

Rootes Archive Centre Trust

## History of The Rootes Group

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### Abstract

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## 1 Introduction

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## 2 The Rootes Group – a Survey of a Great Enterprise.

c. 1961

Standing among the bicycles in his workshop, Mr. William Rootes, father of two boys named William and Reginald, decided that the time had come for him to start selling the noisy machines which were frightening the horses in the Kentish lanes round his home. "There's a future in motor cars" he said.

The time was the turn of the century and Mr. Rootes was a better prophet than he knew. Motor cars were to become one of Britain's greatest industries and his two sons were destined to emerge as industrial leaders and as builders of their own motor empire.

The decision taken by Mr. Rootes that day in his shop at Hawkhurst, Kent, was the seed from which grew the Rootes Group, an assembly of companies formed for the manufacture, distribution, sales and service of cars and commercial vehicles. Today, Lord Rootes and Sir Reginald Rootes, the sons of that Kentish bicycle manufacturer, are Chairman and Deputy Chairman of the Group.

Rootes Motors Limited is the parent company controlling the interests of the Group. The manufacturing undertakings are:

- Humber Ltd., Coventry
- Hillman Motor Car Company Ltd., Coventry
- Sunbeam-Talbot Ltd., Coventry
- Singer Motors Ltd., Birmingham
- Commer Cars Ltd., Luton and Dunstable
- Karrier Motors Ltd., Luton and Dunstable
- Thrupp & Maberly Ltd., London
- British Light Steel Pressings Ltd., London
- Tilling-Stevens Ltd., Maidstone (Kent)
- Tempair Ltd., Maidstone (Kent)
- Rootes (Scotland) Ltd,

A number of other Group companies are devoted to the sale and service of Group vehicles at home and abroad and for managing finance and hire purchase facilities. In addition the Group has one of the largest car-hire organisations in Europe and its own driving schools in London and the Provinces.

## 2.1 Humber Limited

Long before the first motor car ran on the road, Humber cycles were world famous. The original company took its name from Mr. Thomas Humber who, in 1867, laid the foundation of the existing business. In 1887, the undertaking became a limited liability company.

The first Humber car was made in 1899 – a 3-1/2 h.p. model known as the “Phaeton”. During World War I the resources of the company were given over to armaments manufacture (including aero engines) and afterwards it resumed manufacture of a range of high-class cars.

In 1926 a link was established with commercial vehicle manufacturer through the purchase of the organisation at Luton which then became known as Commer Cars Limited. Throughout World War II, Humber Ltd. were responsible for many products apart from aero engines. It gained a new reputation making staff cars and armoured cars for the British and Imperial Forces.

In December 1954 the War Department presented to the Group the historic staff car used by Field-Marshal Montgomery throughout the North African and Italian campaigns, as testimony to “the good service rendered by Humber vehicles” during the war. The car “Old Faithful” has become a symbol of the motor industry’s war effort.

In 1952 a Humber Super Snipe was driven overland from London to Cape Town in 13 days 9 hours and 6 minutes – a time which has still not been bettered, and Humber cars have gained an un-paralleled reputation for quality all the world over. The styling of the latest Humber cars was recognised by the fashion-conscious Italians themselves in 1957 and 1958, when Humber cars received top awards in the annual Rome Concours d’elegance competition.

## 2.2 Hillman Motor Car Company Limited

Founded in 1907 by pioneer motorist Mr. William Hillman, the Hillman Motor Car Company has a long and unique record of producing quality cars with a popular appeal.

In 1911 Lord Rootes introduced a new light car at the Motor Show of that year. Called the Hillman Minx, it represented a new conception of light car design.

The designers had created a useful, yet functional body around four seated adults and then placed under it a chassis adequate to the body’s dimensions yet capable of transporting it at speeds up to a mile a minute and at a petrol consumption of between 36 m.p.g. and 40 m.p.g.

The result was a car which was the sensation of the 1931 Show and which laid the foundations of a remarkable tradition.

Since that year, there have always been Hillman Minxes on the roads of the world. The car has held the motoring spotlight for longer than any other British light car, and no other British model has carried the same name so long. The Hillman Minx, and its smaller estate our sister, the Hillman Husky, continues to be a best seller both at home and abroad and it is now being exported to more than 160 countries.

### 2.3 Sunbeam-Talbot Limited

The Sunbeam-Talbot Company is an amalgamation of the technical skill and manufacturing experience of two famous British sports and racing car concerns.

From 1909 to 1926 Sunbeam cars won races and broke speed records with remarkable regularity. In 1926 it was a Sunbeam which first exceeded 150 m.p.h. and a year later it was again a Sunbeam which raised the world's record to the phenomenal figure of 203.44 m.p.h.

The Clement-Talbot Company was established in London in 1902 and a Talbot car, in 1913, became the first vehicle to cover more than 100 miles in an hour. By 1914 the company had won more than 100 first awards.

The two distinguished names were merged under the Rootes banner in the mid-1930s and the post-war years saw Sunbeams pioneering the return by manufacturers to competitive work in the rally field.

A steady run of successes soon won Sunbeam Talbot cars – the “Talbot” was later dropped to avoid confusion with a French model - a new reputation in competition motoring. Since the war major Sunbeam victories included:

First place, acceleration and braking tests, International Alpine Trial (1948, 1949, 1950); second place Monte Carlo Rally (1952); three Coupe des Alpes and manufacturer's team prize, Alpine Trial (1952); four Coupe des Alpes, Alpine Trial (1953); manufacturer's team prize, Great American Mountain Rally (1953, 1954); first place and Coupe des Dames, Monte Carlo Rally (1955).

In the 1956 Monte Carlo Rally Sunbeams made history by taking the manufacturer's team prize for the third time, so winning the Charles Faroux Challenge Trophy outright – the first time this had been done in the history of the arduous Rally.

The name of Sheila van Dam: will always be associated with Sunbeam, for she won more than 56 trophies driving cars of the famous marque, Miss van Dam won the title of Champion European Woman's Driver in 1954 and 1955. She retired in January but returned to the wheel in the spring of 1956 when a brand new Sunbeam made its competition debut.

The new Sunbeam Rapier won its class in the Mille Miglia road race and since then has gained an outstanding reputation as a rally car: winning the 1958 R.A.C. International rally outright, gaining a Coupe des Alpes in the Alpine Rally that year and gaining the unique distinction of being highest placed British car in the Monte Carlo Rallies of 1958, 1959 and 1960.

### 2.4 Singer Motors Limited

Quality and craftsmanship were the ideals that inspired George Singer from the time he first began manufacturing bicycles in Coventry in 1876. His customers then included one queen, two princesses, two grand duchesses, two duchesses, a marchioness, thirteen countesses, and thirty-one other peeresses of varying rank.

Singer motor cycles won a similar reputation and the first Singer car, produced in 1904, firmly established the Company as successful motor manufacturers.

During 1911 the cars achieved a series of record-breaking successes at Brooklands and elsewhere and it was during this period that a young man named William Edward Rootes joined the Company to work as a penny-an-hour apprentice and began racing Singer motor cycles in his spare time.

Shortly afterwards the Company made history when it produced the famous Singer 10 – one of the forerunners of the light car. In 1914 the little car captured all the one to nine hours Brooklands records for the under 1,100 c.c. class.

Exactly twenty years later Singers became the first British manufacturer to fit independent front suspension and to produce a car with a clutchless gear change. The Company also introduced the world's first streamlined car, the Singer Airstream. At the same time Singer's success in the world's toughest competitive events gave a name to one of the firm's most famous ranges – the Singer 9 and 1-1/2 litre Le Mans models.

On December 29, 1955, Singer shareholders decided to accept an offer to become part of the Rootes Group with the assurance that the Singer name and reputation would be kept alive.

At 9.00 am. the next day, Rootes and Singer executives went into conference and within three hours handed their designers the brief for a new model – an 80 m.p.h. car which was to set new standards of luxury and quality at its price.

Just nine months later the new model – the Singer Gazelle, was announced to the world – the plan had been fulfilled and another bright new name had been added to the long list of Singer successes.

## **2.5 Commer Cars Limited**

Commer Cars Ltd., was originally founded in 1905 for the manufacture of commercial vehicles and, by the time World War II ended had had 40 years un-rivalled experience in this field.

It was one of the first British motor firms to enter the export market and has built many "out of the ordinary" vehicles. It is on record that among its designs was a commercial vehicle with straked wheels for Patagonia, another with power-loading gear for New Zealand and a third with steel tyres and hauling drums for Siberia.

In 1926 this Company became actively linked with Humber Limited. After World War II Commers laid down a programme for a completely new range from 8-cwt vans to 12-ton petrol or diesel-engined commercial Vehicles and introduced its 1500 range in 1960. It has now one of the widest ranges of any commercial Vehicle manufacturer.

## **2.6 Karrier Motors Limited**

Karrier Motors Ltd., was established in 1907 and after 1918 began to specialise in vehicles for municipal purposes. Karrier is a large supplier of municipal vehicles such as refuse carriers, gully emptiers, and ambulance, which are big foreign currency earners.

## **2.7 Thrupp & Maberly Limited**

More than half a century before Stephenson's Rocket made its successful trial trip in 1829, the house of Thrupp, coach and carriage builders, was established in London. It quickly made a name for craftsmanship in an age when handbuilt chaises, landaus, phaetons, gigs and coaches were things of beauty and grace.

