



Fig. 1. Sentinel 6-ton undertype waggon No. 129 (V 435) was built in 1907 and sold to James Dewe of Burghfield, Reading. It was later acquired by Clarks Ltd, also of Burghfield.

Sentinel Waggon Works Ltd

Alley & MacLellan Ltd, Polmadie, Glasgow (1875–1918)
Shrewsbury, Shropshire (post–1918)



Fig. 2. Driver David Gibson, the Scottish Co-op's first steam driver, and his mate Gilbert McClung with their 6-ton Standard waggon.

Standard waggons

The Glasgow-based firm of Alley & MacLellan Ltd was founded in 1875 as general engineers and came to specialise in marine engines, boilers, winches and valves.

In 1903 there were an ever-increasing number of builders hoping to find fame and fortune by designing and building their own steam wagon, many having no idea of what was entailed and which eventually fell by the wayside. Others soon ran out of money not having realised the expense that was involved.

With their steam engineering experience, a decision was made by Alley & MacLellan to enter the wagon market and work started on a suitable vehicle design.

Unlike Fodens, who were having success with their overtyp wagon, Alley & MacLellan chose to go with the undertype



Fig. 3. Sentinel 3-ton Standard undertype waggon No. 1329 (AW 3048) was built c1916 and sold to Dan Lewis of Hanley, Stoke-on-Trent – a wholesaler that advertised Crown Brand self-raising flour on the front. It later sold to E.B Ward of Stockton Heath, Cheshire before passing to its last owner, Richard Allen of Widnes.

(cylinders mounted beneath the wagon. Overtypes have them located on top of the boiler.)

They were to be built to a very high standard using only the best available materials and all parts were interchangeable so that worn or damaged items could speedily be replaced.

This would limit the time in the garage so that the vehicle's availability would be increased and thereby give owners a better return on their investment. Most important, the wagons were to be competitively priced.

Late in 1905, the first 'waggon' under the 'Sentinel' banner drove out of the company's works in Polmadie, Glasgow.

That the company's policy was well-chosen can be seen from the success that they enjoyed, building their last undertype waggon in 1951. This is except for the period of 1911-12 when they built, for some reason, around 16 oertype waggons. Why this digression took place has never really been discovered, although a number of sound theories have been put forward!

By 1914 the increase in demand both for their marine products and the increasing popularity of their waggons was seriously outstripping manufacturing capacity at Polmadie. Therefore it was decided that the

company would build a new factory just for the production of its steam waggons. Fresh land was purchased just outside Shrewsbury and building work was started early in 1915.

Machinery, tools, jigs, spares and a nucleus of specialised workers moved down to Shrewsbury and in a remarkably short time the first waggon drove out of the new works in July of that same year.

In 1918 a new company was incorporated called 'Sentinel Waggon Works Ltd'. This change came about as the result of taking over the sole responsibility for the design, construction and sales of all Sentinel waggons from Alley & MacLellan Ltd of Glasgow.

In 1920 another change of name took place when the company became 'Sentinel & Waggon Works (1920) Ltd' (1920-1936).

Production continued but by now the original waggon had undergone many changes, modifications and improvements until 1922 when it was halted to give way to the new 'Super Sentinel' which was announced in 1923.

From the time of the introduction of the 'Super', the original waggon was henceforth known as the 'Standard Sentinel'.

Fig. 1 shows 6-ton Standard Sentinel No. 129 which was built in 1907 and sold to James Dewe of Burghfield Mills, Reading,

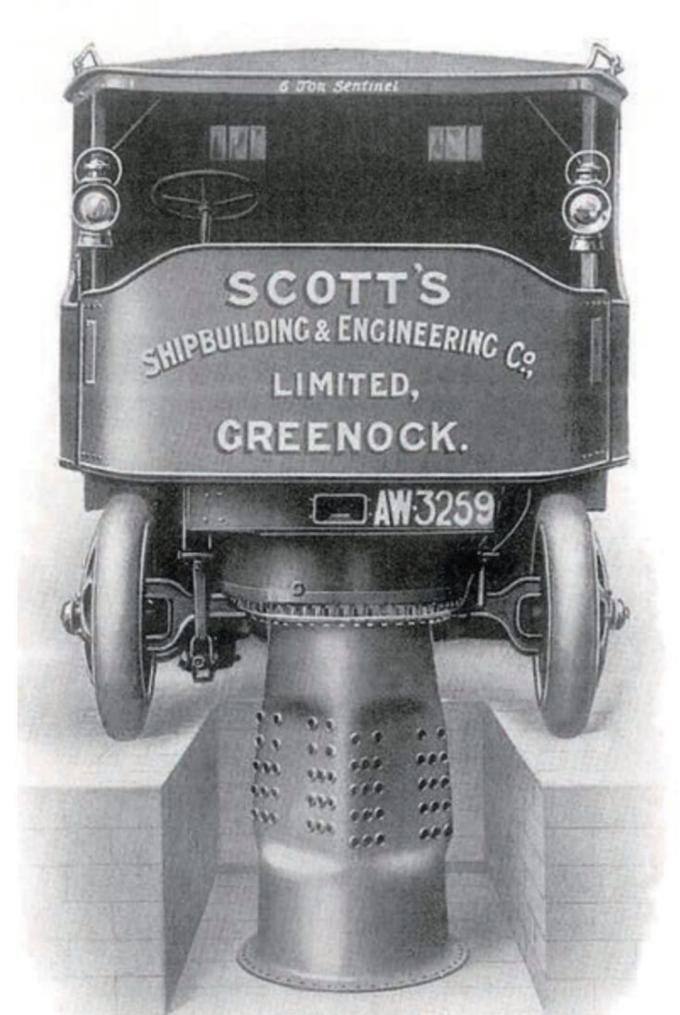


Fig. 4. Standard waggon No. 1423 was used for a catalogue illustration to show how a firebox could be lowered for annual inspection 'without disturbing connections to the outer shell'.

STEAM WAGONS



Fig. 5. Sentinel Standard undertype waggon No. 2022 (AW 4206) was built in July 1918 and sold to Stone & Co Ltd of Leicester, where it became No. 2 in their fleet.



where it received the registration V 435.

On a date not recorded it was sold to neighbour Clarks Ltd of Burghfield. By 1924 it had been acquired by Thomas Smith (Haulage) Ltd of Camden Town, London, where it worked until last licensed in May 1929.

