1913

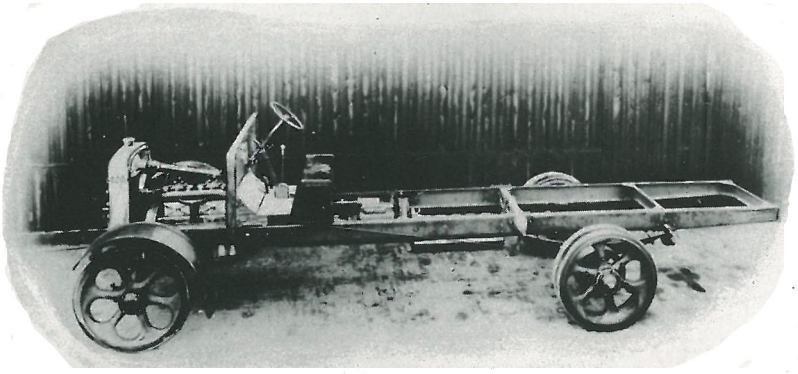
THE FIRST FIFTY YEARS.

The Story of
the birth and
development
of
Bristol
Vehicles

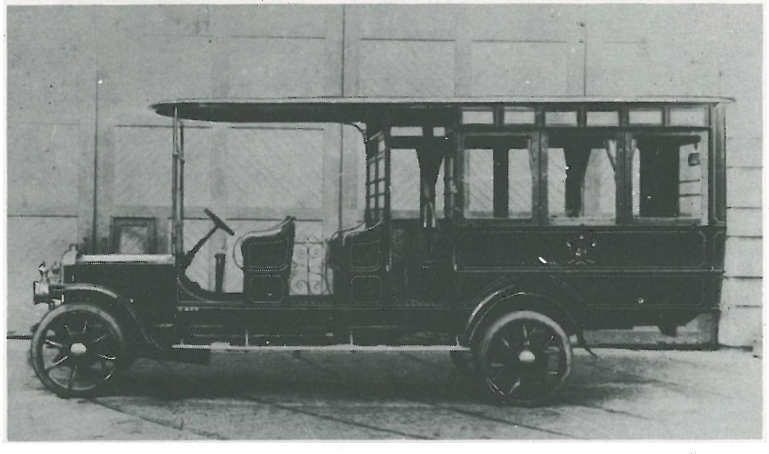
1963

BRISTOL COMMERCIAL VEHICLES LTD.,

The Pride of the Fleet. "Bristol" Omnibus Type C45, early 1913.



One of the first production "Bristol" chassis 1913.



"Bristol" single-deck semi-saloon bus on C50 type chassis 1914.

The story of the inception, development and success of the " Bristol " public service and heavy goods vehicles commenced rather more than fifty years ago, although regular production of the first 'Bristol' omnibuses did not start until early 1913.

It was largely due to the forward vision of the then Chairman of the Bristol Tramways & Carriage Company, the late Sir George White, Bart., that as early as 1906 the electric tramcar services in the City of Bristol began to be augmented by motor omnibuses, strange and temperamental vehicles of doubtful nomenclature but, nevertheless, proving their worth and shaping the course of future development. These earliest vehicles were followed very shortly by a breed of *chars-à-bancs,* the earliest motor coaches, taking ventursome folk on hazardous trips into the surrounding countryside. Premises at Filton were utilised for the maintenance and repair of this 'fleet' until in 1910, with the promotion of another far sighted vision by the Bristol Company's Board, the British and Colonial Aeroplane Company was formed and installed at the Filton premises. Following this development in 1912, another factory, located at Brislington, was acquired for the manufacture and repair of the motor vehicles, later to become widely known as 'The Motor Constructional Works.'

Thus was set in motion the train of events which were to develop on the one side into the gigantic organisation of aircraft manufacture now centred at Filton and on the other to the substantial and well-known manufacture of public service vehicles and heavy goods chassis, both under the name of 'Bristol.'