That reputation still remains with the modern firm of Thrupp & Maberly Ltd., the oldest concern in the Rootes Group. Craftsmanship is still the keynote of every activity in the Thrupp factory, now mainly engaged in applying the distinctive trim and finish to the Group's convertibles and luxury saloons.

## **2.8 British Light Steel Pressings**

This Company is a comparative newcomer to the motor industry, for it was founded in 1930 and for years made a wide variety of pressings for almost every trade but the motor industry.

Then, in 1937, B.L.S.P. was taken into the Rootes Group and moved into its present premises at Warple Way, Acton. There, it immediately began making body shells for Sunbeams – a name with which it has always been associated.

The Company, which houses some of the largest presses in Britain, produces a wide range of car and commercial vehicle components for the Rootes Group – including suspension units, petrol tanks and many small pressings – as well as body shells.

## **2.9 Tilling-Stevens Limited**

Originally founded at Maidstone in 1897, Tilling-Stevens Ltd., has a long and successful career as independent commercial vehicle manufacturers, and just before the war took over Vulcan Motors.

In 1950 the firm joined the Rootes Group and its works were re-organised for a new role specialising in engine production. Now Tilling-Stevens manufacture the revolutionary Rootes two stroke three cylinder diesel engine which has attracted world-wide attention, and also re-condition all types of Group petrol engines and Ministry of Supply engines.

## **2.10 Tempair**

This company, of which the Rootes Group acquired a controlling interest in 1956, manufactures air-conditioning equipment over a very wide range. Since its take-over by Rootes, the company has gone from success to success and its production has increased many times in the last few years. Tempair now has agents throughout the world and its rungs of units are sold in a wide variety of countries .

### 2.11 Rootes Scotland Limited

This company is the youngest member of the Rootes Group and is devoted to the manufacture at Linwood, near Paisley, of a new Hillman small car – the first car to be produced in Scotland since 1928.

The company has announced that the new Hillman will be a "baby" car, smaller than the present Minx. A completely new factory is being built to produce it and a separate die-casting plant – one of the most modern of its kind in the world – is part of the scheme. The whole project, together with the extensions being made to the neighbouring Pressed Steel factory which will make the bodies will cost a total of £23-1/2 million. About 7,000 people will be employed at the factories.

The Hon. John Siddeley, one of Britain's leading Consultant Designers, has been commissioned by the Rootes Group to advise on the interior decor of the new plant.

The car is being designed to suit export markets and initial production will be about 150,000 units a year. Production is expected to begin in early 1963, and approximately half is scheduled to be sold overseas.

### 2.12 Development of the Group

The Rootes brothers began their famous partnership after the end of the first World War. They built up a flourishing car sales business in Kent before opening premises at Long Acre, London. In 1926, never loath as always to seize an opportunity, they took over Devonshire House in Piccadilly as the headquarters of Rootes Ltd.

They had made their reputations as salesmen of drive and imagination and after a decade of selling cars they knew, probably better than any other men in England, just what the customer wanted. And they felt that he was not getting it.

In 1928, the Rootes brothers were the largest distributors in England. At that juncture they crossed their biggest bridge and decided to begin manufacturing. The Rootes Group was formed by the acquisition of control of the Humber, Hillman and Commer companies.

These companies at this time were handicapped by out-dated plant and old fashioned production methods. The task facing the brothers was that of turning failure into success – and they accepted the challenge.

Karrier Motors was acquired and so was Clement-Talbot Ltd. British Light Steel Pressings followed in 1957 and a year later the Sunbeam Motor Car Company Ltd., was taken into the Rootes Group and merged with Clement-Talbot Ltd.

For these companies this was a new era. Instead of separate plants with resources insufficient to meet the demands of extending and changing markets, they were now part of a strong centralised organisation into which each dovetailed smoothly. By cutting costs and centralising control in a manner ahead of their time, William and Reginald Rootes had formed a group which was a powerful, almost self-contained giant.

The Rootes Group's contribution to the war effort began, not in 1939, but three years earlier. Rootes was the first company to enter the Government's Shadow Factory Scheme for the volume manufacturing of aeroplanes and aero-engines. By the time the sirens were sounding, Rootes factories were turning out aircraft as well as vehicles for the R.A.F. and other services.

When war finally came William and Reginald put their services at the disposal of the Government. William was appointed Chairman of the Shadow Industry Plan and he headed the Supply Council of the Ministry of Supply. Reginald saw to it that the assembly lines of the Rootes Group rolled out fodder for the war machines and he played a prominent part in the application of quantity production methods to aero-engine and aircraft construction. This earned him a knighthood.

But perhaps the work which caused William Rootes the greatest satisfaction during the war was the part he played after the terrible night of November 14-15, 1940, when the Germans dropped 35,000 incendiary bombs, 50 land mines and 1,400 high explosive bombs on the city of Coventry.

The task of leading a reconstruction committee to set Coventry on its feet again was given to William Rootes, In 1942, as a result of the raising of Coventry and other prodigious war work, William Rootes became Sir William Rootes, Knight Commander of the British Empire.

Peacetime assessments in 1945 revealed that the Rootes Group had made one out of every seven bombers produced in the United Kingdom during the war, 60 per cent of the armoured cars and 30 per cent of the scout cars. It had also built 50,000 aeroplane engines, had repaired 28,000 others wrecked in crashes or in battle, had repaired more than 12,000 vehicles for the army and the Royal Air Force and had assembled 20,000 other vehicles imported from allied countries.

At the beginning of the war, 17,000 employees were on the Rootes payroll. By the end, one in every hundred people in Great Britain employed as civilians in the war effort was working for, or on behalf of, the Group.

After the war it became obvious that Britain, more than ever before had to export to live. The motor industry took the lead and the Rootes Group, under the leadership of the much-travelled Sir William Rootes, began its own intensive export drive.

The Group, which in 1931 had been one of the first companies to establish a sales organisation in Latin America, became the first to set up a motor factory in Australia, then rapidly developing as one of Britain's most valuable markets. By the end of 1945 the plant was already producing cars and trucks for the Australian market.

The early post-war years saw not only the establishment of new factories abroad but also the setting up of new Rootes trading organisations in key overseas markets.

Among these was Rootes Motors Incorporated, an independent concessionaire company with headquarters in New York and with a distributing organisation covering all major American states to meet the increasing demand in the United States for British cars. In addition, Rootes Motors (Canada) Ltd., another concessionaire company, with headquarters in Toronto, was set up in the same year, 1947. Before 1948 the Group had its own company trading in Belgium and another concessionaire company was established in Rio de Janeiro, Brazil. Other companies, in other countries, followed.

Now the Rootes Group is maintaining factories with more than seven million square feet of floor space,

it has 15 concessionaire companies and many assembly plants overseas. It exports to more than 160 countries – a figure which is increasing continually – compared with a pre-war total of 69.

When completed, the Group's new factories in Scotland will provide an extra 1,600,000 sq.ft. of floor space.

Sir William Rootes's long service to his country, particularly in the export field, was further recognised in January 1959 when he was created Baron Rootes of Ramsbury in the county of Wiltshire. Despite its size and the scope of its activity, the Rootes Group is unique among British motor manufacturers in that it remains a family concern. Lord Rootes' son, the Hon. Geoffrey Rootes, is Deputy Chairman and Managing Director of the Group's manufacturing companies, and the Hon. Brian Rootes, the second son of Lord Rootes, is now Managing Director of Rootes Ltd. the Group's merchandising company.

Mr. Timothy Rootes, the son of Sir Reginald, is Director in Charge of Sales and Service of the manufacturing companies, covering more than 1,000 dealers in the U.K.

The second generation follows closely in the footsteps of the first and is prepared to carry on the family tradition of high quality manufacture and forceful trading. It is ready to add many more vital chapters to the colourful story of the Rootes Group.

### **3 Chrysler United Kingdom Limited – a History of the Company**

August 1971.

Chrysler United Kingdom Limited was founded as Rootes Motors Limited and the famous names carried by its products have their origins in the earliest days of the motor industry.

The Humber Company, originally famous for its bicycles, made its first car in 1899 and won a special reputation for the comfort and quality of its products. The first Hillman appeared in 1907, whilst Sunbeam cars, which first appeared in 1899, have been winning races and breaking speed records with remarkable regularity for more than 60 years.

Commer Cars Limited first began making commercial vehicles in 1905, and Karrier Motors Limited was established in 1907 and since 1918 has specialised in municipal vehicles.

However, the development of the Rootes Company can be traced back to the village of Hawkhurst in Kent, where William Rootes Snr., ran a general engineering, and cycle manufacturing business. In 1898 he bought his first car and opened a motor sales section which, after the emancipation of the motorist, rapidly grew to dominate the business.

After the 1914-1918 War, his two sons, William (the late Lord Rootes) and Reginald, took over active control of the business, which was by then centred on Maidstone, formed Rootes Limited and transferred the headquarters to London.

By 1926, with offices and showrooms in Devonshire House in the heart of London's West End and branches in many parts of the country, they had created the largest motor distribution company in Britain, and probably in Europe.

The Rootes brothers were not, however, content to rest upon their reputation as salesmen of drive and imagination. It was a time when many famous and old-established vehicle firms were reeling under the impact of the introduction by British pioneers such as the late Lord Nuffield and by companies representing American interests, of new volume production methods which were bringing down prices and creating a new mass motoring market.