Fig. 2 depicts a 6-ton Standard Waggon, with the registration V 513. Unfortunately details of this vehicle are rather sparse. According to the registration number, which positions it in the works list, its works number is somewhere near 183. Built in 1907, it was sold to the Scottish Co-operative Wholesale Society Ltd of Morrison Street, Glasgow, where it became No. 3 in its fleet. Later, on a date not recorded, it was sold to W.C Strathie of Glasgow, after which nothing further is recorded. Driver David Gibson (the Scottish



Fig. 6. Standard 6-ton waggon No. 2612 was built c1921 and was new to the Liverpool Malt Co Ltd. Here it is depicted with its third owner, the Liverpool Warehousing Co Ltd, where it became No. 23 in their fleet.

Co-op's first steam driver) and his mate Gilbert McClung certainly had to be tough enough to drive an open waggon like this in the face of a Scottish winter. A wee dram would certainly improve the situation.

Three-ton Standard waggon No. 1329 was built c1916 and sold to Dan Lewis of Hanley, Stoke-on-Trent, where it was registered AW 3048 (Fig. 3). On a date not recorded it was sold to E.B Ward of Stockton Heath, Cheshire, later passing to Richard Allen of Widnes, Lancs, after which nothing is recorded.

Fig. 4 shows 6-ton Standard waggon No. 1423, which by February 1917 had been sold to Scotts Shipbuilding & Engineering of Greenock and registered AW 3259. This photo was taken for use in their catalogue showing the method of lowering the firebox for the annual boiler insurance inspection; to quote: 'all interior surfaces are then entirely visible and accessible without disturbing connections on the outer boiler shell.' It is quite likely that it spent its working life with Scotts as no other details are recorded.

Fig. 5 depicts Standard undertype waggon No. 2022 which was built in July 1918, given the registration AW 4206 and sold to Stone & Co Ltd, removal contractors of West Bridge, Leicester, where it became No. 2 in their fleet. It spent its working life with this concern and was last licensed in March 1926, but by October 1929 had been scrapped.

Standard 6-ton waggon No. 2612 was built c1921, registered AW 5687 (Fig. 6). It was sold to the Liverpool Malt Co Ltd where it was given Fleet No. 1 and had been fitted with pneumatic tyres and electric lighting by January 1934.

By 1938 it had passed to A Kelly of Liverpool, who was possibly a dealer as on a date not recorded it was sold to the Kirkdale Haulage Co of Liverpool.

By February 1943 it was in the ownership of the Liverpool Warehousing Co Ltd as depicted in the photograph, becoming No. 23 in their fleet. It worked on the city's docks until last licensed in February 1947.

Fig. 7 shows Standard 6-ton waggon No. 2973, which was built c1920, receiving the registration AW 6682. It was new to Tennant Brothers Ltd of the Exchange Brewery at Sheffield. The photo shows the waggon on trade plates undergoing testing prior to delivery.

On a date not recorded it was later sold to Brown Bayley's Steel Works Ltd of Sheffield, where it became No. 3 in their fleet. There it worked until sold into preservation in the 1960s.



Fig. 7. Standard 6-ton waggon No. 2973 (AW 6682) was built in 1920 and sold to Sheffield brewers Tennant Bros Ltd. It later went to Brown Bayley's Steel Works Ltd of Sheffield until sold into preservation in the 1960s.

Fig. 8 shows what is thought to be possibly Standard 6-ton waggon No. 3728, built c1920. Given the registration AW 8811, it was sold to N Kilvert & Sons Ltd of Trafford Park, Manchester, where it became No. 14 in their fleet. Details on some of these earlier Sentinel waggons are rather sparse and this waggon is no exception.

Standard 6-ton end-tipper No. 4142 is also depicted on trade plates prior to delivery (Fig. 9). Built in 1922 it was sold to Thomas P Thomasson, a coke merchant and haulage contractor of Droylsden, Lancashire, but unfortunately no registration number or further details are recorded.

Finally, down in the south, Standard 4-ton waggon No. 4375 of May 1923 was sold to J.A Devenish, brewer of Weymouth, Dorset (Fig. 10). Here it received the registration PR 674, but no further details are recorded. ■

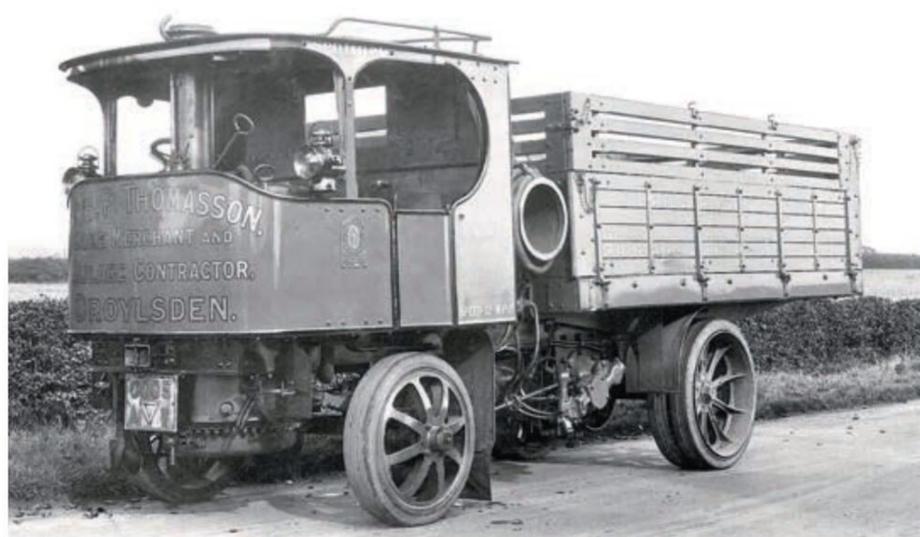


Fig. 9. Standard 6-ton end-tipper No. 4142 on trade plates, undergoing a road test prior to delivery. Built in 1922 and new to Thomas P Thomasson, coke merchant and haulage contractor of Droylsden, Lincs.



Fig. 8. Thought to be 6-ton Standard undertype waggon No. 3728 of c1920, it sold to N Kilvert & Sons Ltd of Trafford Park, Manchester, where it became No. 14 in their fleet.



Fig. 10. Standard 4-ton waggon No. 4375 of May 1923 was sold to J.A Devenish, brewers of Weymouth. Devenish, beers continued to be brewed in the town until 1985.

PRICES OF SENTINEL WAGGONS: JANUARY 1915

One 5-6 ton steel-tyred Sentinel waggon complete with flat platform and canopy and usual accessories for running	£650
Ditto with rubber tyres	£800
One 5-ton steel-tyred Sentinel end-tipping waggon with canopy and hydraulic tipping gear	£750
Ditto with rubber tyres	£880
One 5-6 ton steel tyred waggon with 1,000 gallon tar spraying apparatus	£880
One 1,000 gallon steel-tyred watering waggon	£780
Ditto with rubber tyres	£930
One 3-4 ton waggon with flat bed and canopy (rubber tyred only)	£740
One 3.5-ton end-tipping waggon with canopy and hydraulic tipping gear (rubber-tyred only)	£820

Prices to include delivery via rail or quay, Glasgow.