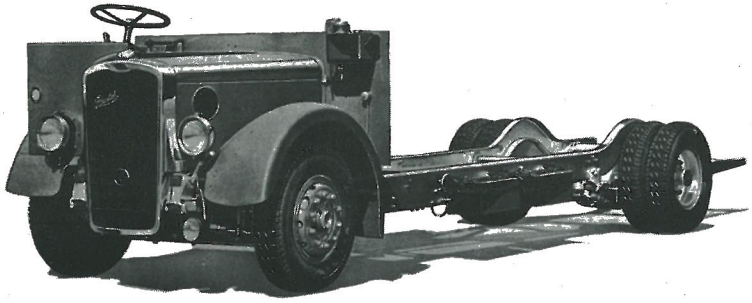
In 1912 the first production model 'Bristol' omnibus chassis was designed. This was the all-Bristol petrol engined 4-tonner with solid tyres, on which general production commenced in the spring of 1913.

Since then, with the exception of the two World Wars, production of 'Bristol' vehicles has continued without cessation with a steady expansion of output and improvement in design and development of new models.

In the process, the Company's products acquired an outstanding reputation for reliability and excellence, and whilst initially and primarily the vehicles were produced for use by the operating branch of the Bristol Tramways, eventually and until 1947 'Bristol' chassis were also being supplied to numerous municipalities and bus operators in England and Wales, Northern Ireland, Jersey, South Africa and India.

In 1935, control of the Bristol Tramways & Carriage Company passed from its original Bristol-dominated Board to that of the Tilling Group of Bus Companies, and subsequently, in 1947, as a member of that group the Company came under the control of the British Transport Commission. During these years the manufacturing section developed and expanded considerably, but under the restricting clauses of the 1947 Transport Act the output of chassis was limited and

An early "Bristol" double-decker on "B" type chassis.



"Bristol" K (& L) type chassis for double deck and single deck vehicles. In production 1936–1956.

no further orders for vehicles could be accepted from outside undertakings or from overseas customers.

In 1955, a further development in control took place when the manufacturing activities of the Company were transferred to the present Company, Bristol Commercial Vehicles Limited, which had been formed at an earlier date for this particular purpose. On the 1st January 1963, when through the 1962 Transport Act the British Transport Commission was broken down into smaller units, Bristol Commercial Vehicles Limited, in company with all other Tilling Group Companies, was transferred to the Transport Holding Company.

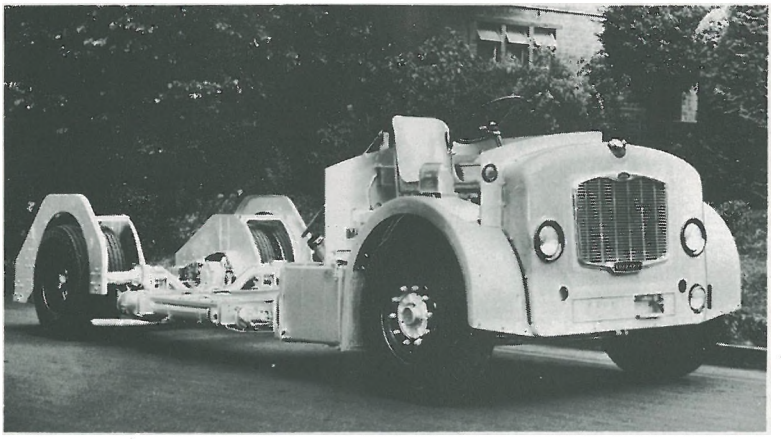
Whilst the Manufacturing Division was progressing through the foregoing eras of control, development and production of 'Bristol' vehicles went steadily ahead. The initial 4-tonner introduced in 1913 remained in production some ten years, achieving a total output of approximately 700 vehicles, most of which were omnibuses but which included a number of lorries and vans, built mostly for local firms.

It was during the life of this model that, in 1921, the Company first exhibited at the Commercial Vehicle Exhibition and branched out in the design of a 2-tonner, a lighter chassis suitable for either a small bus or light lorry. This model was in advance of contemporary design by having the full front with the driver's cab alongside the engine, which later became a general feature of the single-deck vehicles. It also followed contemporary development by having pneumatic tyres.