William and Reginald Rootes were convinced that with an injection of new ideas and manufacturing methods a number of these companies could be re-shaped to meet the demands of the volume-producing age. In 1927, they acquired an interest in the Hillman Car Company, and this was quickly followed by a similar interest in Humber Limited and the Commor commercial vehicle concern.

In 1931, the Hillman Wizard was ambitiously launched as a new quality family car for world markets – and the fact that it only met with limited success did not deter them.

During 1931, the Hillman Minx was introduced. It was an immediate commercial success and was to become a classic name in motoring history.

The commercial vehicle division also enjoyed its full share of expansion. Tilling-Stevens Limited had joined the Company in 1951 and its Maidstone Plant in Kent, was re-organised for the production of an entirely new Rootes diesel engine.

In 1953, assembly of commercial vehicles was concentrated at an entirely new plant at Dunstable, Bedfordshire, thus releasing additional production space at the parent plant a few miles away at Luton and permitting the development of wider model ranges.

Rootes export division grew with equal rapidity and further associate companies were established in key markets while overseas assembly operations were steadily expanded.

In 1960, the Rootes Board decided to embark upon another major phase of expansion involving the production of a new small family car (the Hillman Imp) with rear-mounted 875 cc aluminium engine.

Although intensely competitive, the world's small car markets had been growing steadily in importance and a new model was considered essential to make the Rootes car range – then extending from 1390 cc to 3 litres – fully competitive.

A site for the necessary additional plant was already available on land owned by the Company adjacent to its Dunstable factory. However, instead of utilising this site, Rootes were persuaded by the Government to undertake the establishment of an entirely new plant and organisation at Linwood in Renfrewshire as part of its programme for stimulating the economic development of this region of Scotland.

The project involved the construction of four main production blocks covering over one million square feet; the selection and installation of hundreds of the most modern machines in Europe; the planning and application of high-efficiency production techniques; and the recruitment and training of an entirely new labour force.

Keeping pace with this work was the construction of new roads, new railway and dock installations, new housing and the provision of power, water, gas and other essential supplies on a very large scale.

On 2nd May, 1963, H.R.H. the Duke of Edinburgh officially opened the new plant on schedule and

also launched the Hillman Imp, the first car to be produced in Scotland for more than 30 years, and the first British production car to have a rear-mounted engine or an aluminium power unit.

Since that date, the Imp range has been steadily widened.

Early in 1966, Rootes increased its investment at Linwood by a further £14 million by the acquisition of the former Pressed Steel Company plant which occupies an adjacent site.

Together, the two Rootes' Companies at Linwood employ some 8,500 people and incorporate the largest toolroom, press shop and painting and trimming facilities in Scotland together with an aluminium die-casting division which is unique in Britain.

This was very much a personal, triumph for the brothers especially as William Rootes had tested the prototype himself over thousands of miles in Europe and North Africa.

In the years that followed, other famous names such as the Sunbeam, Clement-Talbot and Karrier companies, together with smaller concerns, joined the Company – and by 1939 Rootes was firmly established as one of Britain's "Big Six" vehicle producers, which between them accounted for more than 90% of the industry's total output.

But although rationalising their production and integrating their activities, William Rootes and his brother took care to ensure that the identities of marques they took over were not submerged – and to this day the luxurious Humbers, the Sporting Sunbeams and the quality Hillmans retain distinctive personalities.

In 1939, all peace-time vehicle development was, of course, halted and the factories devoted entirely to war production. In fact, during the war, Rootes produced one out of every seven bombers made in the U.K. 60 per cent of the armoured cars and 30 per cent of the scout cars, as well as building 50,000 aero engines and assembling 20,000 vehicles imported from other countries.

After the War, the Company in common with the rest of the British Motor Industry, was called upon to make an extraordinarily rapid re-adjustment. Simultaneously it was necessary to undertake a complete new model programme, re-equip and re-organise the plants and create a world-wide sales and service network to assist the national export drive in which the motor industry was to take a leading role.

Both challenges were met promptly. In 1946, the Ryton-on-Dunsmore plant at Coventry which had been used for aero engine production during the war, was converted into a new assembly plant, releasing space for major expansion at the main manufacturing plant in Coventry, while the Aldermoor Lane Shadow Factory, also at Coventry was converted into an Engine Manufacturing Plant.

In the same year, in Melbourne, Australia, Rootes established its first overseas assembly plant. In 1947 marketing companies were also established in the United States, Canada and at strategic points in Europe to start organising the sales and service networks necessary to launch an export drive.

By this time the Company had also launched a major programme of expansion in its manufacturing plant, which between 1949 and 1954, doubled total output to just under 100,000 units a year – while exports rose dramatically.

This pace of expansion was steadily maintained and in 1963 total output had passed the 200,000 mark.

During this period, Singer Motors Limited with its range of medium-priced luxury cars, was integrated into Rootes.

In 1964, another major phase in the Company's development opened with the conclusion of an agreement with the Chrysler Corporation, one of the three leading vehicle producers in the United States, as a result of which Chrysler subsequently acquired 46 per cent of the Ordinary (voting) shares of Rootes Motors Limited, and 65 per cent of the "A" (non-voting) shares.

Explaining the Agreement, Lord Rootes (Chairman) declared:

"In view of the intense and increasing competition in the motor industry, both at home and overseas, it is a logical and desirable step in the future development of Rootes to become associated with a strong international organisation such as Chrysler.

"This association will be of obvious benefits in research, technical advances, production and other techniques. It will facilitate overseas development in many ways including dealer development and will be particularly advantageous in certain markets where overseas government action demands an increasing local manufacture and large capital expenditure."

As a consequence of the agreement, the technological and marketing expertise of Chrysler has been freely available to Rootes since August, 1964. Chrysler and its associated companies have been collaborating in both the manufacture and distribution of Rootes products in a number of important overseas markets and in the spheres of production design, marketing and manufacturing development.

Another by-product of the Agreement was the integration of the activities of Dodge Brothers (Britain) Limited, a Chrysler subsidiary manufacturing a range of trucks in Britain with the Rootes commercial vehicle operations.

In January, 1967, the Rootes Board reported that, in the light of this experience and the need for the continuation of a five year multi-million pound capital expenditure programme, an even closer association with Chrysler would benefit both Rootes and the national economy.

As a result, proposals were accepted by Rootes shareholders which provided for Chrysler, which acquired its initial stake in Rootes for approximately £27,000,000 to invest a further sum of up to £20,000,000.

The Chrysler Corporation now owns 83.2% of the total equity share capital and 85.6% voting rights in Chrysler United Kingdom Limited.

Chrysler's programme of investment and development has enabled it to develop a world-wide network of inter-related companies in which each company supports and is supported by every other in the Chrysler Group. This has created a truly multi-national corporation, in which each company can draw upon the experience and the skills and the resources of every other in developing its own business and reaching its own objectives.

Chrysler's investment in the United Kingdom is vital to this programme. Great Britain is a major trade centre for the British Commonwealth, a member of the European Free Trade Association, and a major exporter to other world markets, and therefore Chrysler recognise the success of the United Kingdom operations as absolutely essential to Chrysler's success as a multinational corporation.

#### 4 THE HISTORY OF COMMER – ONE OF THE OLDEST ESTABLISHED COMMERCIAL VEHICLE MANUFACTURERS

On July 1st, 1970, the name of Rootes Motors Limited was changed to Chrysler United Kingdom Limited. Changing the Company name gave Chrysler United Kingdom a greater international identity allying it even more closely to the third largest motor vehicle manufacturer in the World.

### 3.1 Notes on the Founders

William Rootes – the first Lord Rootes, was Chairman of Rootes Motors Limited until his death in December 1964.

His lifetime spanned that of the industry itself and he had taken an active and prominent part in nearly every stage of its growth.

As a small boy, he had observed its infancy from his father's cycle and motor engineering business in rural Kent. As a young man he became, during the industry's formative years, one of its most successful salesmen.

In the years of maturity, he played an historic role in its development as the creator – in partnership with his brother, Sir Reginald Rootes – of one of Britain's major motor manufacturing groups.

As the manufacturer of the original Hillman Minx, he fathered a classic model which was among the first medium-sized cars to bring inexpensive and economical family motoring to Britain.

As a pioneer car exporter, his efforts led to great prosperity for the industry and a huge source of revenue for the national economy.

During the War, he took on additional responsibilities such as the leadership of the Aero Engine Committee of the Aircraft Shadow Industry in the desperate days of 1940. In peace-time he was a tireless international ambassador for British Trade and also found time to make his impact felt in spheres as far apart as agriculture and education.

He was knighted in 1942 and created Baron Rootes of Ramsbury in 1951.

Upon his death, his elder son, Geoffrey Rootes, succeeded to the title and is now Chairman of the Company.

Sir Reginald Rootes was Chairman of the Company until his retirement at the age of 70 in 1967.

## 4 The History of Commer – one of the oldest established Commercial Vehicle manufacturers in Great Britain

Sales Promotion Department, Commer Cars Ltd., Luton, c.1963.

Ever in forefront of road transport development, Commer Cars Ltd. of Luton today produce a wide range of commercial vehicles for goods and passenger carrying purposes; all of them enjoying an enviable reputation in their different spheres, as may rightly be expected from the products of one of the oldest firms in the industry.

