250 kg) according to gradient. For details see Owner's Instruction Manual
Maximum roof rack load	112 lb (50 kg)

Capacities

Component	Imperial unit	US unit	Litres
Engine sump oil	8 pints	9.5 pints	4,5
Extra when refilling after fitting new filter	1¼ pints	1.5 pints	0,7
Automatic transmission oil	14 pints	17 pints	8,0
Final drive unit oil	2¼ pints	2½ pints	1,3
Fuel tank	15 gallons	18 gallons	68,0
Including a reserve of	1¼ gallons	1½ gallons	6,0
Cooling system	15¼ pints	18½ pints	8,5

Anti-freeze solutions (conforming to British Standard BS 3150). See overleaf

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
15¼	8,5	5	2,8	7½	4,2	3¾	2,1

Recommended lubricants

These recommendations apply to 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 conditions can be obtained from The Rover Co. Ltd, Technical Service Department or your local Distributor or Dealer.

COMPONENTS	SAE	BP	CASTROL	DUCKHAM'S	ESSO	MOBIL	REGENT TEXACO/ CALTEX	SHELL
Engine 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 Q-Matic	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

FUEL AND FLUIDS	
Fuel	100 Research Octane fuel - 5 Star rating in the United Kingdom
Brakes	Castrol Girling Brake and Clutch Fluid, Crimson, Specification SAE J 1703
Anti-freeze solution for cooling system	Bluecol AA, coloured green, or any other anti-freeze solution conforming to British Standard No. 3150. For summer or winter use
Inhibitor solution for cooling system	Marston Lubricants SQ36—Coolant inhibitor concentrate. For summer use only if for any reason frost precautions are not required