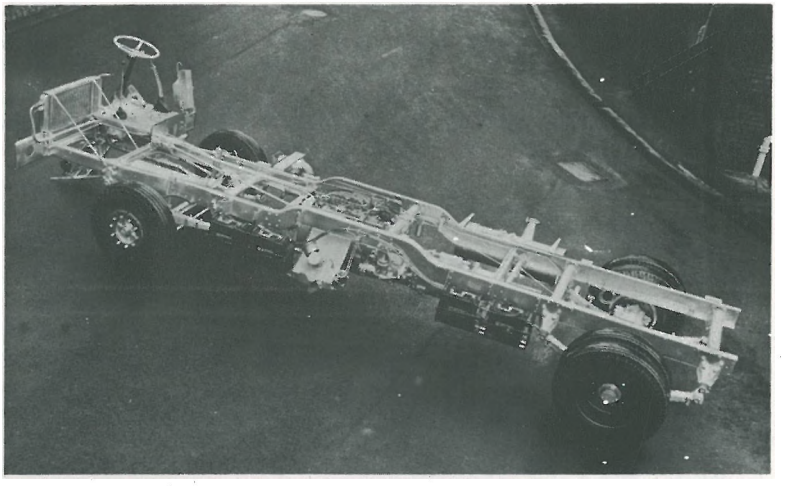
Between 1921 and 1935 a succession of 'Bristols' were designed, produced and marketed, to keep pace with the rapid development of public service vehicles. Amongst the most important of these were the 'A' type, a pneumatic tyred low loading chassis for either single or double deck bodies fitted with a 4-cylinder 'Bristol' petrol engine, the 'B' type, an improved version of the 'A', followed by 'D', 'G' and 'J' types. On the latter chassis the Gardner diesel engines were first fitted by Bristol, and production had increased to the extent that some 825 of these chassis were produced over a period of five years.

Towards the end of this period the need for more factory space was becoming very urgent, and the Chatsworth Road Works was acquired and laid out as a chassis assembly section, to which this work was transferred from its location in the Main Works.

In 1935, coinciding with the transfer of control to the Tilling Association and its decision to adopt the diesel engine as the standard power unit, the Company designed and introduced one of the most popular and successful of the various 'Bristol' models, the 'K' type double decker, with the slightly modified 'L' type for single deck buses and coaches. Of these two models, which remained in production, progressively modified and improved, for over twenty years, some 7,500 chassis were produced.



" Bristol " Lodekka double deck chassis as currently in production.



" Bristol " MW type chassis for single deck vehicles as currently in production.

In 1938, to meet the need for an additional engine as an alternative to the Gardner diesel, the Bristol 6-cylinder diesel engine was designed, and prototypes of this were in operation during the 1939–1945 War period. Following the war this engine went into production as the Bristol AVW vertical engine and during the next twelve years was fitted to a total of over 2,600 double deck chassis in the production line, whilst an adaptation of this engine, the LSW horizontal version, was fitted to a number of the underfloor engined 'LS' and 'MW' single deck chassis.

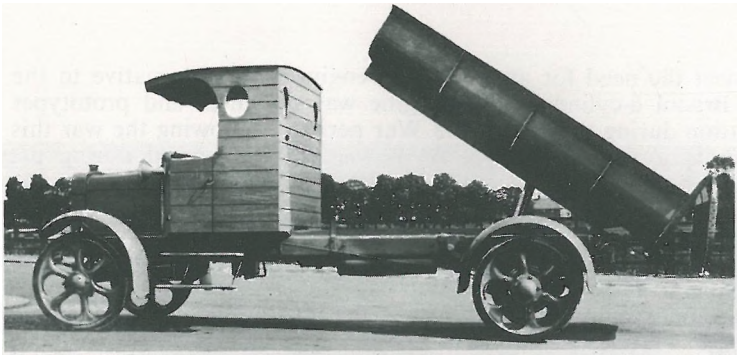
The intervention of the Second World War caused partial cessation of chassis manufacture, although between 1940 and 1945, on the instructions of the Ministry of War Transport, two wartime sanctions of the 'K' type chassis were produced and were widely allocated throughout the country by the Ministry.