#### 4 THE HISTORY OF COMMER – ONE OF THE OLDEST ESTABLISHED COMMERCIAL VEHICLE MANUFACTURERS

The Company was founded as far back as 1905 when a group of pioneers made exhaustive experiments with the "Linley" gearbox. So successful were these experiments that a small syndicate was formed and a factory opened in Taybridge Road, Lavender Hill, London where the first commercial industrial vehicle was built – a 4 tonner with iron tyred wheels and upright steering.

It is worthy of mention that the Linley gearbox of over forty years ago had its change speed lever positioned just below the steering wheel; a position still favoured by certain car manufacturers. Furthermore, by virtue of its "pre-selection" of gear changes, the "Linley" gearbox anticipated the modern "Wilson" pre-selective gearbox of some twenty years.

At that time, of course, commercial motor transport was in its infancy but it was not long before these pioneers realised the vast potentialities of the commercial motor vehicle.

It is not surprising therefore, that in 1906 land was acquired on what was at that time the outskirts of Luton, and on this site a small factory was erected. These Works formed the nucleus of the extensive modern buildings which now constitute a conspicuous landmark to travellers on the main-line railway from St. Pancras.

With larger and properly equipped Works at their disposal, the Company developed its trade both at home and overseas. Business houses of repute gradually recognised the decided advantages of speeding up their delivery service by adopting mechanical transport, with a result that Commercial Cars Ltd. (as the concern was then styled) played a very prominent part in meeting the requirements of traders and industrialists.

In 1907 production commenced on the first Luton-built 'SC' type vehicle, which carried a 3 ton payload and employed a four-cylinder 'T' head engine developing 30 h.p., the final drive being by chains. About seven vehicles were manufactured and some sixty men were by now employed. It is interesting to recall that during the year, Commer won a Silver Medal in the first Commercial Vehicle Reliability Trials held, other competitors being Lacre, Dennis (assembling but not manufacturing), Thornycroft, Leyland (Steamers), Albion, and Hallford, the latter being built by J. & E. Hall Ltd. under licence from the Swiss firm of Saurer.

A year later the 'HC' four-cylinder 2 tonner and 'LC' two-cylinder 30 cwt. models were introduced. The 'HC' was the forerunner of the 'RC' 3-1/2 to 4 tonner which, with modifications and improvements continued to be produced until 1928.

In 1909 the first covered top double-deck buses were built, and the range of goods models now included the 'MC' 2 tonner and the 'YC' 3 tonner. These two new load carriers were of lighter construction and incorporated aluminium oil bath chain cases. During this year, five engines of various types, having as their basis the 'CC' and 'KG' models, were also introduced. The 'CC' and 'KC' models were originally rated at 4-1/2 and 5-1/2 tons respectively, and they were followed by the 'PC' model which was rated at 6-1/2 tons.

The year 1910 saw a further extension to the Luton Works and, in addition, the introduction of the first Commer live axle model, a 30 cwt. freighter known as the 'BC' type, and one powered by a 20 h.p. four-cylinder engine. Soon afterwards Commer produced their first "Torpedo" char-a-banc, of which type they claim to be the originators.

After developing their home markets, the Company decided on a vigorous appeal to overseas buyers,

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and a special study of conditions in various parts of the world was made by technical representatives sent out from Luton.

As a direct outcome of this research, vehicles were built to meet special requirements, among which, at that time, were orders of a certainly un-conventional nature. These included machines with 'straked' wheels for Patagonia; with power-hauling gear for New Zealand; and with steel tyres and hauling gear for Siberia. With vehicles shipped also to Australia, U.S.A., Canada and elsewhere, the popularity of Commer was now becoming wide-spread.

The Company's ramification rapidly extended, and in 1912-14 the range of vehicles manufactured comprised twelve models. This range covered load carrying vehicles from one to six tons, passenger carrying chassis for accommodating bodies seating from 16 to 36 passengers, and chassis designed for use as fire engines. A steadily increasing demand made it imperative for the factory to be further enlarged, until at the outbreak of War in 1914 its area had been doubled, and the productive capacity correspondingly increased.

The year 1914 witnessed the introduction of the '3P' live axle passenger model which was considered well in advance of its time, but the War intervened and the new vehicle was not put into production until 1919. In addition, a 3-1/2 ton W.D. Subsidy chassis which had been designed in 1912 and which had completed its acceptance trials in 1913 was now manufactured to meet the requirements of the W.D. Subsidy Scheme. Interest is attached to this model by reason of the fact that the engine embodied plain bearings instead of the usual ball bearings, while the rear axle was of the double reduction (bevel and spur) type.

By this time a 'boom' period had been reached and Commer's called on Hillmans and Dormans for assistance, the first engines produced by Dormans being of Commer design and pattern. Many types of vehicles were now being manufactured including Buses, Char-a-bancs, Fire Engines, Water Carts, Hand and Mechanical Tippers, together with various fittings such as hoists, hauling gear, etc.

When War was declared all the chassis then ready for delivery, as well as those in various stages of construction, were commandeered by the Army and the Company was instructed to concentrate upon the production of one type of chassis, the 'RC' 4 ton chain-driven type of which some 5,000 were supplied. It is not without justification to say that they fully maintained the reputation which Commer had by then achieved. Peak production was reached in 1916 when, with 1,000 men employed, the output topped 640 vehicles. A further extension to the factory was made necessary to accommodate Drawing Office, Receiving Store, Gear Cutting Section, and General Stores.

At this juncture it is interesting to recall the adventures of one particular Commer during the first Great War. A German convoy, captured by the British on the Western front was found to include a Commer lorry. Its appearance in these circumstances being somewhat un-accountable, enquiries were instituted which proved that the vehicle was one supplied to the Russian War Office in 1912. It had been used by the Russians in their operations in East Prussia, was captured by the Germans and transferred by them for service in France, where after a period of use, it fell into the hands of the British, who, in turn, employed it against the enemy.

After the conclusion of hostilities, the Company was faced with the difficult problem of re-establishing a commercial business which had practically disappeared. However, a comprehensive range of models comprising vehicles of from 2 to 10 tons carrying capacity was gradually evolved. The '2G' live axle model eventually superseded the 'MC' and 'YC' chain-case models. Some 400 were put into

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production but they did not sell as rapidly as anticipated and the slump came. At first the heavier models were fitted with chain transmission – a form of final drive of which the Company had always been an exponent – but in conformity with the modern trend of design it was gradually replaced by worm drive. In addition, round about this period the "Thomas" gearbox was being developed, but it did not completely supersede the "Linley" box until about 1926.

As a result of the continued slump, a Receiver and Manager was appointed in April 1922. In 1926, however, a new epoch in the firm's development began, for negotiations were then concluded for the sale of the business to the famous Coventry firm of Humber Ltd. The results of this amalgamation were almost immediately reflected in price reductions, which acted as a great stimulus to the Commer business.

During the period 1926-29 many notable mechanical improvements were made and further new models were announced. As an example, a new plain bearing four-cylinder engine with pressure lubrication was designed and developed by Luton engineers. It was available in two sizes, 105 mm. or 110 mm bore by 140 mm stroke. The larger unit developed 90 b.h.p. at 3,000 r.p.m., a remarkable achievement in those days for an engine rated at 30 h.p. New models included a range of live axle chassis with worm drive. They were the '3PC' for 3 ton loads, one which retained the torque tube system for the drive, and the '3G' and '4G' (4 ton) which employed the 'Hotchkiss' system of taking the drive through the rear springs.

A passenger model known as the '2P' (MT), designed exclusively for operation on pneumatic tyres, was introduced and it accommodated 20 and 50 seat omnibus bodies for wheelbases of 14' 6" and 16' 0" respectively. A four-cylinder ball-bearing engine (115 mm x 140 mm) was originally fitted but on its replacement by a plain bearing engine the model was designated the '4PW'. At a later stage a forward control version known as the '4PF' was introduced.

Goods carrying chassis were powered with the new plain bearing engine. They were known as the '2-1/2 GN' (2-1/2 ton), '3GN' (3 ton), '4GN' (4 ton) and '5GN' (5 ton), and all were worm driven and fitted with the "Thomas" gearbox.

In 1927 a 30 cwt model with the "Humber" 15.9 h.p. four-cylinder engine and gearbox was placed in production; and fitted with pneumatic tyres it became fairly popular. Special passenger models, four or six wheelers with normal or forward control, were designed and built. Designated 'H4', 'F4', 'N6' and 'F6' they accommodated bodies with seating capacities of 26 or 32 passengers according to type, but only a limited number were produced.

The next big event in Commer history was the taking over of the concern by Rootes Securities Ltd. This occurred in 1928 and, very shortly afterwards, greatly increased activity in the factory became apparent. With the strong Export Division which accompanied the Rootes merger, and the considerable strengthening in Home distribution, to say nothing of the fact that the finances of the Company were put upon a thoroughly stable basis, the name Commer became more and more in evidence.

In the following year a modified form of the "Humber" 6-cylinder "Snipe" engine was used to power a new light 20 seat passenger vehicle – the "Invader". This power unit embodied in unit construction a new gearbox with "silent third" helical gears. A similar power unit was employed in a 2 to 2-1/2 ton goods model known as the 'G2'.

Later a new six-cylinder engine designed by Luton engineers was introduced. It has a bore of 105 mm

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and a stroke of 140 mm and developed 105 b.h.p. This unit was installed in a new passenger chassis – the "Avenger" – to take 52 seat single-deck and 50 seat double-deck bodies. It was also used for a goods chassis to carry up to the maximum permissible gross loading for a four-wheel chassis of 12 tons, so permitting pay loads of about 6-1/2 tons. Correct axle load distribution was obtained by locating the front axle entirely behind the engine. Although only small numbers were built, both models were entirely successful.