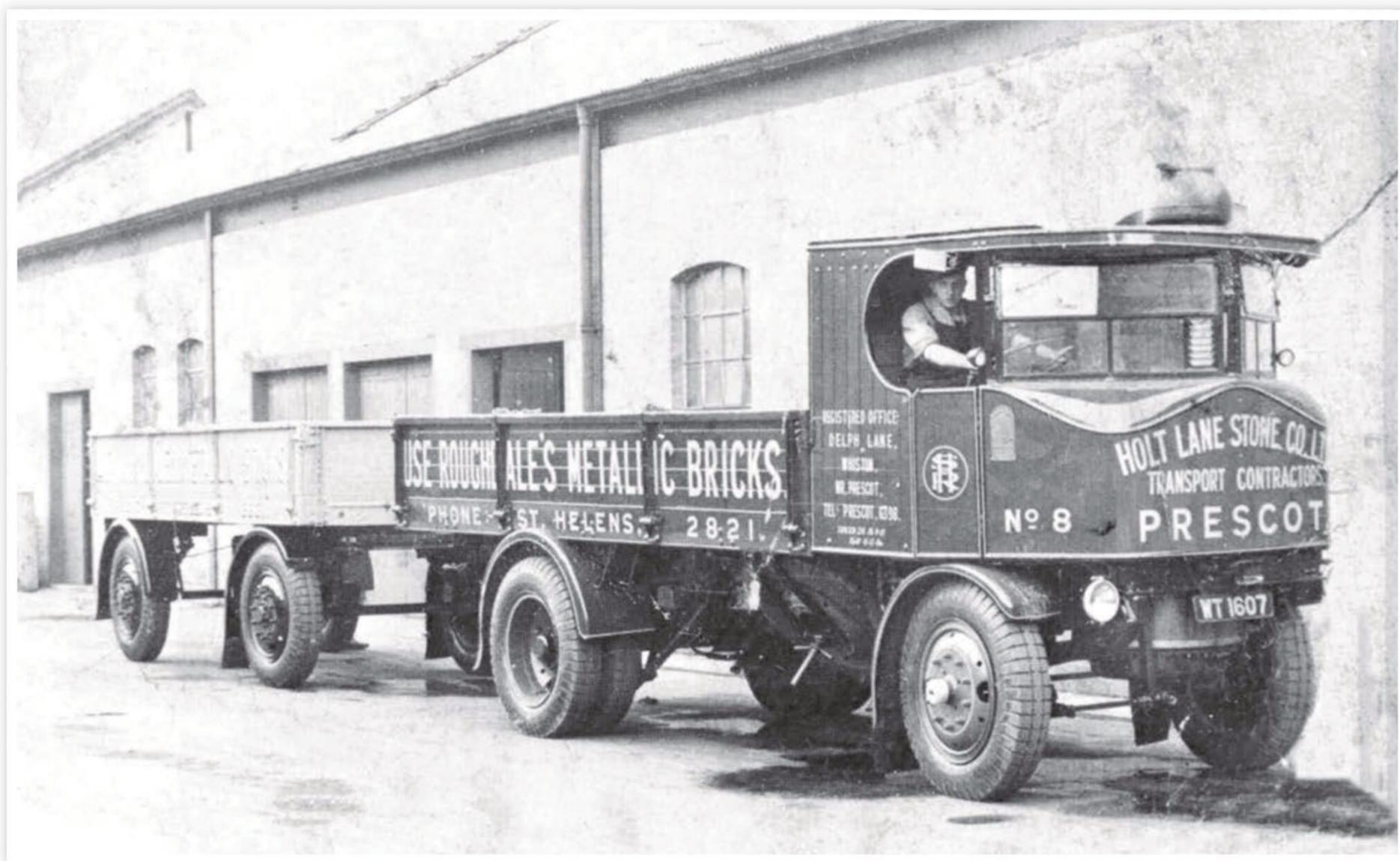


Fig. 1. Super Sentinel No. 5210 of 1924. What a difference pneumatic tyres make to its appearance.

Super Sentinel and DG waggons

It was 1923 that saw the last Standard Sentinel leave the works after a production run of over 16 years. In April of that year its successor – the ‘Super’ Sentinel – was launched amid much acclaim.

With the coming of this new waggon, the discontinued model was for the first time called the ‘Standard’ Sentinel.

During the life of the Sentinel waggon, the company had built up an excellent reputation for performance and reliability so they had ensured that its replacement was

not going to let the side down.

In their catalogue of March 1923, they even go so far as to say that (Sentinels) could have started selling the ‘Super’ Sentinel sooner as it had been undergoing testing since 1919, but that the original Sentinels (i.e Standards) ‘are still so far in advance of all other makes that we thought it well to put the new design through further strenuous tests so that its advantages to the user should be complete. The tests are now completed and the waggons are proved to the last details.’ Typical manufacturer’s hype.

No doubt, with the end of the Second World War in 1918, there would have been a pent up demand for waggons and no manufacturer in his right mind would stop production of a vehicle that was selling well, with the loss of output during the changeover period, until the slowing up of the market needed a boost – and what better boost then to introduce a new model.

And this really was a new model. It is beyond the scope of this article to give the specification of the new waggon – which owed nothing to its predecessor. However, a brief mention must be made of its major components.

The new design of the engine still had bores of 6¾in but with the stroke reduced to 9in from 10in to give the engine increased rpm. A new design of boiler was fitted but with the same working pressure of 230lb per sq in. Final drive was by two light chains driving on large sprockets, instead of one heavy chain driving on a small sprocket. The steering gear was redesigned with everything on the new wagon having the appearance of being ‘beefed up’.

Water was carried that under normal (170 gallons) conditions would give up to 50 miles while the coal bunker carried sufficient for 150 to 200 miles.