The greatly improved production facilities of the manufacturing organisation at the Main Works, Chatsworth Road and the Body Building Works were adapted to a massive effort, day and night, on war work, producing Beaufighter fuselages, 20mm. shell cases, Rotol air screw hubs, searchlight trailers, gas producer trailers and numerous other projects, which continued in spite of intensive air raids and damage to the Works by high explosives and fire bombs on several occasions.

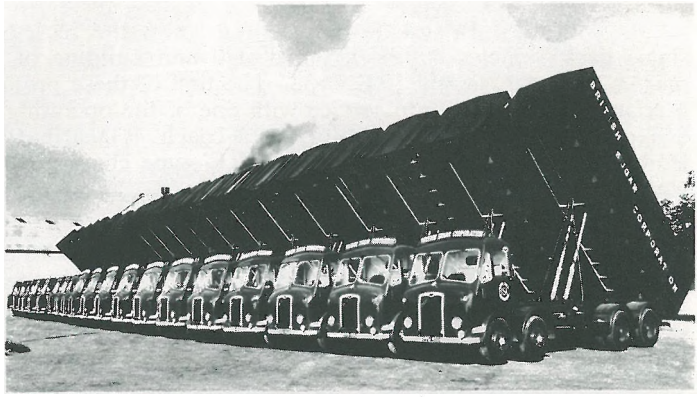
On resumption of normal chassis production in 1945, the Works entered a phase of intensive production of 'K' and 'L' type chassis on programmes for the replacement of war-worn fleets and post-war expansion, during which chassis output hit a new high level (for that time) of over 1,000 chassis in a year. Overseas operators were clamouring for vehicles, and very quickly customers in South Africa and India were receiving outstanding examples of Bristol workmanship in the form of modified single deck vehicles. In the two years up to Nationalisation in 1947, orders were received from these overseas customers for 225 such chassis. Many of the vehicles are still in operation despite the arduous conditions under which they have been working.

Following Nationalisation the output of the Works has been devoted to meeting the requirements of the Tilling Group, augmented by substantial orders from the Scottish Omnibus Group and by heavy goods vehicles for the Road Haulage Executive.

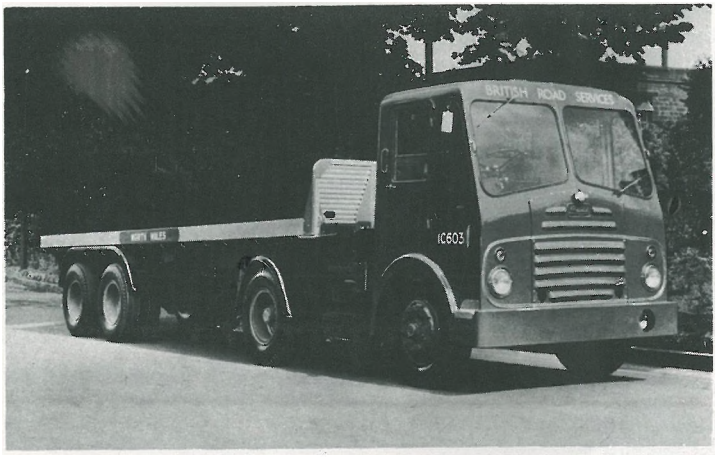
Throughout these various changes, constant experimentation and development kept 'Bristol' vehicles in the forefront of contemporary design and performance and has resulted in such outstandingly successful vehicles as the Lodekka double deck bus. This double deck chassis superseded the 'K' type, and its successor is the flat floor stepless forward or rear entrance Lodekka now in general production as the standard double deck chassis. In the case of the single deck chassis the 'L' type was followed by the 'LS' type, the first 'Bristol' single decker with the engine mounted horizontally amidships. This, in turn, was succeeded by the 'MW', the current 30′ 0″ chassis for single deck bus, express vehicles and coaches. A smaller single deck chassis, the 'SU', suitable for a bus of thirty-nine seats, is also currently



A selection of early "Bristol" Goods Vehicles. Top and centre on 4-ton and bottom on 2-ton chassis, 1920–24.



A fleet of "Bristol" Rigid 8-wheeled chassis fitted with Pilot tipping gear, supplied for a B.R.S. contract 1956.