In 1950, goods models were improved in detail and re-christened 'G3', 'G4', and 'G5'. Two years later these models were given the appellations 'GL3', 'GL4' and 'GL5', being of lighter construction and available also as forward control models. Pneumatic tyres were standard and four-wheel brakes could be fitted at extra cost.

In substantiation of the great advantages accruing from co-ordination of resources and production facilities under the Rootes regime it may be mentioned that the selling price of the "Raider" 1-1/2 tonner introduced in 1931 showed a reduction of well over £100 in relation to the price of the 30-cwt model previously produced.

The first Combined Convention of the newly formed Rootes Group to announce their new model cars and commercial vehicles took place at Coventry on September 27th, 1932 when the Humber-Hillman-Commer programmes for 1933 were announced to Trade and Press. This was a great display and the L.M.S. Railway rose to the occasion by arranging for the two special trains from Euston to set up a new speed records both on the outward and return journeys. This they did handsomely – the best time being 83 minutes for the 94 miles!

Further new types were introduced during the period 1932-1935, these including the "Centaur" 2 tonner which together with the "Raider" enjoyed outstanding popularity. 1933 saw the end of the worm driven series of goods models in the 3, 4 and 5 ton chassis and the introduction of a light 3 tonner, the 'B3', developed from the 1-1/2 ton "Raider" and 2 ton "Centaur" range. These lighter machines were inspired by the demand for vehicles to operate with maximum load at 30 m.p.h. and in the £30 a year tax class.

It is not without interest that in late 1931 the Rootes Group acquired the old established business of Karrier Motors Ltd., Huddersfield, and the transference during the following year of this organisation to Luton resulted in a strong and virile commercial vehicle combination being formed. The Luton factory was further extended and modernised and an entirely new range of trucks known as the Commer "N" series was introduced. This covered vehicles from the nippy 8 cwt delivery van to the sturdy 'made-for-the-load' 5 tonner with a maximum unladen weight of 2-1/2 tons, and production on an ever increasing scale continued until 1939 when the new "Superpoise" range was announced as Commer's greatest achievement in 34 years of colourful history.

This range – five distinct models ranging from to 6 tons – had special distinction since it possessed to a degree never previously achieved, the time-tested virtues of both normal and forward control. The consummate success with which the Luton designers co-ordinated into one unit the attractive characteristics of hitherto distinct types represented a most important step in commercial vehicle development and was indicative of Commer's progressive spirit. The name "Superpoise" was inspired by the well balanced loading conditions of all models in the range which were offered with petrol or diesel engines to choice. Furthermore, by virtue of alternative wheelbases being available a wide variety of bodywork styles could be accommodated.

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Such was the success that attended these new models in all branches of industry that it was found necessary to make yet another extension to the Luton factory, and with the object of further speeding up production many improvements were made to existing plant. At a cost of many thousands of pounds there was complete re-organisation of the Assembly Shop, construction of a new Stove Enamelling Plant, and the installation of more modern machinery. This completed, the Company's extending business could be looked upon with equanimity, since production facilities were now equal to the heaviest demands.

Then came the second World War, and it was indeed fortunate, in more senses than one, that the Commer-Karrier factory at Luton had previously commenced to manufacture certain types of military vehicles known to be favoured by the Army, Navy and Air Force, for it enabled valuable experience to be placed immediately at the disposal of the Government, and September 3rd 1939 saw the factory fully prepared to co-operate with the authorities in the fullest possible way and for plans covering the accelerated production of special type vehicles to be made effective.

The success with which these plans developed through the years of war is indicated by the manufacture of upwards of 20,000 Commer vehicles – to say nothing of a further 10,000 Karriers – ranging in size from the small 15 cwt load carriers to the sturdy "Superpoise" 4-5 tonner, modified to give a reliable cross-country performance and which in tractor form hauled the R.A.F.'s sixty-foot "Queen Mary" trailers on many battle fronts.

With victory, came the gradual 'change over' to production for civilian usage. A comprehensive programme was planned – ranging from the small 8 cwt van to the large articulated 8 ton "Commer-Hands" tractor-trailer – and the early months of 1946 saw a great change in the types of vehicle leaving the dispatch shop of Commer-Karrier, for the cross-country treads and camouflage of wartime products quickly gave place to smart 'commercials' in civilian dress and colours, and from their appearance it was evident that, as in pre-war days, clean design and sturdy build were to be the outstanding characteristics of Commer trucks in post war years.

Lessons learned and the invaluable knowledge acquired during six years of war were applied to the further advancement and performance of post-war vehicles, and by virtue of these improvements they approached a new peak in both conception and workmanship.

In 1948 an entirely new range with 'under-floor' engine was introduced, embodying porous chrome cylinder bores, a feature since proved to extend periods between overhauls to a startling degree. Available as a coach, 5 or 7 ton load-carrier or 10-12 ton articulated unit, many of these models have covered nearly 400,000 miles with negligible mechanical failure – truly a remarkable achievement.

Then, in 1953 a new, attractive 1-1/4 ton forward control van was introduced, and to complete the range two 'Pick-Ups', the medium Duty 'Pick-Up' – hitherto available only on the export market – and the Light 'Pick-Up', based on the ever-popular Express Delivery Van were offered.

An idea of the remarkable increase in production that took place at the Luton factory can be gained when it is stated that 215 per cent more vehicles were produced in 1953 than in 1938-9. To expand still further the activities of Commer Cars Limited a new £1 million assembly plant, covering 100 acres, was started in 1953 at nearby Dunstable to additionally consolidate the prominent position enjoyed by the Company in world markets.

The work was completed in 1954 and production began in the large, modern factory and by 1955 the

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assembly of all Commer and Karrier vehicles was concentrated in the new Plant. On October 21st 1955, coinciding with the 50th anniversary of Commer Cars Limited, the last vehicle came off the assembly line at Luton. The space made available in the main assembly shop at Luton was replanned to give better working conditions with a consequent increase in production, and is now used solely for the production of rear and front axles.

In 1955 a new range of Commer 'Superpoise' six cylinder models of 2-3, 3-4 and 5 tons capacity were announced. The striking feature of these models was the new, comfortable 'full-view cab. The same year a new range of four-cylinder o.h.v. 'Superpoise' models was introduced. This range consisted of a ton 'Pick-Up', and 3/4 and 1-1/4 ton vans.

1956 brought several new Common models and improvements of others. In February a new 7 cwt van was announced – the Commer Cob'. This light van combined the comfort of a private car and the versatility of a service vehicle. Powered by a four-cylinder side valve unit the impressive new van with its low fuel consumption, low maintenance costs and all round reliability soon became a firm favourite with the tradesmen and pleasure seekers.

Later that year there were several simultaneous announcements. A new de-luxe cab was introduced for the ton 'Pick-Up'. A new range of diesel engined tractors were announced, the models being a Commer-Scammell automatic coupling 10 tonner, a Commer-SAE-SMMT fifth wheel 10 tonner and Commer-SAE-SMMT fifth wheel 12 tonner.

The economic, powerful and popular Rootes Diesel was introduced as standard on all these models. At the same time a new four-cylinder light diesel engine was introduced for Commer 3/4 and 1-1/4 ton models.

In 1957 it was decided to design a new forward control 5 tonner and in April the new vehicle was announced. The aim of this new model was to produce an economical truck in accordance with popular demand, in which it surely succeeded.

January 1958 brought another improvement to give even more satisfaction to the countless satisfied Commer users, for the 'Cob' light van, well established as a first-class vehicle, was fitted with a new four-cylinder o.h.v. power unit and increase in body space.

In May 1958 the Commer-Unipower 10-ton Forward Control six wheeler was introduced. Based on the popular Commer 7 ton Forward Control 13ft. 6in. wheelbase model its power unit was the phenomenal Rootes Diesel engine. It soon found a ready market and proved a complete success both at home and abroad. Two months later saw the addition of another model to the 'Superpoise' range. A new 14ft. 1in. wheelbase 6 tonner, with a choice of a 91 b.h.p. petrol engine, a 83 b.h.p. Perkins 'P6' diesel engine or a 104 b.h.p. Perkins 'R6' diesel engine as a power unit.

September of the same year, at the Earls Court Commercial Motor Show, brought announcements of new and improved models from Commer Cars Ltd. which rocked the commercial motor industry. These new announcements included a new medium diesel engine, a new five-speed gearbox, a new ultra-modern cab, a new range of 4, 5 and 6 ton forward control models and improvements on the Express Delivery Van and the 7-12 ton Forward Control range. The new Commer Medium diesel engine was a six-cylinder o.h.v. unit of the Perkins C.305 design developing a gross b.h.p. of 87 at 2,400 r.p.m. and a torque of 216 lb.ft. at 1,300 r.p.m. This economical, robust diesel soon took its place alongside the already famous Rootes diesel and Commer light diesel engines in a class of their own for

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economy, reliability and long-life.

The new all-steel cab was designed to afford superb driver comfort. A deep, wide one-piece windscreen gave panoramic vision and the headroom was increased over the previous model. The driver's seat was adjustable both in a vertical and horizontal rake. Its appearance was further enhanced by a new grille extending to each side to include the headlamps. The five-speed constant mesh gearbox, available as a production alternative on the Commer 7, 10 and 10-11 ton forward control and 'Avenger' models and fitted as standard on 12 ton forward control tractor, had a series of close ratios with five forward speeds and one reverse giving a much higher vehicle performance.

