The LAND-CROVER THE where "VEHICLE an







FOR THE COUNTRYMAN THE FARMER AND GENERAL INDUSTRIAL PURPOSES

THE ROVER COMPANY LIMITED SOLIHULL · BIRMINGHAM · ENGLAND

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The name Land-Rover is a registered Trade mark of The Rover Company Limited.



BY APPOINTMENT TO THE LATE KING GEORGE VI MANUFACTURERS OF LAND-ROVERS THE ROVER COMPANY

The Land-Rover with Hood and Hood supports removed.



LAND--ROVER

 T_{HE} World's most versatile vehicle, designed to fill the many needs arising every day which call for the use of a vehicle capable of doing those extraordinary jobs that no ordinary vehicle could. On the farm, the estate, in industry, municipal undertakings, and in numerous other directions where an out-of-the-ordinary job requires an out-of-the-ordinary vehicle. The Land-Rover is exceptionally sturdy, it gives a round-the-clock service and is never tired. For road travel it is comfortable and economical, but it also possesses the ability to keep going under the worst ground conditions. It has two gear ranges—high and low. Each range has four forward speeds and one reverse. In the high range the drive is through the rear axle and designed for road work, but if required, it can immediately be transformed into a four-wheel drive vehicle by pressing a small knob. In the low range, four-wheel drive is constant, and the Land-Rover then becomes a go-anywhere vehicle.

Over ploughed fields, and ditches, through shallow streams, on mountain paths, up steep inclines, through mud, sand, or long grass, the Land-Rover takes them all in its stride, and tows a trailer load much in excess of its own weight. In addition, the Land-Rover is a mobile power plant, taking power to the job wherever it is needed. Through the rear power take-off, it can be harnessed to drive the farmer's threshing machine, or the elevator for rick building, drive the roots and chaff cutter, circular saw or combine harvester. It will tow and drive the power mower and other farming implements requiring either belt or positive shaft drive. The centre power take-off is designed to drive through vee belts, the air compressor, electric generator, portable milking appliances and other items of plant that can be carried in the body of the vehicle.

The Land-Rover primarily designed for use in agriculture, is equally serviceable in industry. It is powerful far beyond its H.P. rating, due to the special design of engine cylinder head, and with the four-wheel drive gives a high degree of traction. It can be fitted with a power-driven front or rear winch for moving heavy machinery about the factory and due to its short wheel-base is easily manœuvrable in confined spaces. It can be used for speedy and economical delivery of goods. In Shipbuilding and Engineering, Road Construction and Quarrying it is of inestimable value for transporting men and materials just where they are wanted.

For municipal services the Land-Rover has special appeal. For Fire-fighting it is used as a speedy tender for men and equipment. It is first on the job and can be driven nearer to the seat of the fire than the larger fire engine, particularly in rural areas and over bad country. For excavation work it both transports and provides the power to drive the compressor for pneumatic drills. It can be supplied as a mobile welding plant. For work on such undertakings as cable carrying pylons across country it can be speedily driven to locations inaccessible to other vehicles. It is designed to do just those jobs that no ordinary wheeled vehicle could do, and can be relied upon to efficiently maintain its reputation as The World's Most Versatile Vehicle.







The Land-Rover operates Farm Machinery and tows it to the spot.



The Land-Rover tows and drives the power driven mower.



The Land-Rover mobile welder takes the power to the job.



The Land-Rover provides power for the Silo lift.

Driving a circular saw. One of the many uses for the Land-Rover rear power take-off.



FMM

The Land-Rover will carry heavy loads and at the same time will tow loaded trailers much in excess of its own weight.



Note the clean design of the Land-Rover engine.

THE powerful high efficiency four-cylinder engine of the Land-Rover is the result of many years' experience in automobile engineering. The secret of its efficiency lies in the special design of cylinder head and the shape of the patented combustion chamber. The cylinder head joint is inclined at an angle to the cylinder block. The inlet valve is located overhead and the side exhaust valve is disposed at a considerable angle to the cylinder centre line permitting ample water flow to the valve seat. The shape of the combustion chamber allows for a very short flame travel from the centrally located sparking plug.

he LAND-

POWER

ROVER

The result of this special engine design is outstanding performance with economy of fuel consumption. In the illustration can be seen the central lever for the centre and rear power take-off drive and the transfer gearbox incorporating two trains of gears which, in conjunction with the four-speed main gearbox, gives a range of eight forward speeds.



The forward compartment of the Land-Rover.

PROVISION is made to accommodate three persons in the driving compartment of the Land-Rover. The individual seat cushions are removable, giving access to the petrol filler under the driver's cushion and small tools housed in a locker under the near-side cushion.

