

X-35440

ROVER 1954 PROGRAMME - SUMMARY

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CARS

Two new models - a 4-cylinder 2-litre and a 6-cylinder 2½-litre - comprise the range with the well-known '75', which has a 6-cylinder 2-litre engine.

All three retain substantially the same chassis and bodywork as the '75', with detail improvements. The gear-box now includes synchro-mesh on second as well as third and top gears and a central positive gear change lever takes the place of the former steering column lever, giving positive control over gear change and also unobstructed floor space for three-abreast front seating.

Chassis modifications include the reduction of greasing points to four, all on the propeller shaft, and detail refinements to engine mountings and shock absorbers, giving still greater smoothness and riding comfort.

All three different engines retain the well-known Rover layout of valve gear and combustion chamber, and all have aluminium alloy cylinder heads.

The body remains substantially the same except for one or two additions to equipment. External side lamps are now fitted to each front wing, ~~now~~ visible to the driver. The tool tray, formerly under the front seat, is now more accessibly sited under the dashboard locker opposite the front passenger's seat. A windscreen washing device is standard equipment on the '75'

and the  $2\frac{1}{2}$ -litre , which is known as the Model '90'.

Engine dimensions of the two newcomers are: the 4-cylinder 2 litre, (Model '60'), 1997 c.c.; the six-cylinder  $2\frac{1}{2}$  litre (Model '90'), 2638 c.c. Both engines have a single carburetter and full flow oil filter. The 6-cylinder engine of the Model '75' remains the same as formerly.

### LAND-ROVERS

The 1954 Land-Rover has a longer wheelbase - 86 ins. compared with 80 ins. - 25 per cent. more load capacity at the rear , and greater driving comfort, the back axle having been moved 6 ins. farther behind the driving position, and improvements made in weatherproofing and ventilation.

Re-positioning of control pedals and gear lever makes for easier operation and other innovations include a new spare wheel carrying bracket (leaving the body floor completely flat), flush-fitting exterior door handles, large, easily read instruments and conveniently placed parcel shelves.

With its 4-cylinder 52 b.h.p. engine, four wheel drive, eight forward and two reverse speeds, and centre and rear power take-off points, the Land-Rover is adaptable for an almost infinite variety of jobs in agriculture and industry.

Various modifications or extras for individual requirements are available. Examples are a metal detachable top as an alternative to the hood, or a metal truck cab.

In addition, The Rover Company is introducing a larger version Land-Rover in the form of a pick-up truck, with a

wheelbase of 107 ins. and a greatly extended load capacity. The pick-up has all the advantages of four-wheel drive and extreme mobility of the basic Land-Rover, but its emphasis is on load capacity. The rear load carrying section is 57 ins. wide and a full 6 feet long, giving ample space for bulky objects. This makes it ideal for use in constructional work in remote or difficult places, for extended surveys, forestry, oil and mineral prospecting and similar assignments well off the beaten track.

The pick-up truck is available in two versions, a standard vehicle and a "De Luxe" trim model. Each is available in two colour schemes - blue with grey wheels and grey with blue wheels - and in the "De Luxe" trim version the cab is finished in blue and cream and incorporates such refinements as a roof lining of cream-coloured plastic covered felt, blue leather-cloth facing for the rear panel and the lining of the capacious door pockets, three separate foam-rubber cushion seats and a bench-type back rest trimmed to match the cushions in blue and cream plastic woven fabric. Plastic felt also covers the floor and an interior light is fitted in the cab roof.

A wide range of optional extras for both versions of the pick-up truck includes combined heater and screen de-mister, and radio.



THE ROVER COMPANY, LIMITED,  
Meteor Works, Solihull,  
Birmingham, England.

February, 1953.

### COMPANY HISTORY

The foundations of The Rover Company, Limited, were firmly laid in the year 1877, when the famous old Midland city of Coventry was seeking a substitute for its ruined silk and watch industries. Then, two engineers, John Kemp Starley and William Sutton, joined forces and began to manufacture bicycles of the "Penny Farthing" type, including, in 1880, the Meteor Tricycle.

The Starley-Sutton partnership did not exist for very long - Sutton withdrew, but Starley, with the most commendable foresight, carried on and, realising that there was little future for the high bicycle, evolved the idea of a bicycle driven from the rear wheel. This epoch-making design was the original of what is now the only type of bicycle made, and, in 1884, the Rover rear-driven bicycle set the fashion to the world.

About the year 1896, J.K. Starley & Company became The Rover Cycle Company and continued to build cycles, which became famous all over the world. In fact in 1904 an expedition to the forbidden city of Lhasa, Tibet, found that a Rover cycle had preceded them there.