The ever popular Express Delivery Van was fitted with a new four-cylinder '1500' o.h.v. "over-square" engine with a gross b.h.p. of 49. The suspension was also improved by the addition of an anti-roll bar.

The 7-12 ton Forward Control range were fitted with the new cab.

These new models greatly impressed both the press and operators. Already they are enjoying a high reputation as solid, reliable vehicles.

April of 1959 brought the introduction of the 1-ton f.c. van. Similar to the 30 cwt. f.c. van, but with a shorter wheelbase, the 1 tonner has a special appeal to the retail trades with its cubic capacity of 280 cu.ft. Later that year saw a new development of the Rootes two-stroke diesel engine. With a few easy-to-perform modifications this engine was adapted to run on several fuels including gas oil, regular gasoline, military gasoline (80 - 86 octane), kerosene base fuels and jet fuels JP3 - JP4 and JP5. Although primarily for military use it is also of particular importance to civilian operators where certain fuels are not always readily obtainable.

So we come to the latest of a long line of new ventures on which this company has marked. January 1950 marks the launching of an entirely new line of Commer models, the 3/4 ton 'FC' Range. Months of preparation, including, extensive trials and tests were undergone before production began. The Dunstable factory was extended to incorporate a new assembly area dealing solely with the production of these new models. The range included several derivatives of the basic model including the standard vans with either hinged or sliding doors, a light bus, contractor's bus, station wagon, ambulance, bakers van, gown van, bottle-float, pick-up and even a luxurious caravan. Specifically designed to meet the wide demand for this type of vehicle, sales were high from the very start. The new range was soon to be seen throughout Britain and proved to be highly successful in the Export market. In the first 8 months of 1960 alone the sale of Rootes Group commercial vehicles increased 77%. A tribute to the fine qualities of our products.

A Series II light Cob van was introduced in March, incorporating improved visibility and a new four-speed close ratio gearbox. The 'Superpoise' too, provided greater driver comfort when, in April cab space was increased and improved seating fitted.

In May 1961 the Perkins 6.354 direct-injection. 108 b.h.p. engine became the sole diesel engine alternative in the 'Superpoise' 5 and 6 ton models and the forward control 4, 5 and 6 ton range. Features of this engine are increased power, economical running, and easier starting. It was available in two versions vertical for the 'Superpoise' and horizontal for the forward control models. The 4 ton forward control engine was rated at 97 b.h.p. Other highlights of the models included a four-speed synchromesh gearbox, increased braking capacity and revised rear-axle ratios.

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The Commer 'Walk-Thru' range introduced in October 1961, was designed to answer the problem of continuous stop-start work in urban traffic. Marketed primarily as a 1-1/2 ton or 2 ton all-steel van of 350 cu.ft. capacity, all models are available in chassis-cab or chassis-front end form for accommodating other styles of bodywork. The model's un-conventional design reduced driver fatigue, increased loading and un-loading efficiency and effected a substantial reduction in operating costs. The 1-1/2 ton model was available with 123 in. wheelbase, the 2 ton model with either 123 in. or 135 in. wheelbase and the 3 ton model with 135 in. wheelbase. For each model a choice of either a four-cylinder 56 b.h.p. petrol engine, a six-cylinder 85 b.h.p. petrol engine a 56 b.h.p. four-cylinder light diesel engine or a four-cylinder 63 b.h.p. Perkins 4.203 diesel engine.

In the same period the 3/4 ton f.c. range Series II was announced, incorporating improved styling and a larger capacity, 1,592 cc o.h.v. petrol engine. A twelve seater P.S.V. model was also added to the series.

In March 1962 Commer introduced two completely new heavy-duty load carriers, namely the 7-1/2 and 8 ton f.c. models, incorporating an extra-wide luxury cab of new design and superlative styling. A novel feature was the dual-headlamps which removed much of the strain of night driving. The 10, 11 and 12 ton tractor models were also modified by the introduction of the new cab, braking system and re-designed and re-positioned silencers.

In August 1962, Commer Cars Ltd., again collaborated with Universal Over Drives Ltd., and produced two new 'Unipower' trailing six-wheelers. Based on the new 7-1/2 ton 13ft. 6in. wheelbase and 8 ton 15ft. 7in. wheelbase chassis, both models were powered by the Rootes diesel engine and had gross vehicle weights of 15 and 17 tons respectively.

Although essentially conversions, the various units were so integrated that it was practically impossible to distinguish them as such, moreover Commer standard components were incorporated in the extensions wherever possible. Hydraulic brakes were either 'Hydrovac' or 'Airpak' assisted dependent on the model, whilst power-assisted steering was applied to both.

September 1962 saw the introduction of two completely new four-wheel drive cross-country models that Commer Cars Ltd. produced in conjunction with All Wheel Drives Ltd. These models were available on two wheelbases – 12ft. 0in. or 14ft. 1in. – with a gross vehicle weight of 18,000 lb and powered by either the Commer six-cylinder 125 gross b.h.p. petrol engine or the 6.354 diesel engine developing 108 gross b.h.p. The finishing touch to these vehicles was supplied by roomy and comfortable 'Superpoise' cab whilst exceptionally smooth and positive control was provided by heavy-duty "Marles" cam and double-roller gear steering.

October 1962 Commer met the demand for vehicles with a big payload yet compact overall dimensions by announcing the new '2500' Series range. These vehicles had the same external appearance, dimensions and capacity as the popular 3/4 tonner but were built to carry a full 1 ton payload with reliability and economy. Powered by the same petrol and diesel engines that so largely contributed toward the popularity of the 3/4 tonner, this new range was enhanced by a silent four-speed synchromesh gearbox, semi-floating hypoid bevel rear axle, hydraulically-damped front suspension and powerful hydraulic brakes.

In February 1963 the long-lived and famous 4, 5 and 6 ton forward control range ceased to exist and was replaced by the completely new 4, 5, 6 and 7 ton forward control range that contained many revolutionary features. No less than four engines, two petrol and two diesel, were available. The cab

was of new design and available in single or double form and not the least of the other features that highlighted this range were alternative wheelbases, power-assisted brakes, varied wheel applications – nylon tyres for long life, etc. A notable characteristic of each model was the amazing ease of servicing and frontal access to the engine. This was made possible by the detachable large grille panel in the front end which, when removed, exposed the engine completely.

## 4.1 Milestones

1905 Commer Cars Ltd. formed in London.

First commercial industrial vehicle built, one embodying the "Linley" gearbox.

1907 Chain-driven 'SC' type 3 tonner marketed.

1909 First covered top double deck bus produced.

1910 First live axle model designed.

1911 'Torpedo' type char-a-banc bodies introduced.

1912-14 3-1/2 ton chassis designed to meet the requirements of W.D. Subsidy Scheme.

1914-18 Some 3,000 W.D. vehicles manufactured.

1926 Commer acquired by Humber Ltd. and fresh progress began.

1927 Introduction of 30 cwt. pneumatic tyres chassis powered by "Humber" four-cylinder engine.

1928 Commer taken over by Rootes Securities Ltd.

1929 New six-cylinder engine designed by Luton Engineers and installed in "Avenger" 32 seat single decker and 50 seat double decker; also fitted to 6-1/2 ton goods chassis.

1933 lightweight 3 tonner produced to come within 30 m.p.h. £30 tax class.

1935 'N' series models (15 cwts. to 5 tons) introduced.

1939 "Superpoise" range of vehicles (30 cwts to 6 tons) introduced.

1939-45 some 20,000 Commer Military Vehicles of varying types delivered to Services.

Jan. 1948 Introduction of entirely new 5 and 7 ton forward control models with o.h.v. underfloor engine (109 b.h.p.).

Dec. 1949 Introduction of Commer Fire fighting Appliance.

Sep. 1953 Introduction of new 1-1/4 ton all-steel f.c. van.

May 1954 the new 'TS3' diesel engine was introduced. in the "Avenger" passenger model

September 1954 TS3 offered in the 5-12 ton forward control goods vehicles range.

[There is a longer version of this list]

## **5 A brief History of Karrier Motors Ltd. – outlining their Progress and Activities in the Commercial Motor Vehicle Industry.**

Sales Promotion Department, Karrier Motors Ltd., Luton c.1961

Since the formation in 1907 of the original company from which Karrier Motors Ltd. was developed, the firm has been engaged continuously in the manufacture of motor vehicles of the goods, passenger and municipal types.

The first Karrier vehicle – a 50 cwt. lorry with 18 h.p. two-cylinder engine – was designed in 1907 by the late Mr. R.F. Clayton and built in the following year by Clayton & Co. (Huddersfield) Ltd.

Originally, there was one small shop alongside the River Colne within a mile from the centre of Huddersfield where component parts were machined and chassis assembled, and it is interesting to learn that the total number of employees at that time was 35.

The first twelve months marked the experimental stage and the following year 1909 saw the construction and delivery of 15 vehicles, some of which gave excellent service for more than twenty years.

Following extensions and an increase of employees, deliveries in the third year increased to 46 which included vehicles of from 20 to 80 cwts. capacity, and among them were models fitted with Omnibus and Char-a-banc bodies.