But the main selling point was that all of the major improvements that came on the ‘Super’ commanded exactly the same sales

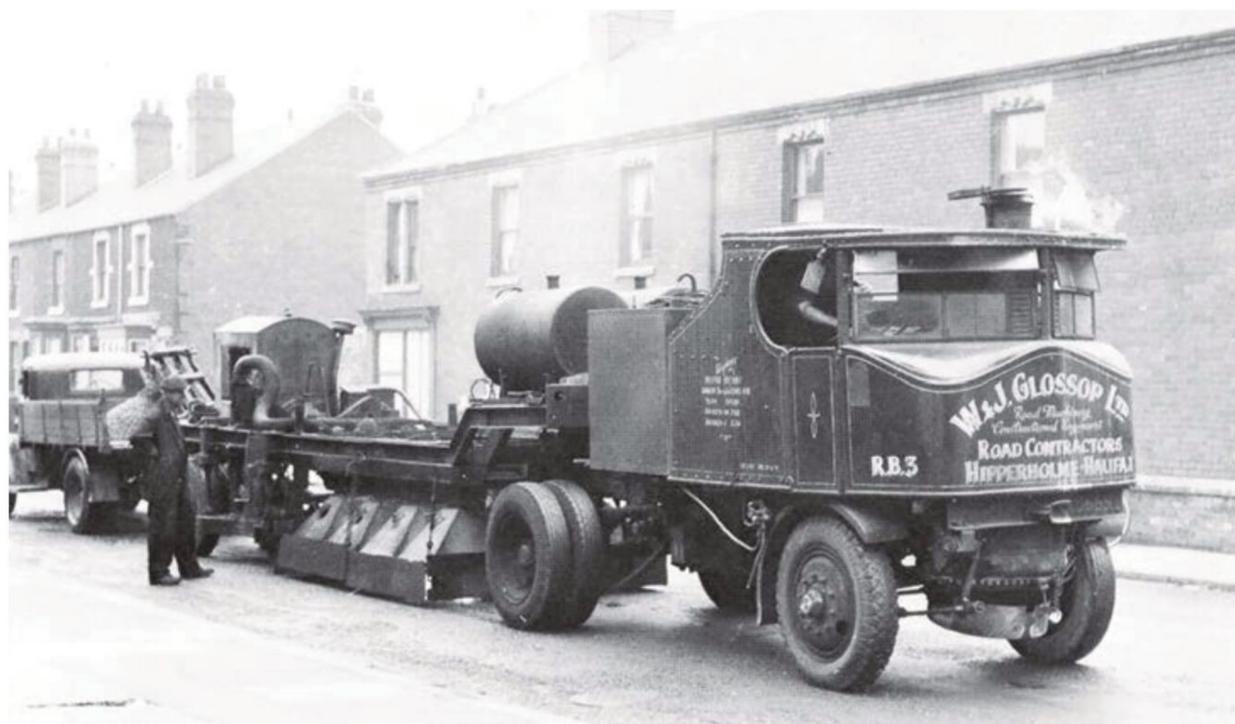


Fig. 3. Super Sentinel No. 6400, when owned by W&J Glossop Ltd, working as an articulated road resurfacing vehicle.

price as the old Standard vehicle!

Fig. 1 shows my earliest numbered waggon in the latter years of its life – by which time it had been fitted with pneumatic tyres, which when compared with some of the photos rather belies her age. Built in 1924, 6-ton waggon No. 5210 was registered WT 1607 but its owner for the first eight years of its life is not recorded. By 1932 it had been sold to the Holt Lane Stone Co Ltd of Prescott, Lancs, where it became No. 8 in their fleet. This was to be the last recorded owner.

Fig. 2 was taken at Sentinel's stand at The Royal Agricultural Society's Show at Chester in July 1925. No. 6156 was a 6-wheel articulated waggon, built in 1925 and sold to E.R Debenham of Bladen Farms of Briantspuddle, Dorset. Here it was No. 17 in their fleet, where it received the registration PR 5041. No further owners are recorded and it was last licensed in 1929.

Super Sentinel No. 6400 of February 1926 was adapted for use as a tar sprayer, being sold to Topham Bros (Manchester) Ltd, where it received the registration BA 5665 and became No. 17 in its fleet (Fig. 3). In 1937 it was sold to W&J Glossop Ltd of Hipperholme, Halifax, West Riding, where it became No. 120 in its fleet. It worked with Glossops until being lucky enough to be sold into preservation in March 1956.

Fig. 4 depicts Super Sentinel No. 6606, built in October 1927 and sold to Gardiner & Tidy (Farrand's Cherry Garden Wharf)

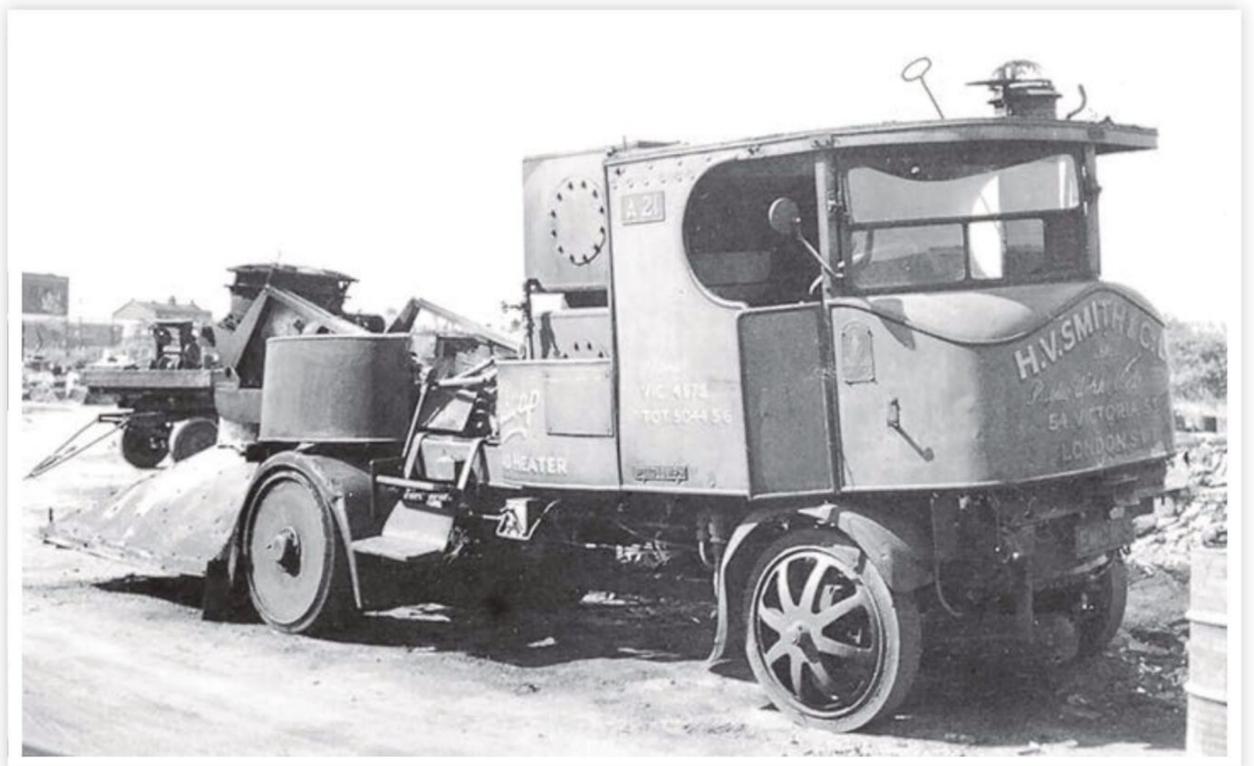


Fig. 4. From its appearance, Super Sentinel No. 6606 was unloved and unwanted in 1953.

