

## Straker Steam Vehicle Co. Ltd Cannon Street, London & Fishponds, Bristol

**S**idney Straker was a consulting engineer with offices in Cannon Street, London. No doubt as a result of his business connections he had developed a firm friendship with Edward Bayley, chairman of Bayleys, a very old established firm of bodybuilders, wheelwrights and suppliers to the (horse-drawn) trade.

Bayley was steam-minded and like so many of his peers, could see the potential for a sound, reliable steam wagon. He and Straker decided to work together building a wagon for entry into the 1899 Liverpool Trials. This took the form of a 3-ton 'trolley' as it was termed. They chose to use a De-Dion pattern coke-burning water tube boiler with a working pressure of 200 psi.

The engine, designed by Straker, was a piston valve semi-enclosed compound with single eccentric reversing gear. The cylinder bores were 4in x 7in with a stroke of 5in and produced 22bhp at 500rpm.

The transmission could conceivably have been considered ahead of its time, the drive being solely by gears, no chains being used.

Unfortunately not being enclosed and open to the road dust and grit, the gears wore badly with ever-increasing noise.

The wagon was duly entered in the Trials where it was assigned to Class 'B' becoming

entry No. 9. This category called for a minimum load of 3.5 tons, a maximum tare weight of 3 tons and a minimum level platform area of 65 sq ft.

The Trials attracted no less than ten

entrants, of which four failed to appear, so that the categories were reduced to two – namely 'B' and 'D'. Although the Straker didn't receive the Gold Medal - which was awarded to the Steam Carriage & Wagon



Straker 5-ton wagon numbered between 20 and 30. Reg No. BB 88, built c1902 and sold to removal contractors Bainbridge & Co Ltd of Newcastle-on-Tyne. Imagine the fear of what you were going to find when you opened the tea chest containing your best china and glassware after a few miles on those steel wheels on the roads of that time.

TOP: Straker 5-ton wagon built in 1904 and sold to the North Eastern Rly Co, where she became No. 1 in their road fleet. She was put to use working out of their Tollerton Goods Depot north of York. The spartan cab must have made for unpleasant conditions on a freezing Yorkshire morning!

# STEAM WAGONS



Straker 5-ton wagon No. 84 (build date not recorded) Reg No. Y 215 was supplied new to G Sprake, building contractor of Weston-Super-Mare. The factory sales records show it as sold to Sprake & Wilkins. In 1909 she was sold to Hayward & Wooster of Bath, changing hands again in 1917 and 1919 and was finally broken up in 1922.



Straker 5-ton wagon No. 120 Reg No. CH 121 built in April 1904 and sold to the Midland Railway Co for use at their Bath Goods Depot, receiving their fleet No. 5263. These wagons had the power to pull a trailer carrying a load of 2 tons, giving a respectable payload of 7 tons, which was very good bearing in mind the unmade roads of the day.

RIGHT: Straker 5-ton wagon No. 101 Reg No. BM 35 was built in 1904 and sold to George Horn of Kempston Mill, Bedford. In 1912 she was sold to Herbert N Harris of Bridport, Dorset. The steam wagon industry was just getting into its stride and ownership of such a vehicle would denote a progressive firm employing the most modern equipment. William Horn and driver William Morris proudly pose with their new wagon.



Co of Chiswick (Thornycrofts) – it was reported as acquitting itself very well and was jointly awarded the Silver Medal with the Lancashire Steam Motor Co (Leyland).

Straker's experience with Bayley encouraged him to continue working along the same lines and in 1901 formed a new company 'Straker Steam Vehicle Co Ltd' with a capital of £12,000 and works at Fishponds, Bristol.

He first set about modifying their 3-ton Trials 'Trolley'. He retained the De-Dion coke-burning water tube boiler, these being supplied by boilermakers Abbott & Co of Newark, to the requirements of the Manchester Steam Users' Association with a working pressure of 200 psi and with the same heating surfaces as before.

A superheater and an exhaust pre-heater were fitted within the firebox, the latter device consisting of an iron casting just above the firebars through which the exhaust steam was led so that by the time it was released into the atmosphere the moisture had dried out so that it was less visible and therefore less likely to frighten passing horses.

It must be remembered that the horse-owning fraternity had considerable influence and were very much against the 'noisy and dangerous steam wagon'. Complaints would be made on any pretext as those earning their living with horses could see their incomes suffering. Any opportunity to slow up the advance of this new form of transport would be taken on the grounds of self-preservation.