Whilst the smaller models were powered with two-cylinder engines developing up to 20 b.h.p., the larger incorporated four-cylinder engines giving up to 30 b.h.p. Both types had magneto ignition.

These early Karrier models had three forward speeds, were chain driven and ran on solid rubber tyres. In some cases driver was positioned behind engine whilst in others, the open driving cab was placed above the engine thus giving more body space and pioneering the way for the now popular type of vehicle with full forward control.

The passenger carrying vehicles delivered in these early years were of the boneted type. Chassis were identical with the goods-carrying type and whilst their comfort was not comparable to present day standards they were extremely popular with the public – primarily for local outings previously undertaken by horse-drawn char-a-bancs.

Incidentally, a Karrier 50 b.h.p. char-a-banc with a full load of 21 passengers was the first motorised public service vehicle to climb the then dreaded Porlook Hill in North Somerset. This was on 3rd June, 1914.

The day of the municipal and rural bus service had not yet dawned and in the larger towns and cities the noisy tramcar still held 'sway'.

In 1913, a 3-4 ton lorry was designed to comply with the War Department's Subsidy Specification,

and along with a number of other leading makers' vehicles it took part in the trials held in October of that year by the War Office. Oil and petrol consumptions, accessibility, speed and hill climbing capabilities were special features of these trials, and as a result of the performance of the Karrier lorry, Clayton & Co. (Huddersfield) Ltd. were awarded a Subsidy Certificate.

A number of these subsidy lorries were ordered by the War Office, and by a fortunate coincidence were ready for delivery when the First Great War commenced in August 1914. The next four years saw very great activity on the part of the firm, for upwards of two thousand 4 ton lorries were turned out for the Government during this period, in addition to a considerable number of components for Tanks.

Rapid developments took place following the Armistice in 1918, and two years later Karrier Motors Ltd. with Mr. H.F. Clayton as Chairman and his son, Mr. R.F. Clayton, and Mr. H.W. Hattersley as Joint Managing Directors took over the business established by Clayton & Co. which was transferred to new and substantial works not far from the centre of Huddersfield. This new home – Karrier Works – covering an area of approximately ten acres was systematically arranged with a view to economic production and gave employment at the peak of its activities to well over a thousand persons.

About this time, the Karrier range of models expanded considerably and much pioneering work of great value was undertaken. On the municipal side attention was given to perfecting a street sweeping and collecting machine, and refuse collecting vehicles of various types were evolved. These models were well received by officials in the Public Cleansing World and were instrumental in effecting great economies in municipal expenditure.

Karrier were also British Pioneers of the rigid-frame six-wheel type of vehicle both for passenger and goods transportation, and apart from the fact that a great many of our leading municipalities operated single and double-deck minibuses of the six-wheeled type with every success, the remarkable ability of the goods model six-wheeler to traverse rough and broken country quickly and without detriment to its own mechanism, resulted in the acquisition of machines of this description in large numbers by Government departments and private users both at home and in distant parts of the Empire.

The first Karrier rigid-frame six-wheeler of the goods carrying type was built in the latter part of 1924, and in February 1925 it was severely tested by the War Department at Wool in Dorsetshire, where its amazing performance over broken country was viewed with great astonishment.

It should be noted, incidentally, that two standard medium capacity Karrier six-wheelers had the distinction of being the first goodscarrying vehicles to encircle the vast continent of Australia, a distance of approximately 11,000 miles. During this journey through undeveloped, wild and trackless country, hundreds of miles of sandy wastes were crossed, whilst mountain ranges and endless miles of roadless country never previously attempted by heavy vehicles also had to be traversed, but it is noteworthy that the sturdy Karrier vehicles – pushing along at an average rate of 500 miles a week for 22 consecutive weeks – ran to schedule throughout!

The valuable experience gained at this early date resulted in a passenger carrying six-wheeler being designed and constructed and the single-decker Super Safety Six-wheel Coach exhibited at Olympia in November 1925 – the only example of its type shown – proved to be a great centre of attraction.

During the next two years rapid development took place in the six-wheeler field, municipalities in particular taking a keen interest in the passenger models which afforded riding comfort far superior to that of the four-wheelers then available, and during this period the municipalities of Huddersfield,

Liverpool, Edinburgh, Salford, Leeds, Portsmouth, Birmingham, Halifax, Blackpool, Oldham, Manchester, Wallasey, Sheffield and Wigan took delivery of single and double deck Karrier six-wheelers, the latter type accommodating up to as many as 66 passengers.

Following the success of the Karrier six-wheel omnibus in municipal service, attention was turned to the electrically propelled vehicle, and with the collaboration of an old-established firm of electrical engineers, Clough, Smith & Co.Ltd. of London, a six-wheel double-deck Trolleybus was designed and placed on the market in 1928.

This vehicle, known as the Karrier-Clough "E6" model, possessed all the comfort and mobility of the motor omnibus and enabled those municipalities, who by force of circumstances were having to abandon sections of their existing tramway routes, to utilise the overhead equipment and preserve the load on their electricity generating stations.

Six of these double-deckers purchased by Doncaster Corporation in 1928 were the first Karrier Trolleybuses to be placed in service and were the forerunners of the now considerable trolleybus fleets operated by municipal undertakings throughout the country. Incidentally, up to the outbreak of War this progressive South Yorkshire town's fleet of trolleybuses had increased to over forty, all but one being of Karrier manufacture.

Increasing interest was at this time being taken in the commercial vehicle for passenger transportation and the mobile omnibus was beginning to play a most useful and important part in the everyday life of the community.

Concentration on the six-wheeler had not hindered Karrier enterprise in other directions, and in 1928 an entirely new range of passenger carrying vehicles – three four-wheelers (Cutter, Coaster, Chaser) and two six-wheelers (Clipper and Consort) – accommodating from 20 to 68 people was placed on the market and met with immediate response. Complying in all respects with the then new Ministry of Transport Regulations and designed specifically to give the utmost satisfaction under all conditions of service the new vehicles were amply powered, luxuriously sprung and incorporated brakes of greater efficiency than had previously been the case.

Each chassis embodied automatic chassis lubrication, and of particular interest was the fact that in the largest vehicle in the range, the "Consort" 68 seater, a single sleeve valve type of engine, tested and developed by Karriers during previous years, was fitted. This engine, which had a high thermal and mechanical efficiency, developed exceptionally high power without noise or vibration and carried all its auxiliaries in easier-to-getat positions, and its introduction to the Karrier range of power units was yet another instance of the firm's determination to advance on lines or progress.

To this range a further four-wheel model – the "Monitor" 50 seat double-decker – was added twelve months later. Experience had shown that for a large capacity omnibus operating on a route of high traffic density the six-wheeler was much the better type of vehicle – due regard being paid to axle weights and the proper provision for overloading – but many operators preferred the more normal type of four-wheeler when considering the transport of smaller numbers of passengers and it was to supply this demand that the "Monitor" was introduced.

About this time (1929-30) further valuable pioneering work was undertaken by Karrier Motors Ltd. as instanced by the introduction of (a) Vehicles equipped with gas producer plant and (b) the Karrier "Road Railer".

The former embodied equipment developed by the Compound Gas Power Co. Ltd. of Reading. Designed to use vegetable fuels only of which raw wood was the chief, the plant operated equally well on maize cobs, nut shells, charcoal, cotton seed, rice or padi-husk, and was thus particularly suitable for overseas use in districts where any of the above named fuels were plentiful.

The unique design of the latter, the Karrier “Road Railer” was such as to permit a vehicle – goods or passenger – to travel with equal facility on either road or rail.

Officials in the railway world and manufacturers had long been interested in the possibilities of such a machine but this was the first successful attempt to combine in one vehicle the advantages of rail haulage together with the benefits of the road vehicle in being able to collect and deliver from “door to door”.

The design was such that at any level crossing, or at points where a surface level with the tops of the rails was provided by means of filling, in with sleepers and ballast, the vehicle was able – without the need of special equipment other than that incorporated in its design – to run direct from road to rail, and in less than five minutes was able to proceed on its rail journey, where speeds in excess of those obtainable on the road where, in complete safety, possible.

Vehicles of both the passenger and goods carrying types which were supplied for service both in this country and on the continent attracted world wide attention and many enquiries were received by its originators, not only from railway engineers in both hemispheres, but also from people interested in all classes of industrial transport.

Another “landmark” in the history of Karrier Motors Ltd. was the introduction by them in June 1930 of the now well established “Mechanical Horse” – a three-wheel tractor designed specifically to meet industry’s need for a suitable motor vehicle to replace the horse for cartage work.

Up to its introduction, the only machines available were those designed and built for running considerable mileages at reasonably high road speed, and these, whilst proving ideal for the transport of goods over long distances, were definitely un-suitable for multitudinous collections and deliveries in localised areas.

It was well understood that the ideal conditions making for maximum economy in normal motor transport operation were those in which the vehicle or vehicles could be kept regularly running on the road throughout the whole working day under full load, the mileage not being unduly reduced by frequent stoppages for any cause, or by reason of long periods spent loading or un-loading.

But the collection and delivery of goods as distinct from their transport, introduced conditions quite different from the ideal, and prior to the advent of the aptly named “Cob”, horses proved to be more useful and economical for this particular class of work than the then existing types of motor vehicle; this in spite of the farmer’s slow speed, and the acute traffic congestions which their pressure on crowded town streets caused.