Bermondsey, London, and registered YU 771, becoming No. 4 in their fleet. In 1936 it was sold H.V Smith & Co Ltd of Tottenham, Middlesex, who was still the owner when this photo was taken in 1953 of it in a much unloved and unwanted condition.

On Friday November 4, 1927, the new 'DG' (double-gear) waggon was introduced to the transport industry.

To look at, it was virtually indistinguishable from the 'Super' but there the comparison ended. Modifications to the boiler had been made and a new design of engine fitted, which was basically the 'Super's' engine modified to incorporate

2-speed gearing. The bore and stroke had been reduced to 6in and 8in respectively.

This was the first Sentinel waggon to have gearing giving two road speeds. According to the company, it had undergone two years of intensive testing before being 'let loose' on the market with the result that it was well able to uphold Sentinel's mantle of reliability.

Meanwhile the 'Super' was to stay in production alongside the new 'DG' right until 1932.

Our first 'DG' photo (Fig. 5) shows DG4 tipper No. 7317, which was built in 1928 and sold to J.C Chipping & Co of

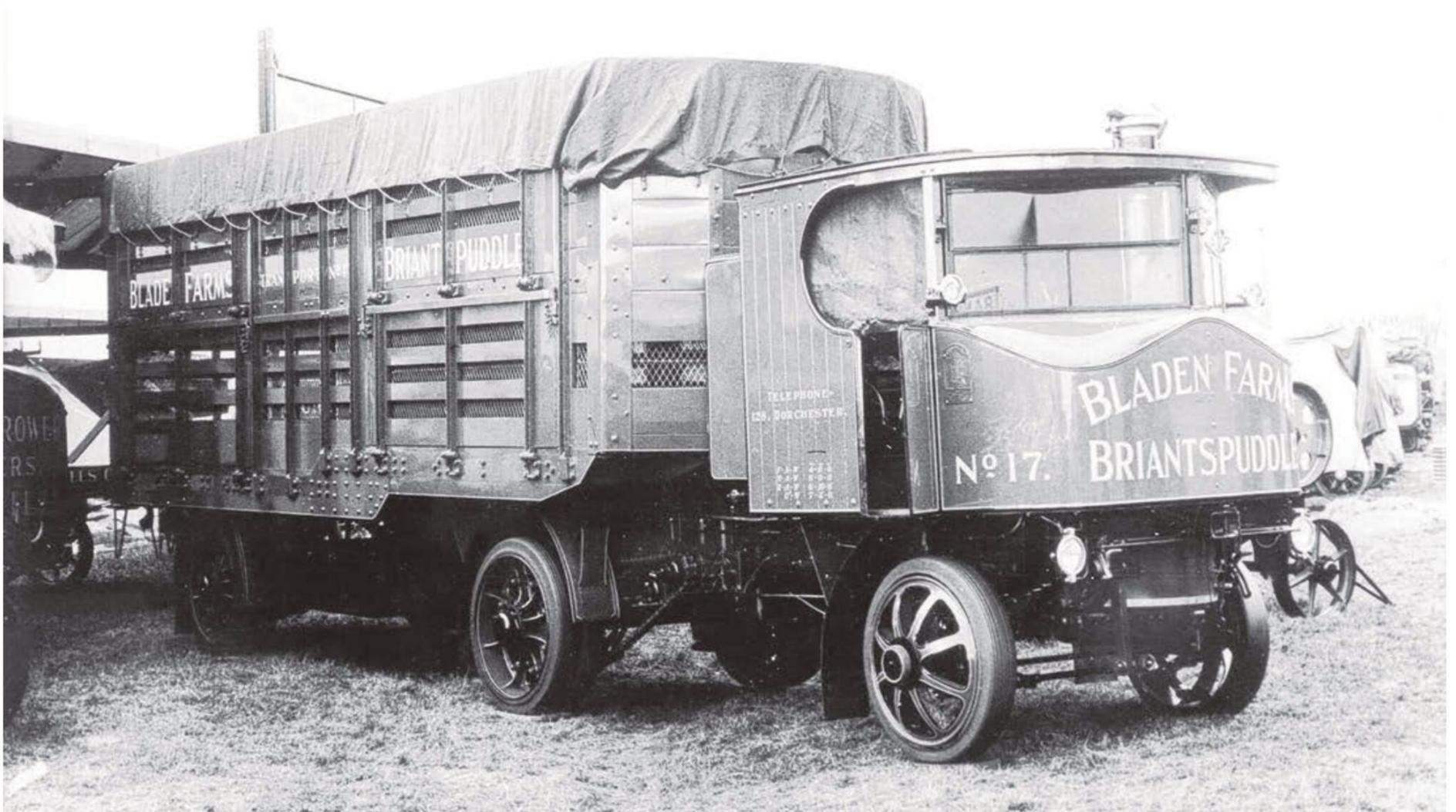


Fig. 2. Super Sentinel 6-wheeled articulated waggon No. 6156 on the company's stand at the 1925 Royal Show.