The following is a key to numbers :— (1) Hand rail, (2) Steering column, (3) Windscreen locking device, (4) Instrument panel, (5) Gear change lever, (6) Steering column support bracket, (7) Engine starter switch, (8) Slow running control, (9) Cold start control,

(10) Control knob for engaging fourwheel drive in the high gear range,
(11) High and Low range gear selector lever, (12) Hand brake, (13) Clutch pedal, (14) Foot brake pedal, (15) Accelerator pedal, (16) Rubber draught excluders.

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Part of fleet of Land-Rover vehicles in service of large model dairy.



THE CLEAN DESIGN OF THE LAND-ROVER CHASSIS

THIS view of the Land-Rover Chassis shows its clean serviceable design. The drive for the centre and rear power take-off is taken through the main gearbox and the drive to the front and rear axles is from the transfer box. Tubular type shock absorbers are fitted to both front and rear axles. Steering can be arranged for Right or Left-hand driving as required. The chassis frame is of box section with robust cross members and is exceptionally strong, it is designed to withstand hard



usage, and specially treated against corrosion before painting. The Land-Rover is not an adapted vehicle. It has been designed and built for work that no ordinary wheeled vehicle could do. It covers a wide field of usefulness in the service of agriculture, and light or heavy industry.



AS A LIGHT TRANSPORT VEHICLE



The LAND--ROVER WITH ALL-WEATHER EQUIPMENT

 $T_{\rm HE}$ standard production Land-Rover with its all-weather equipment erected. The full standard equipment included in the price of the vehicle comprises :—



Semi-rear view of Land-Rover showing hood rear panel.

Extra strong serviceable hood with rear panel, laced for easy detachament. Two aluminium side doors with sliding side screens of heavy gauge Perspex. Cushions and back-rests for two front seat passengers in addition to driver. Spare wheel and tyre 600×16 . Starting handle, Towing plate for rear drawbar, Pintle hook, Socket for trailer light, Hand rail, Driving Mirror.

AS A MOBILE WELDING PLANT

The LAND--ROVER

takes the power to the job

A COMPLETE travelling Welding workshop fully equipped for Electric Arc Welding, the electric generator being driven by Vee belts from the centre power take-off. This special purpose Land-Rover can be taken just where it is needed

more speedily than any other form of mobile welding equipment previously designed. It is a complete production or general maintenance welding plant invaluable to emergency repair engineers in all branches of industry, and is equally useful to farmers for on the spot welding repair jobs to farm machinery.

This application of the Land-Rover is dealt with in a separate leaflet supplied on request.

The LAND--ROVER

WITH AIR COMPRESSOR

* NOTE

It will be seen from the illustrations that in addition to the Arc Welding equipment, provision is also made in the Land-Rover for carrying Oxygen and Acetylene Gas Cylinders, nozzles and gauges for Oxy-Acetylene Welding. These are shown here to indicate the capacity of the Land-Rover and are not supplied with the vehicle.

> THIS illustration shows the Land-Rover carrying a specially designed Air Compressor driven by Vee belts from the centre

> > power take off and is of particular interest to municipal bodies, Road and Quarry engineers for operating pneumatic tools, etc. The Land-Rover

carries the equipment and the crew. A separate leaflet of this vehicle is available on request.





THE LAND-ROVER REAR POWER TAKE-OFF WITH PULLEY UNIT

The rear power take-off of the Land-Rover is of robust construction designed for many jobs on the Farm and in Industry, and enables power to be taken just where it is wanted. It is driven through the main shaft of the main gearbox. The pulley unit as shown provides belt drive for circular saws, elevators, and other belt-driven machinery. This unit is easily detachable exposing a splined shaft (see below) for operating implements requiring positive drive.



THE LAND-ROVER REAR POWER TAKE-OFF WITH SHAFT DRIVE

In this illustration the Rear Power Take-off Pulley Unit is removed showing the splined positive drive shaft for driving machinery requiring positive non-slip drive; a cowl is fitted to provide protection. To remove the Pulley Unit it is necessary to take off four nuts only, the unit will then slide off the studs and the splined shaft. The Cowl is then fitted to provide protection.



THE LAND-ROVER

Provision is made in the Land-Rover for the fitting of a heater coupled to the water cooling system. Built into the heater unit is a fan which, when switched on, draws in cool air, heats it and passes it through two small adjustable doors into the body of the vehicle.