From the building of bicycles it was a natural step to making motor-cycles, and in 1903 the first Rover motor-cycle of 2 $\frac{1}{2}$  h.p. was completed. The decision to build motor cars followed, and in 1904 the first Rover car made its public appearance. It was of 8 h.p. and, curiously enough by present day standards, was considered too powerful! Consequently a smaller and more orthodox model of 6 h.p. was produced in 1906. Records show that this car was sold at the astoundingly low cost of one hundred guineas, and it is probable that this was the first approach to be made to the "Hundred Pound Car".

The Rover Cycle Company then became The Rover Company Limited and devoted its entire production capacity to building motor cars.

Two more models were introduced, one of 10/12 h.p. and the other of 16/20 h.p., one of these latter models winning the Isle of Man Tourist Trophy Race in 1906.

In 1911 a new high efficiency 12 h.p. model car was produced and gained great popularity, then the first World War intervened and the car production stopped.

The Company's activities were devoted to the common cause during the war years 1914-18, and in 1919, having acquired additional large works at Tyseley, Birmingham, production began on an air-cooled car of 8 h.p. which from the first was destined to make history. More than 17,000 models of this type were produced.

With the desire of developing a more attractive range of cars the 14/45 and 16/50 four-cylinder models made their appearance. The 14/45 model was awarded the Dewar Trophy for the most outstanding performance of the year in an observed R.A.C. test on September 22nd 1925. Fifty consecutive ascents of Bwlch-y-Groes, considered the most difficult test hill in Britain, were made in a period of twelve hours, with no mechanical trouble and the loss of less than half a pint of water from the cooling cylinder.

The year 1928 saw the introduction of the first six-cylinder Rover, known as the Two Litre. This model was the forerunner of a line of Rover six-cylinder cars which were destined to become household words, such as the "Blue Train" and "Meteor" models, and culminating with the Light Twenty Speed Model which possessed excellent acceleration and high speed characteristics.

In February, 1930, one of the Company's then current models, the Light Six, beat the famous French Blue Train Express by twenty minutes on the tour from the Riviera to Calais. Details make this bare statement even more impressive. The weather was very poor, intermittent rain and fog being encountered, fifty-seven railway level crossings had to be negotiated, and the first thirteen hours of the journey had to be completed in darkness.

In 1932, major reorganisations in the Company took place, and coming under the management of Mr. S.B. Wilks, the present Managing Director, a policy with an emphasis on engineering quality became the order of the day. This policy has continued to the present with great success.

By 1939, the various cars being manufactured by the Company were the acknowledged leaders in their class. These consisted of the four-cylinder 10 and 12 h.p., and the six-cylinder 14,16 and 20 h.p. cars.

On the outbreak of World War II in September 1939, private car production ceased almost overnight. The Company's factories assumed a new internal appearance. Motor car engines were replaced by aircraft power units, car bodies disappeared and in their places came huge aeroplane wings. Other factories were taken over, employees were dispersed to various parts of the country, and productive capacity was vastly expanded to assist in meeting the demands created by war.

The Rover Company was asked to assist with the prototype and development of the Whittle Jet Engine, and this they did with marked success which will be discussed later in more detail.

Amongst other Rover war-time products was the highest powered operational engine for tanks called the "Meteor", and in fulfilment of one of several government contracts more than 67,000 Bristol type aero-engine sets were produced.

At the end of hostilities in 1945 came the reorganisation for the production of cars. During the war the Company's factory at Coventry was severely damaged by enemy bombing and in view of the reconstruction difficulties encountered it was decided to take over from the Government one of the war-time aircraft factories at Solihull, near Birmingham, managed by The Rover Company, Ltd., during the war. This factory has an area nearly 90 acres in extent with a building frontage of almost 1,200 feet.

From here the highly respected and popular pre-war models began to emerge in increasing numbers, and there was keen speculation regarding the Company's first post-war model.



An interim model - the P.3 - was produced in 1948. This had independent front suspension, an entirely new design of engine and many new and interesting chassis details. The next step was a new body and in October, 1949, the new 1950 Rover '75' was one of the sensations of the London Motor Exhibition. Until that time Rover cars had been strictly traditional in appearance. Now one new model of entirely - though not extravagantly - modern lines replaced the familiar post-war types. Whilst technical experts recognised that the chassis and engine of the new '75' were an outstanding example of automobile engineering, the lay motorist realised that the new body lines achieved pleasing and graceful proportions in terms of the 'new look'. Furthermore, the policy of engineering quality was maintained throughout the car.