STEAM WAGONS

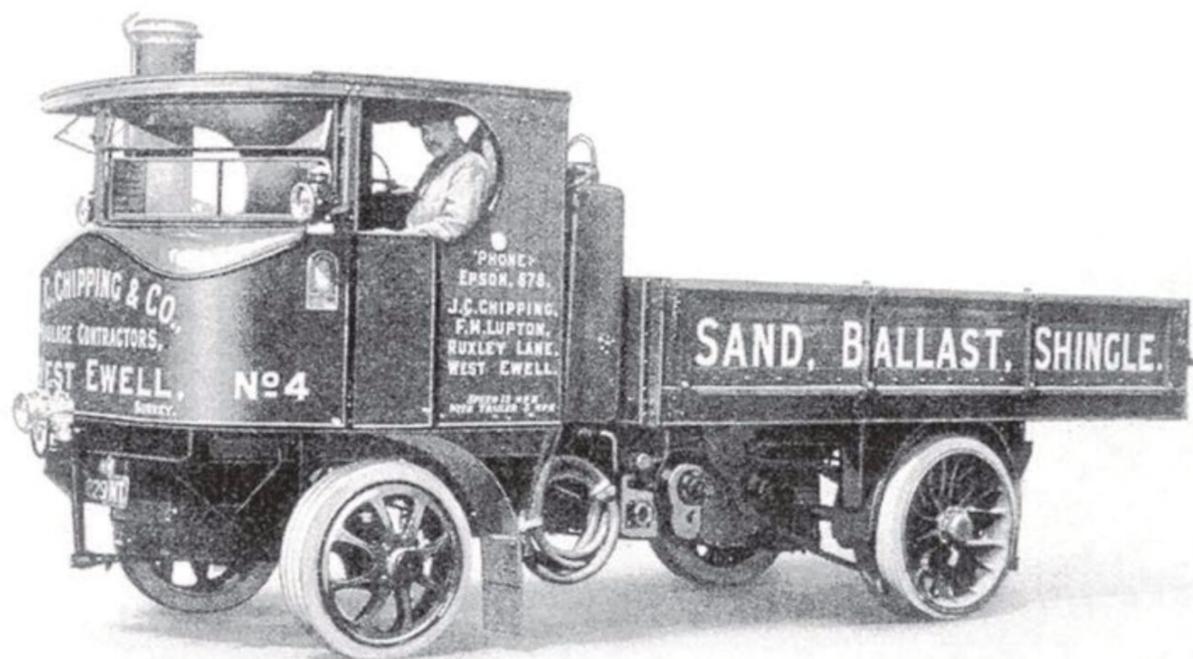


Fig. 5. A posed photo of DG4 tipper No. 7317 on trade plates prior to delivery to the aptly-named Chipping & Co of West Ewell.

West Ewell, Surrey, where it received the registration PH 9444, becoming Fleet No. 4.

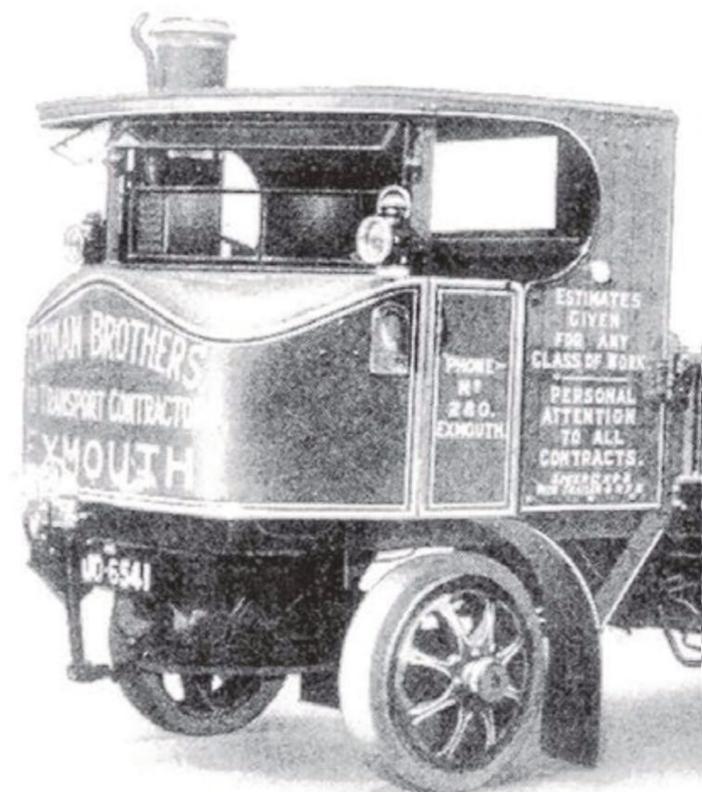
In 1933 it was sold to W.E Chivers & Sons of Devizes, Wiltshire, who were to be the last recorded owners.

Fig. 6 shows DG4 No. 7360 of May 1928. This was sold to German Brothers, transport contractors of Exmouth, Devon, where it received the registration UO 6541. It spent its working life with this company, being last licensed in February 1934.

DG4 No. 7746 of 1929 was sold to well-

known heavy hauliers Robert Wynn & Sons Ltd of Newport, Monmouthshire, where it received the registration DV 6440 and became No. 25 in their expanding fleet (Fig. 7). No further owners are recorded so we can presume that it spent its working life here.

Fig. 8 shows No. 8107 and its tipping mechanism. The DG4T was ready in March 1930 and sold to William Elworthy, quarry owner of Crosslands, Tiverton, Devon. Becoming No. 26 in their fleet it received the registration DV 4131 and was named



Duchess. The waggon was last licensed in September 1935.

Into the 1930s and Fig. 9 shows DG4 No. 8453 of Saturday January 31, 1931, and sold to transport contractor E Cartwright of Ellesmere where it received the registration UX 8110.

In August 1932 it was sold to Rupert Penley of Woburn Green; then in March 1934 it changed hands again to James Osbourne of Kilmarnock. On a date not recorded it was sold to A.J McLellan Ltd of