THE LAND-ROVER CENTRE POWER TAKE-OFF

The centre Power Take-off of the Land-Rover is designed for driving special mobile portable plant carried in the body of the vehicle such as milking appliances, air compressors, spraying machines, electric generators, etc. The driving pulley has three grooves for Vee belts, and is located at the forward end of the rear power take-off driving shaft. It is controlled by a lever and knob mounted on top of the main gear box.



THE LAND-ROVER CENTRE POWER TAKE-OFF SHOWING BELT DRIVE

This illustration shows the centre power take-off with three Vee belts driving an electric generator for a mobile Arc Welding Plant. The control knob is seen through a small trap-door in the floor of the vehicle. For protection the driving mechanism is covered by a cowl.



ALTERNATE POSITION FOR SPARE WHEEL ON THE LAND-ROVER

The standard position for the spare wheel on the Land-Rover is in the body behind the front seats. An alternative position is provided on the top of the bonnet as seen in the illustration. A special fitting is supplied having clips holding the wheel securely in position.







Amongst the many uses to which the Land-Rover can be applied is the movement of machinery and other heavy appliances in factories and grubbing out old tree roots in farm and forestry work. To cater for these operations and for many others that arise for which a power-driven portable capstan winch is necessary, two winches are available for fitting to the front or rear of the Land Rover.

Both are power driven, the front winch is driven from the front end of the engine crankshaft via a dog clutch and universal shaft. The winch being mounted between the forward end of the chassis side members and the front bumper and is brought into engagement by a lever positioned alongside the bollard. The rear winch is designed for use in conjunction with the rear power take-off and is in engagement with the splined shaft drive unit. It is driven through the rear power take-off propellor shaft and operated by the power take-off lever on the main gearbox.

When not required the winch can be easily and quickly removed, leaving the splined driving shaft for other uses or it can be replaced with the power take-off pulley unit.

Both front and rear winches are designed for a pull of 2,500 lbs. (1.135 kg.) and should be used with the engine running at a speed of 600 r.p.m., i.e., fast idling speed. The ratio of the worm drive in the front winch is 75 : 1 providing a rope speed, with the engine running at 600 r.p.m. of 9.6 ft. (2,9 metres) per minute. The ratio of the worm drive in the rear winch is 25 : 1 providing a range of rope speeds which varies in accordance with the ratio of the gears engaged. These are detailed below :—

Rear Power Take-off Ratio	Main Gear Change Lever in :											
	First		Second		Third		Тор					
	Feet Min.	Metre Min.	Feet Min.	Metre Min.	Feet Min.	Metre Min.	Feet Min.	Metre Min.				
5:6	8.0	2,5	11.8	3,6	17.5	5,3	24.0	7,3				
6:6	11.5	3,5	14.4	4,4	25.1	7,6	34.5	10,5				



CHASSIS SPECIFICATION

Subject to alteration without notice.

Engine. Flexibly mounted on rubber at four points. Four cylinders, bore 77.8 mm. Stroke 105 mm. 1997 c.c. Maximum brake horse power 52. Three bearings counterbalanced crankshaft of high specification steel of ample dimensions. Camshaft in crankcase driven by double roller silent chains with hydraulic adjuster. Firing order 1, 3, 4, 2.

Valves. Overhead inlet valves operated by rocker and push rod from camshaft. Side exhaust valves with inserted valve seat operated by rocker in direct contact with camshaft.

Pistons. Aluminium. Inverted V-shaped head to conform to patented design of semispherical combustion chamber giving increased compression turbulence. Two compression and two scraper rings are fitted.

Clutch. Single dry plate 9 in. (230 mm.) diameter.

Dynamo. Automatic voltage regulator 12v.

Starter. Operates on flywheel.

Carburettor. Down draught.

Petrol Filter. Mounted on engine side of dash.

Air Cleaner. Oil bath type.

Transmission. To rear and front axle by open propeller shaft via two speed transfer box.

Brakes. Hydraulically-operated foot brakes requiring very light pedal pressure and infrequent adjustment. The hand brake operates on the transmission shaft to the rear axle and is mechanically actuated by rods.

Rear Axle. Semi-floating. Spiral bevel type. Ratio 4.7:1.

Cooling System. Water circulation by pump. Thermostatic control. A fan is fitted. Water capacity 17 pints (9,75 litres).

Lubrication. By pressure from gear type pump forcing oil to all bearings, timing chain and valve gear. Capacity 10 pints (5,5 litres).

Gears. Four forward speeds and reverse. Ratios: first 3.00:1, second 2.04:1, third 1.38:1, top 1:1, reverse 2.54:1.