"Bristol" max. cap. articulated motive unit and semi-trailer as currently in production.

being produced. This chassis is also fitted with an underfloor engine and has a special function as a 'one man' operated vehicle.

The latest Bristol development to meet the increasing demand for larger single deck vehicles has been the design and building of prototypes of a 36′ 0″ rear engined chassis, the 'RE' type. The first of these prototypes, a 54-seater stage carriage bus, was put into service with one of the operating companies towards the end of 1962. The second prototype, a coach, is nearing completion at the Body Builders. General production of the 'RE' type chassis is scheduled to commence early in 1963.

In 1957, an improved version of the Bristol AVW diesel engine, designated the BVW, was introduced and has since shared with the Gardner LW and LX vertical type engines the allocation to the double deck chassis. On the larger single deck chassis the Gardner horizontal engines only are fitted at present.

The introduction of such an outstanding and revolutionary chassis as the stepless entrance flat floor Lodekka and the rear engined 36′ 0″ single deck into the ranks of contemporary Public Service Vehicles received particularly favourable comment by the Technical Press, and the Company has been referred to as leading the field in these developments. Already some 1,200 of the flat floor Lodekkas are in operation in the Tilling and Scottish bus fleets.

As stated, in the early days of 'Bristol' manufacturing history, a variety of goods vehicles were built. These ranged from light vans and tankers to (the then) heavy 4-ton lorries. With the increased emphasis on chassis production, however, the manufacture of goods vehicles was discontinued for many years but resumed again after the acquisition of the Works by the British Transport Commission in 1947, when heavy goods vehicles were designed for the Road Haulage Executive (later British Road Services) and went into production. The first of these was the 'Bristol' rigid 8-wheeled lorry, of which some 500 have been produced. This model was followed by the 'Bristol' Maximum Capacity Motive Unit and semi-trailer of 24 tons gross weight. Of these, again over 500 motive units and 850 trailers have been produced to date. These several models are 'live' production lines proving very satisfactory in operation.

Bodies for the earlier goods vehicles and for many of the buses were built at the Brislington Body Works of the Bristol Tramways & Carriage Company. Under the changing conditions and the steadily increasing demand following control by the Tilling Group, the majority of 'K' and 'L' type bodies were built and fitted by the Tilling Group's Body Building Undertaking at Lowestoft, Eastern Coach Works Limited, where at the present time all the passenger bodies, with the exception of an occasional small number of coach bodies, are built and vehicles completed.

Bristol/ECW F.L.F. type 70 seater stepless forward entrance flat floor Lodekka bus.

39 Seater MW type coach.

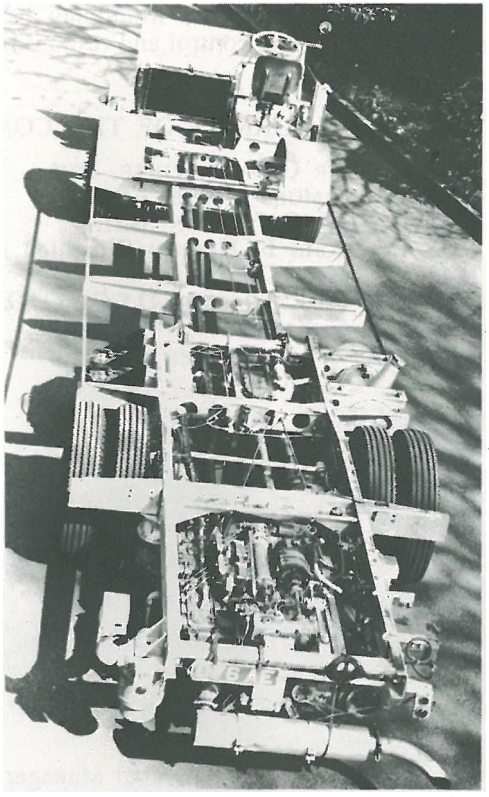
Two current production Bristol/ECW vehicles.