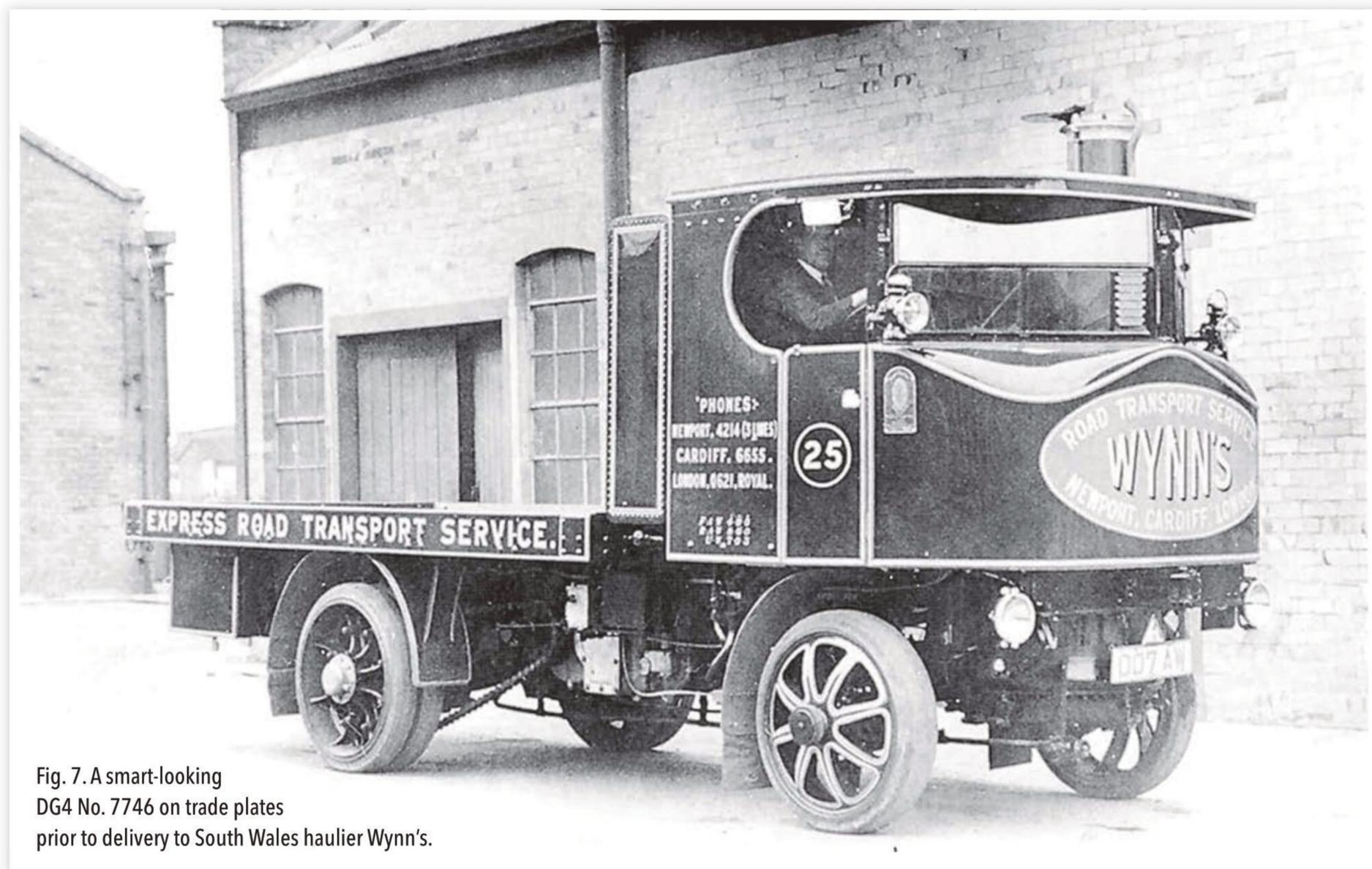


Fig. 7. A smart-looking DG4 No. 7746 on trade plates prior to delivery to South Wales haulier Wynn's.

Fig. 6. DG4 No. 7360, fitted with a dropside body prior to delivery.

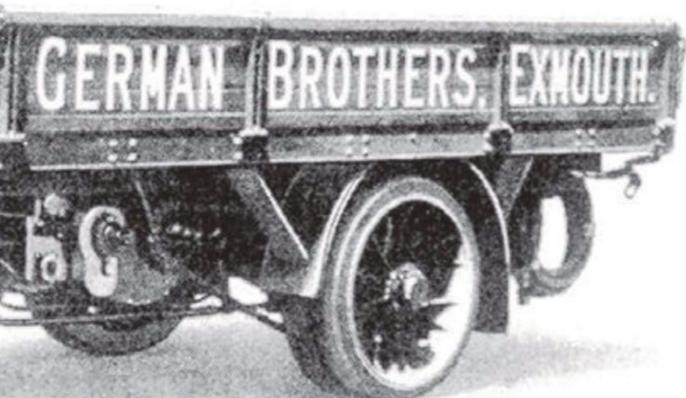


Fig. 8. Being demonstrated in the tipping position, Elworthy's quarry in Devon was the first recipient of DG4 tipper No. 8107.



Fig. 9. DG4 No. 8453 posing for its official photo outside the works before delivery to E Cartwright of Ellesmere.

RIGHT: Fig. 10. A most modern-looking steamer, DG4 tipper No. 8575 of 1931 was No. 4 in Hampshire County Council's Roads and Bridges fleet.

Glasgow, its last recorded owner.

Fig. 10 shows DG4 tipper No. 8575, which was built on Wednesday September 2, 1931, and sold to the Roads and Bridges Dept of Hampshire County Council, where it received the registration OU 9426 and became No. 4 in their fleet. Supplied new on pneumatic tyres it looks a modern and most impressive waggon. No further details are recorded.

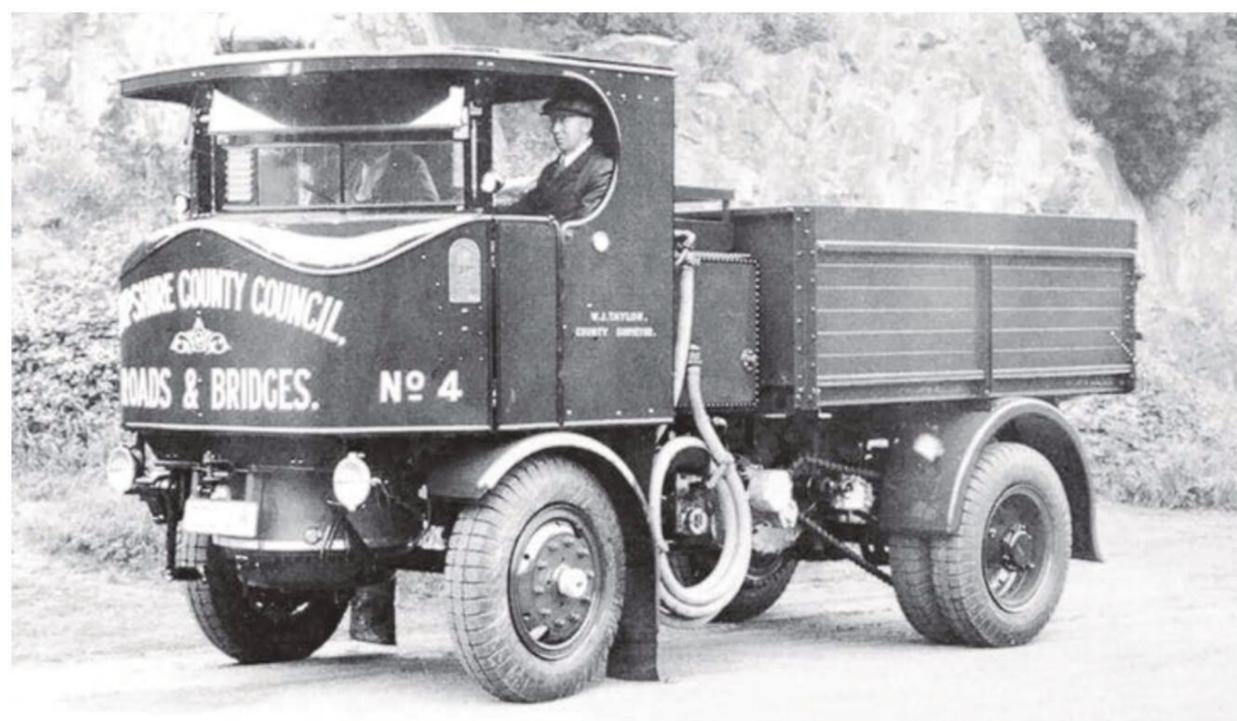




Fig. 1. S4 waggon No. 8919 of January 1934, presumably collecting Ozonic Soft Drinks for use in Fremlins' public houses at Paddock Wood, Kent in May 1948.