This Rover '75', having been universally recognised as a continuation and, in fact, a development of the traditional Rover reputation for elegant finish and smooth and efficient motoring, has undergone only minor modifications, noticeably a change of radiator grille, up to the present day.

In fulfilment of a world-wide requirement, an entirely new all-purpose, four-wheel drive vehicle was designed. This model, introduced to the public in 1948 and called the Land-Rover, met with immediate success both at home and overseas, and has been earning much needed foreign currency for Britain in increasing quantities. Though designed primarily for agricultural use, its adaptations have proved to be almost limitless and Land-Rovers are to be found operating in numerous forms in industry, home and overseas fighting Services, forestry work, fire service, public works, on airfields, and in a variety of other active spheres.

The ability of the Land-Rover to negotiate the toughest types of terrains is now a proven accomplishment, and these versatile 'go anywhere' vehicles are performing daily tasks in the ice and snow of Canada and Northern Scandinavia, over the sands of the Sahara, and through the jungles of Africa, South America, and the Far East.

In 1951 the first and famous Mediterranean - Cape Town Rally, involving a journey of approximately 9,500 gruelling miles through the Continent of Africa, brought victory to Messrs. Robert and Raymond Lapalu, two Tunisian farmers, who, with their 1.6 litre Land-Rover, gained a triple tie for first place in the general classification, and were the outright winners in the 1000-2000 c.c. category.

The Lapalu brothers, not content with victory, effected a rapid turn-around in Cape Town, and in less than a week were driving back to Tunis, which they reached successfully, having on the return journey broken the record for the Fort Lamy - Tunis crossing of the Sahara.

In July, 1951, 1.6 litre engines were replaced by 2 litre power units for Land-Rovers, giving amongst other favourable characteristics, increased power for tough work and improved acceleration.

The Land-Rover, however, represents only one of a number of notable developments introduced by the Company since the end of the war. Of these, certainly the most outstanding is the design, construction and demonstration of the world's first gas turbine powered car.

The story of Rover's connection with gas turbine engines goes back to 1940 when the Rover Company was associated with Air Commodore Frank Whittle in the early development stages of the Whittle jet engine for aircraft propulsion. The Rover Company built some of the first of these engines and, in fact, early in 1942 received permission from the Ministry of Aircraft Production to embark on their own design of a jet propulsion gas turbine. This power unit, known as the Rover B.26, was based generally on the Whittle engine, but instead of the reverse arrangement peculiar to all Whittle units, the Rover engine embodied a 'straight-through' layout of combustion chambers. This new concept became the basis of the famous Rolls Royce Nene and Derwent engines, and is now an accepted principle in jet engine design.

A further improvement introduced by the Company, despite considerable opposition at the time, was electric starting, and this method was subsequently adopted as standard practice on all British jet units.

With the end of the war the Rover Company considered that the pool of highly specialised knowledge gained on gas turbine engine design and production was too valuable to be allowed to stagnate, and so a team numbering fewer than twenty engineers, led by Mr. Maurice C. Wilks, the Company's chief engineer, embarked on a development programme for small gas turbines suitable for car propulsion and other applications. Amid world-wide speculation this team kept steadily and quietly at work until the day arrived when it was possible to prove publicly that a gas turbine power unit could be used for the propulsion of a normal type of car.

Early in 1951 it was announced that the Royal Automobile Club, having decided to revive the annual award of the Dewar Trophy for the most outstanding technical achievement in automobile engineering during a given year, had made the first award since 1929 to The Rover Company for producing the gas turbine car.

To mark a further stage in the development of the Rover gas turbine car on June 25 and 26, 1952, some twenty-seven months after its first appearance, a gas turbine powered car was taken to Belgium to carry out observed tests on the Jabbeke motor road outside Ostend.

This car passed through the tests with outstanding success, and established standing and flying start mile and kilometre speeds which will stand for all time as the world's first officially observed times for a gas turbine powered car.

These are the speed figures established :-

Date	Measured Over	Average Speed	Average Speed
		Km/Hr.	m.p.h.
25.6.52	Km.(Flying)	225.988	140.422
	Mile (Flying)	221.130	137.403
25.6.52	Km.(Standing)	132.596	82.891
	Mile (Standing)	153.962	95.668
26.6.52	Km.(Flying)	244.565	151.965
	Mile (Flying)	243.327	151.196



It is readily evident that The Rover Company, Limited, since its inception in the past century, has established a record of engineering accomplishments of which the Company and all who are associated with it are naturally very proud.

This record will remain as an inspiration and a tradition to be maintained in the future so that, in years to come when the yet unwritten pages of the Company's history are compiled, they will present as impressive reading as has been given in this brief survey of achievements.

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