The Company has built up, particularly in recent years, an efficient and well equipped experimental department which has made important contributions to the progressive development of the 'Bristol' chassis types and of which considerable use has been made from time to time by other Departments of the Commission and by the Ministries. Amongst special projects undertaken have been the development and manufacture of two prototype diesel rail buses for British Railways Central Headquarters and a container transporter also for the Railways. Undertaken for the Ministries were a prototype light A.A. gun transporter and a compressor gearbox for the M.O.S. Atomic Division, both particularly massive and complicated item of equipment.

A further project of considerably larger pattern undertaken for the Ministry of Supply was the management, until closed down in 1959, of the Ministry's Engine Repair Works at Kingswood, where over a period of twelve years 75,000 engines of fifty-five or more types were overhauled and some 500 people employed.

The complexity of the modern chassis, fitted with its numerous essential features for modern transport, including such items as air spring suspension and air hydraulic brakes, patent space heating system, etc., when compared with the simplicity of the original 'Bristol' 4-tonner of 1915, shows the tremendous change in engineering production during fifty years and the extent to which experimentation and development have been involved. That Bristol has maintained a position in the forefront of this field of vehicle development, and reached and upheld so high a reputation amongst the heavy vehicle manufacturers, redounds to the credit of all those who have given devoted and faithful service through these fifty years.

The Bristol Tramways was noted for its many long-service employees, and there is no doubt that there have been many who have given a lifetime of service to the Manufacturing Section of the Company; and to them, to the Technical, Engineering Staffs and machine operatives, supervisory and clerical staff and to the successive Executives and Management are due the growth and achievement about which this story is written.



The latest. The "Bristol" R.E. type chassis for 36′ 0″ coach, express or stage carriage vehicle.

Bristol/ECW small capacity 36-seater bus on SU type chassis currently in production.

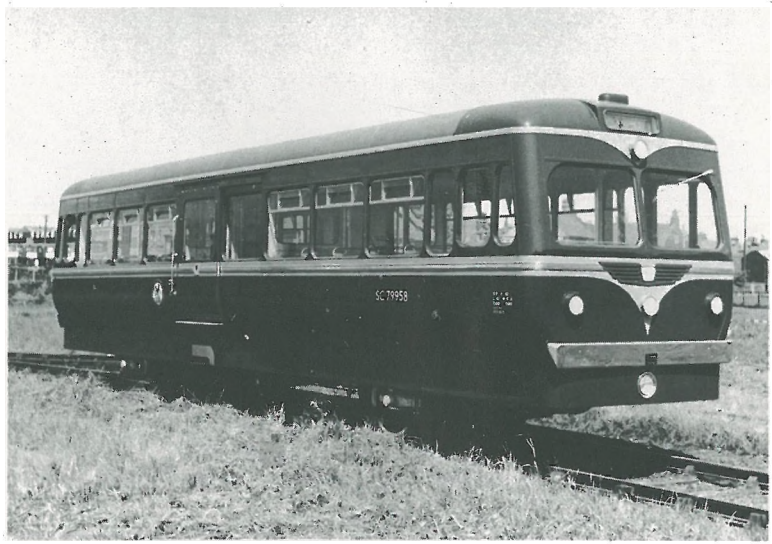
The story of 'Bristol's' first fifty years would not be complete without a reference to the people who have been in control and responsible for the progressive developments which have taken place.

THE SUCCESSIVE CHAIRMEN OF THE COMPANIES

1913–15	Sir George White, Bart.
1916–27	Samuel White, J.P.
1928–34	W. G. Verdon Smith
1935–47	John F. Heaton (Knighted in 1942)
1948–49	Geo. Cardwell
1950–53	F. J. Chapple, D.S.O., C.B.E.
1954–59	S. Kennedy
1960–	M. A. Holmes

THE MANAGERS OF THE WORKS

1913	E. Serex	Engineer in Charge
1913–22	D. H. Duff	Works Manager
1922–36	C. G. Nevatt, M.I.Auto.E.	Works Manager
1936–50	A. J. Romer M.I.Mech.E., M.Inst.T.	General Manager (Works) and Director
1951–54	A. W. Hallpike M.I.Mech.E., M.I.Prod.E.	General Manager (Works)
1955–	A. W. Hallpike M.I.Mech.E., M.I.Prod.E.	Director and General Manager



Prototype Bristol/ECW Railbus built 1958 for British Railways Central Headquarters.