

*unstoppable*

## OUT OF STEAM

*For most of the 19th century and the early part of the 20th, steam buses enjoyed stop-start success. Their demise coincided with the popularity of the internal combustion engine.*





## APOLLO TYRES LTD. *unstoppable*

Never wary of progress, never skeptical about success,  
Never scared of challenges, never tired of trying.  
Every step of the way we travel with our customers,  
On the "unstoppable" journey to success.

**S**ir Goldsworthy Gurney experimented with steam road traction from 1823 onwards and at least one of his four-wheeled steam tractors hauled a coach between Gloucester and Cheltenham several times daily. The nine-mile journey, operated by Sir Charles Dance, was undertaken in as little as 45 minutes, but the apparent success alarmed other operators. On June 23rd 1831, piles of loose stones were scattered across the road and resulted in the coach breaking its back axle. Consequently the Turnpike Trusts imposed additional tolls on self-propelled vehicles and the venture came to an end.

The introduction to London, on the 22nd April 1833 of a regular steam carriage service marked the beginning of the history of the mechanically propelled bus. Walter Hancock's steam omnibus named 'The Enterprise' was built for the London and Paddington

Steam Carriage Company and ran between London Wall and Paddington via Islington. Hancock himself built and operated steam buses between 1833 and 1840. In 1836 he introduced the 22-seat 'Automaton' and ran over 700 journeys between London and Paddington, London and Islington, and Moorgate and Stratford, carrying over 12,000 passengers and reaching speeds in excess of 20 mph.

Harsh legislation from 1861 onwards virtually eliminated mechanically propelled vehicles from the roads of Great Britain. The Locomotive Act of 1861 imposed speed limits on 'road locomotives' of 5mph in towns and cities, and 10mph in the country.

It was not until the internal combustion engine achieved a modicum of success on the Continent that public opinion against mechanically propelled vehicles began to change, and, in 1896, the Government passed the Locomotives on Highways Act. This removed the most stringent restrictions and sanctioned a maximum speed of 14 mph. The Act came into force on the 14th November 1896 and from that date the mechanically propelled bus took a giant step forward.

Experiments with steam vehicles restarted. In 1899 a double-deck steam bus built by E. Gillett & Company of Hounslow was licensed for use in London, although it was basically a horse-bus body, seating 10 inside and 14 outside, mounted on a steam lorry chassis, with a light awning to protect potential passengers from soot and steam.

On the 17th March 1902 an experimental service between Hammersmith and Oxford Circus via Shepherd's Bush using a Thornycroft coke-fired steam bus was inaugurated by the London Road Car Company. The vehicle had coachwork based on a horse bus body, but was adapted to seat 36 passengers by elongating the upper deck over the driver. It had steel tyres and carried sandboxes.

Thomas Clarkson [1864-1933], formed his



own company called the National Steam Car Co. Ltd, which commenced services on the 2nd November 1909 with four steam buses. The fleet was gradually built up and in 1914 it was operating a total of 184. However this was to be the pinnacle of the steam bus era, which was never able to compete satisfactorily against the rise of the petrol engine bus. The last National steam bus ran in London on the 18th November 1919.

### THE SENTINEL

The company began life in 1906 as Alley & MacLellan produced steam road vehicles starting 1906. In 1920, after financial problems, the company was reorganized as Sentinel Waggon Works (1920) Ltd.

In 1934 Sentinel launched a new and advanced steamer - the S type which had a single-acting 4-cylinder underfloor engine with longitudinal crankshaft and an overhead worm-drive axle. It was lighter and featured a modernized driver's cab with a set-back boiler and was available in four, six and eight-wheel form, designated S4, S6 and S8. Buses could also be built on the same chassis. In spite of its sophisticated design, however, it could not compete with contemporary diesel trucks for all-round convenience and payload capacity, and was phased out in the late 1930s. It was not the end of Sentinel's involvement with steam, however; the company built about 100 "S" type vehicles for export to Argentina as late as 1950, for use by the Rio Turbio coal mine.