Feed water to the boiler was supplied by one injector and a pump driven off the engine. The Straker designed horizontal piston valve compound engine had cylinders of 4in and 7in with a stroke of 7in which developed 25 indicated bhp at 450 rpm. The crankshaft of 2.25in diameter was extended in square section from the engine, giving it a length of 4ft 6in.

This carried a double sliding pinion which could be put into and taken out of gear by hand, a process that required the driver to dismount from his cab.

The pinion meshed with gear wheels on the countershaft which rotated in long bearings fixed to the vehicle's chassis. Upon this was mounted a double sprocket to take the Duplex roller chain which transmitted the power to the back axle and was carried in two sleeves. A differential was fixed to the right hand sleeve (which was flanged) to which the rear wheel was bolted. The two sections of the axle could be locked by the insertion of a locking pin (traction engine fashion) which enabled both rear wheels to be driven when the occasion so demanded.



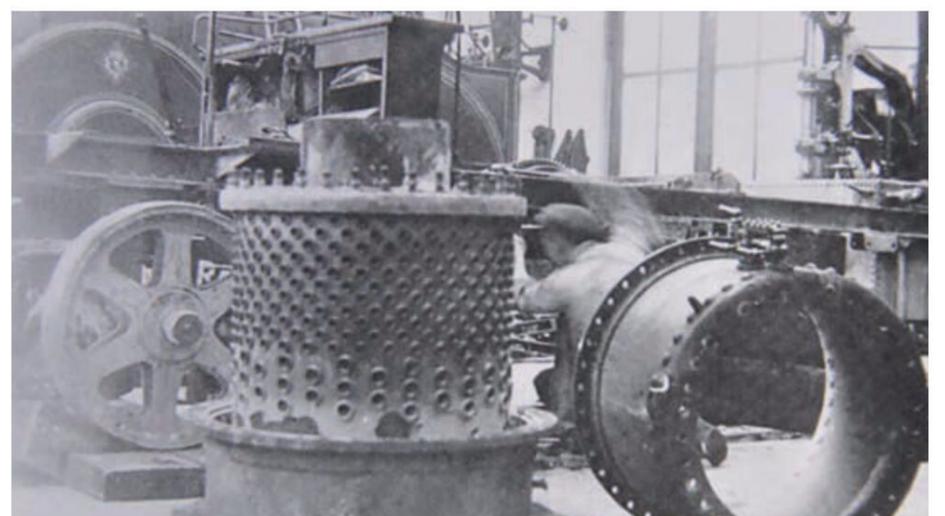
Straker 5-ton wagon No. 29, built c1903 and sold to Woods, Sadd, Moore & Co of Loddon, Norfolk. Even the sparse Straker cab of dubious benefit is absent on this version of the vehicle!



Straker 5-ton wagon built c1903 Reg No. L 103 and sold to the Bristol brewers W.J Rogers Ltd. The photo is presumably outside the brewery when the vehicle was new. In 1905 its registration was changed to AE 696.



Straker 5-ton wagon No. 40 Reg No. FB 10, built 1903 and sold to crane and winch manufacturer Stothert & Pitt of Bath. From the registration it would seem likely that the photo was taken c1905 and depicts the delivery of one of their winches to Portsmouth Dockyard.



Straker wagon No. 120's boiler in the Midland Railway's Bath locomotive shed whilst undergoing major overhaul. Visible in the background is a Midland Johnson 4-4-0 locomotive also in for attention.

## STEAM WAGONS



Straker 5-ton overtype wagon No. 204 Reg No. LN 6645, was built in 1907 and entered for the RAC Trials. This wagon was the first overtype to be built by Straker – possibly the success of the Foden overtype persuaded Straker to try his hand at an alternative system.