Times and science gradually closed in on these four-footed toilers, however, and with the advent of the Karrier “Mechanical Horse” there became available a motorised alternative which, for mobility, speed, and cost of operation literally left poor old “Dobbin” standing.

The Railway Companies – always large users of the horse – were the first to try out the new “wonder”,

and following them came a host of industrial and municipal operators, who found it to be a great economy factor in the transport of their medium capacity loads.

In its initial form, the "Cob" – an extremely manoeuvrable three-wheel tractor employed in conjunction with quickly-detachable trailers or converted draws – was produced with a 7-17 h.p. engine and was capable of dealing with loads of from two to three tons.

Following upon its success both in the hands of railway and industrial users, there came a demand for a similar type of machine for dealing with greater loads, and as a result, a practically identical vehicle incorporating a more powerful engine, having increased speed and a greater range of operation, was placed on the market for dealing with loads of up to six tons.

Numerous instances occurred where firms using normal type motor vehicles for dealing with their localised transport tasks found operating costs to be so great as to be almost prohibitive, but by employing the "Cob" tractor-trailer combination they were able to handle their "inner-zone loads easier, quicker, and at much lower cost, whilst at the same time they were able to release their long distance vehicles for more profitable traffic.

Side by side with the developments above referred to, Karrier were building up and maintaining a pre-imminent [sic] position in the municipal vehicle field, producing a wide variety of vehicles for cleansing purposes among which possibly the original Road Sweeper and Collector previously referred to is the best known. Together with the more nominal types of refuse collector and gully emptier, the Karrier "RSC" Sweep Collector is being used by progressive municipalities all over the world. It affords unequalled service by virtue of the high standard of engineering practice applied to its construction and the many patented features embodied in its design. In a simple sequence of operations under the immediate control of the driver the "RSC" model damps the surface of the road, sweeps up the refuse and collects it into the body of the machine and later transports the collected refuse to the dump, covering and cleansing some 30 track miles of street in the course of an ordinary day's work.

Following full development of the "Cob" the Karrier concern was acquired by Routes Securities Ltd. in August 1934, and thus became associated with the Routes Groupup of companies, Humber, Hillman and Commer.

To facilitate economic production it was found desirable in July of the following year to transfer production of Karrier vehicles to the Luton factory of Commer Cars Ltd. which, to allow vehicles of the two 'marques' to be manufactured side by side, was enlarged considerably.

Design revisions enabled standardised Commer components to be incorporated in many Karrier models, the economies thus effected reducing to a minimum overhead and manufacturing costs, and enabling greater headway to be made in the overseas market where the Routes Associated Companies, particularly strongly entrenched, exported some 25% of vehicles produced.

Apart from Trolleybuses which had become an important phase of Karrier's business it was decided to cease the manufacture of passenger carrying vehicles and concentrate on goods and municipal vehicles.

Trolleybuses continued to be built at the Huddersfield works of Karrier until the acquisition of Sunbeam Commercial vehicles by Routes Securities Ltd. when their manufacture was transferred to the Sunbeam factory at Wolverhampton where the four-wheel and sixwheel types which had become well represented throughout the country continued to be built.

At Luton, up to the outbreak of war in September 1939, Karrier produced a wide range of specialised products including goods transport vehicles of from two to six tons capacity and municipal motor appliances of diverse types. The wealth of a considerable experience was successfully blended into their newly marketed models and as a direct outcome had as their chief characteristics, dependability, economy of operation, manoeuvrability, and as may rightly be expected from products of one of the oldest firms in the industry, all continued to enjoy an enviable reputation in their various spheres of operation.

Prior to the Second Great World War, Karrier were producing more Municipal Motor Appliances – and in a wider variety of types - than any other single organisation, and such had been their continued success throughout the years that at that time some 600 public authorities were employing Municipal Karriers with every satisfaction.

With the outbreak of war, the needs of industry had to make way for the needs of the fighting services and Karrier had perforce to concentrate on the production of vehicles of military value.

They had for long been identified with the design and production of cross-country machines and for many years had supplied to the Government large numbers of rigid-frame six-wheelers capable of carrying five ton loads over made roads or three tons across rough and un-developed country.

Important Government contracts were placed for vehicles of this type together with contracts covering a newer type of three-ton four-wheeler with power applied to all four wheels; and the production of these together with a most efficient type of Armoured Fighting Vehicle kept Karrier more than busy during the years of the war.

This was indeed a period of great achievement and Karrier are justly proud of the part they played in meeting the needs of Britain's fighting forces.

With the cessation of hostilities developments proceeded apace, full advantage being taken of the invaluable knowledge and experience acquired during the war years, and improved models including the popular 'Bantam' both as a two ton load carrier and as a tractor for dealing with trailer loads of five tons were made available together with the manoeuvrable "CK3" three-four tonner, whilst on the Municipal side all products, refuse collectors and gully emptiers alike, were brought completely up to date in specification and appearance.

In 1948 the "Bantam" was completely re-designed with a comfortable, all steel cab of pleasing appearance, whilst two years later the "CK3" was superseded by the "Gamecock" 3-4 tonner, the latter powered by a six-cylinder o.h.v. engine mounted almost horizontally beneath the floor of the driver's cab and incorporating for the first time porous chrome cylinder bores, which have the advantage of increasing engine life very considerably, and enables phenomenal mileages to be run before re-boring becomes necessary.

The usefulness of these models was extended in 1954 by the offering of a diesel engine as an alternative to the petrol engine, that in the "Gamecock" being the remarkable Rootes Group's "TS3" two-stroke – a three-cylinder of the opposed piston type – which, because of its layout gives a greater thermal and mechanical efficiency than a normal oil engine. A low capital cost, lower fuel consumption, greater torque at low speeds, silence of operation and singlicity of maintenance are highlights of this remarkable engine – the first to be produced by the Rootes Group.

About this time, too, was introduced a small 14 seater coach chassis and an ambulance, each with a 50 b.h.p. four-cylinder engine embodying life extending porous chrome bores and synchromesh gearbox.

In 1955 announcements were made which were to make Karrier models even more popular with already more than satisfied operators. In the "Gamecock" 3-4 tonner a "TS3" diesel engine developing 75 b.h.p. was offered as an alternative to the already fully proved 85 b.h.p. six-cylinder o.h.v. petrol engine. In addition the 'Gamecock' was fitted with a new robust four-speed synchromesh gearbox and an improved and strengthened rear axle. In the 'Bantam' two tonner a P4 52 b.h.p. four-cylinder diesel engine was made available as an alternative to the fully proved four-cylinder 48 b.h.p. petrol engine. The versatility of the Bantam' was still further enhanced by the introduction of an alternative 10ft. 2in. w.b. chassis to the existing 8ft. 2in. version.

In 1936 after a lapse of almost twelve months, the Karrier 'Bantam' 4-5 ton tractor with 'J' or 'BK' type coupling was re-introduced. The standard power unit was the 54 b.h.p. o.h.v. four-cylinder porous chrome bore petrol engine with a 43.5 b.h.p. four-cylinder light diesel available as an alternative.

The light diesel engine became so popular with Karrier 'Bantam' operators, by virtue of its outstanding economy and exceptional reliability, that it became necessary to make this diesel engine available as an optional power unit in the Karrier 14-seater coach and the Karrier Ambulance. In August 1957 this was proclaimed to the public and was met with great approval.

1958 brought further improvements to the Karrier range. In March four new versions of the popular 'Bantam' municipal range were introduced. They were a 10 cu.yd. side-loader with single cab, a 10 cu.yd. side-loader with double cab, a 10-12 cu.yd. Dual Tip 'Junior' with single cab and a 10-12 cu.yd. Dual Tip 'Junior' with double cab.

In August 1958 the Karrier-Walker 12-seater bus, which fully complied with the Ministry of Transport P.S.V. regulations, was introduced. Powered by either a four-cylinder petrol or a four-cylinder diesel engine this new bus proved the saviour of many country and local feeder services which could not run larger vehicles.

At the Commercial Motor Show at Earls Court came the announcement of a new Karrier 'Gamecock' with a new cab and incorporating the new Karrier Medium diesel engine. This new engine was a six-cylinder o.h.v. unit of the Perkins C.305 design developing a gross b.h.p. of 87 at 2,400 r.p.m. and a torque of 216 lb.ft. at 1,300 r.p.m. The new all-steel cab was designed to afford superb driver comfort. A deep, wide one-piece windscreen gave panoramic vision and the headroom was increased over the previous model.

Hard on the heels of the success of the new 'Gamecock' cab, a similar unit incorporating the one-piece windscreen was announced for the 'Bantam' 2-3 ton and 4-5 ton tractor models in February 1959.

In June of the same year, at the Institute of Public Cleansing Conference in Brighton a new version of the Karrier 'Bantam' 4-5 ton tractor was shown. It was a battery electric operated tractor designed by Karrier Motors Ltd. in collaboration with Smith's Delivery Vehicles of Gateshead.

The beginning of 1961 saw the introduction of a new type or refuse collection body on both the 'Bantam' and 'Gamecock' models. This was the Blenheim Refuse Collector available in three sizes, 11-15, 18-24 and 22-30 cu.yds. and incorporating the latest techniques of hydraulic refuse collection.

So the story continues. Two World Wars have altered the form of the world during the half century that has passed since the origin of Karrier Motors. Ltd. but the policy of this company has remained un-altered, to meet the demands of operators with economical, long-lasting and reliable vehicles.

## **6 Acknowledgements**

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