Transfer Box. Incorporates two speeds which in conjunction with the main gearbox give a comprehensive range of eight forward gears. Ratios : first 2.888 : 1, top 1.148 : 1.

Ignition. Coil and battery. Automatic controlled ignition. Advance, 12 volt battery. Capacity 51 amp. hours.

Front Axle. Fitted with differential similar to rear axle. The drive to front wheels is through constant velocity universal joints totally enclosed.

Chassis. Side and cross members of box section forming an exceptionally rigid assembly.

Steering. The steering wheel optional right or left-hand driving position.

Fuel Supply. From 10-gallon (45 litres) tank under driver's seat.

Springs. Semi-elliptic. Four tubular type shock absorbers are fitted.

Wheels. Detachable disc wheels with 16 in. \times 6.00 tyres. Dunlop. Heavy duty traction type.

Dimensions. Overall width 61 in. (1,55 m.) approx. Overall length 132 in. (3,35 m.) approx. Wheelbase 80 in. (2,03 m.). Track 50 in. (1,27 m.). Weight of vehicle 2,604 lbs. (1.182 kg.).

Draw Bar Pull. 1,200 lbs. to 2,000 lbs. (550 to 900 kg.).

Rear Power Take-off (at extra cost). Drive through back of main gearbox to rear of chassis. Can be fitted to give pulley drive for threshers, chaff cutters, circular saw, etc., or shaft drive for power mowers, binders, combine harvesters, etc.

Centre Power Take-off (at extra cost). Arranged to drive by V belts, compressors, generators and other portable equipment which can be mounted in the body.

Body and general sheet metal work of high tensile non-corrodible light alloy.

All external steel fittings galvanised.



ТНЕ

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The Land-Rover general utility vehicle is designed and built by the same group of Engineers, responsible for the production of "One of Britain's Fine Cars" and culminating in the introduction of the world's first Gas Turbine driven car. The name Land-Rover is a registered Trade Mark of The Rover Company Limited.

Persons dealing in the Company's goods are not the agents of the Company and have no authority whatsoever to bind the Company by any expressed or implied undertaking.



P.T.O.

	<i>Extras continued</i> <i>ation No.</i> Extra for five 7.00 ["] Dunlop "Fort" Tyres	£	s.	d.	
E/33	instead of standard Dunlop $6.00^{\circ} \times 16^{\circ}$ Tyres	21	10	0	
E/15a	Carrier on bonnet for spare wheel with $6.00'' \times 16''$ Tyre	1	1	0	
E/15b	Carrier on bonnet for spare wheel with $7.00'' \times 16''$ Tyre	1	. 1	0	
E/10	Chaff Guard	2	2	3	
E/18	Ventilator for Windscreen	1	16	9	
E/14	Heater	7	7	3	
E/23	Trafficators	2	15	0	
E/28	Heavy Duty Pintle Hook	. 1	10	0	
E/25	Grass Shield for Universal Joints	1	1	0	
E/27	Brockhouse 15-cwt. Trailer	85	0	0	

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NOTES

The Engine Governor E/5 is essential if the Centre Power Take-off is specified, or if a Rear Power Take-off is specified with Pulley Unit E/3.

If both Rear and Centre Power Take-off are specified pulley and fittings E/6b must be supplied.

The prices quoted for extra equipment are valid only if such extra equipment is fitted before vehicle is delivered from Works. If ordered after delivery from Works a fitting charge will be made. All prices and specifications quoted in this catalogue, of which this leaflet forms a part, are subject to alteration without notice. Prices are for delivery ex Works.

No allowance can be made in respect of any item of Standard Equipment not required.

The Land-Rover is subject to the guarantee conditions contained in the Guarantee Form issued by The Rover Company Limited. The name "Land-Rover" is a Registered Trade Mark of The Rover Company Limited.

Persons dealing in the Company's goods are not the agents of the Company and have no authority whatsoever to bind the Company by any expressed or implied undertaking.

The Land-Rover can be supplied as a mobile Welding Plant or fitted with Air Compressor as shown on page 13 of catalogue. Prices and particulars on application.

E.& O.E.

January, 1952

wwwwwwwwwwwwwwwwww The LAND--ROVER SUPPLIED STANDARD EQUIPMENT WITH EACH VEHICLE Two aluminium doors with Perspex sidescreens ; full hood with rear panel ; cushions and back-rests for two front seat passengers ; spare wheel and tyre, $6.00'' \times 16''$; starting handle; driving mirror; towing plate for rear draw bar; pintle hook; socket for trailer light; hand rail. PRICE £598 Subject to alteration without notice. Jan., 1952 E. & O.E.