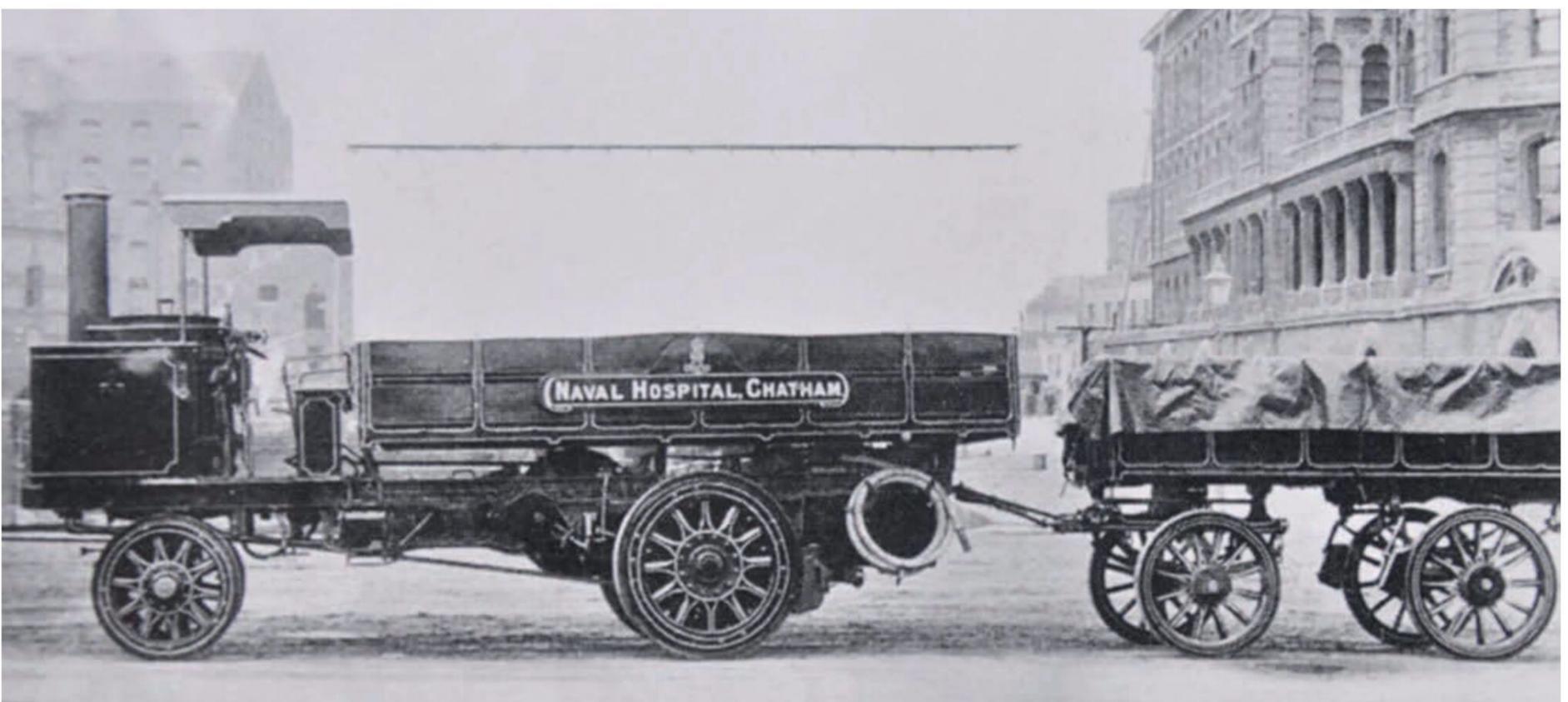
The wheels were made up from mild steel plate and cast into iron hubs although alternative wheels of steel with wooden spokes were available later. The steering was by a worm wheel operating on a segment which allowed the wheels to be held in the desired direction of travel. The water tank had a capacity of 140 gallons. The amount of coke carried was not important as extra bags could always be found room for. Water would be taken every ten miles or so, for it was always said that you wouldn't pass a source of water once this distance had been covered.

Like so many of these pioneering companies, much of their early records are missing, but from those that have survived we learn that around 200 wagons were built including those of the later type which had horizontal boilers and traction engine steering, after the style of the highly-successful Foden.

In their day they must have had a good reputation judging from the well-known firms that were customers – such as Carter-Patterson; J Sainsbury; Cunard Shipping Co; Dorman Long; The Midland Railway Co and the North Eastern Railway Co amongst others.

A fair number were exported, certainly to South Africa and Australia. I will not tempt providence by saying that one, or bits of one, doesn't exist in the UK, but it would be very nice if it were true. At least one exists in Australia and is currently (2003) under restoration. ■

LEFT: Another shot of the Midland Railway's Fleet No. 5263 (Straker No. 120). The vehicle was last licensed in February 1921.



Straker 5-ton wagon and trailer built in 1904 and supplied to the Admiralty for service at the Royal Naval Hospital, Chatham, Kent. The vehicle is fitted with wooden spoked wheels which were an optional alternative.