Sentinel 'S' Type wagons

By the end of the 1920s, orders for steam wagons were very much in decline, a situation not helped by the many surplus War Dept vehicles that had come onto the market.

No firm had done more to popularise the steam wagon than the Sentinel Co of

Shrewsbury, which had continually updated its range of models.

By the early 1930s it became obvious that a new design of waggon was required if they were to stay in business – and that it had to be something special.

Such a waggon was in its formative stages and was pushed forward with all haste

without sacrificing their usual exhaustive test programme. With the wagon market in such dire straits it was decided to bring the updated waggon to market as soon as possible and the decision was made not to wait until the London Commercial Motor Show in November 1933.

Thus in early April, representatives of the



Fig. 2. S4 waggon No. 9023 of 1934 with her proud driver and mate on April 13, 1954.

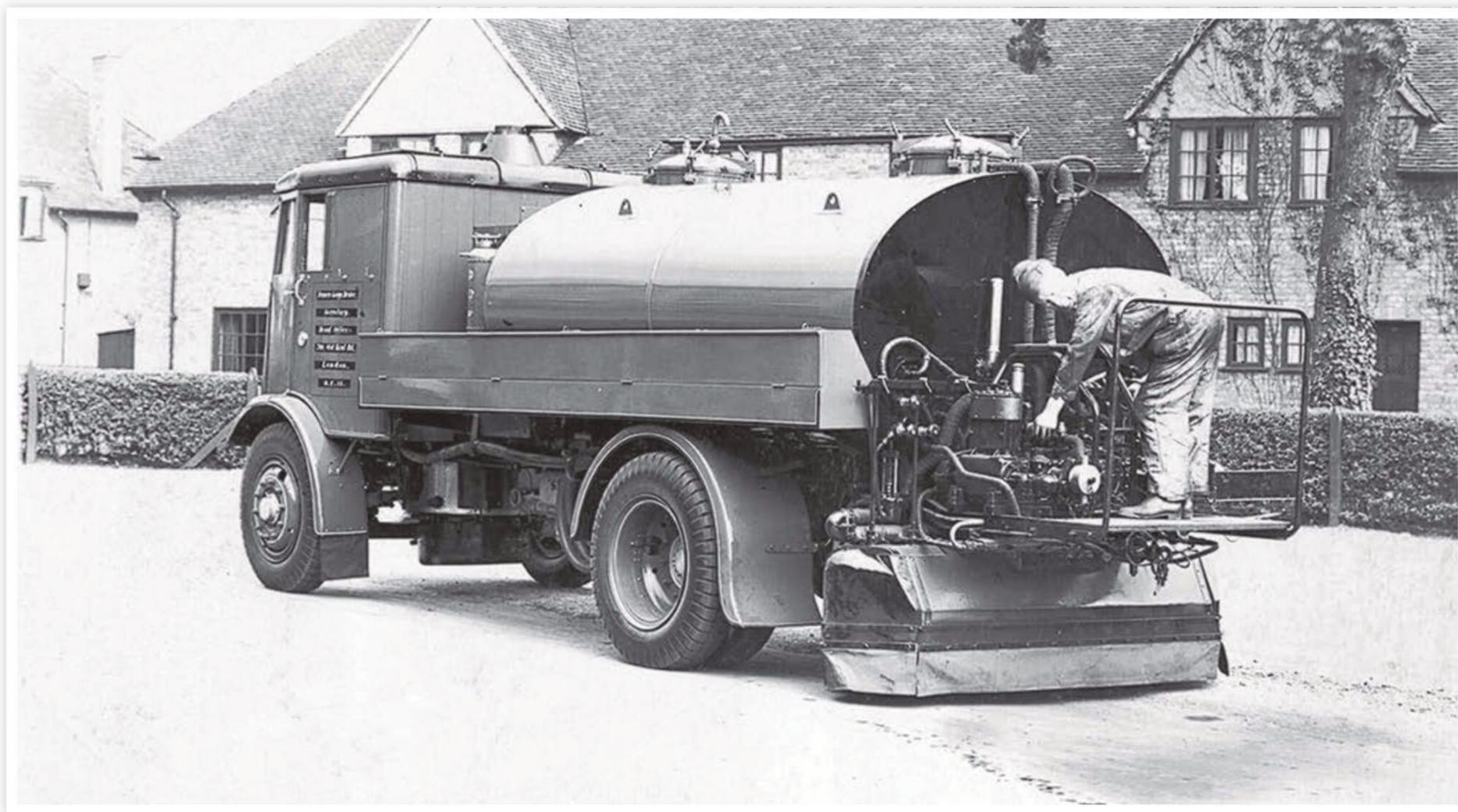


Fig. 3. S4 waggon No. 9045 when new to the South Metropolitan Gas Co.

trade press and their fleet-owning customers were invited to Shrewsbury to see the new model, which was designated the 'S' Type, signifying that it was shaft-driven. Two S4 (4-ton) waggons were displayed; Nos. 8798 and 8801.

Sentinels needed something special to boost their flagging sales and in the 'S' Type they got it. The catalogue boasted: 'A new four-cylinder single acting inline engine with a bore of 5½in and a stroke of 6in, which developed 120hp.

A boiler with larger and fewer water tubes and a double superheater working at 255lb per sq in. The feed water tanks are situated one each side of the boiler at the rear of the seats and hold a total of 170 gallons, sufficient for a normal run of 50 miles. The fuel bunkers are filled through hatches in the cab roof with openings placed at their lower ends for hand-firing the boiler. These are fitted above the feed water tanks and have a combined capacity of 5cwt, sufficient for a run of 120-150 miles.

In the model equipped with an automatic stoker, an important patented feature of the system is that the fuel feed is automatically proportioned to the water supplied to the boiler, whereby both fuel and water feeds are synchronised and that the waggon may be run continuously without any necessity for looking at the fire.

Two independent sets of brake shoes are fitted; one set applied by hand through a ratchet lever, the other by steam power,

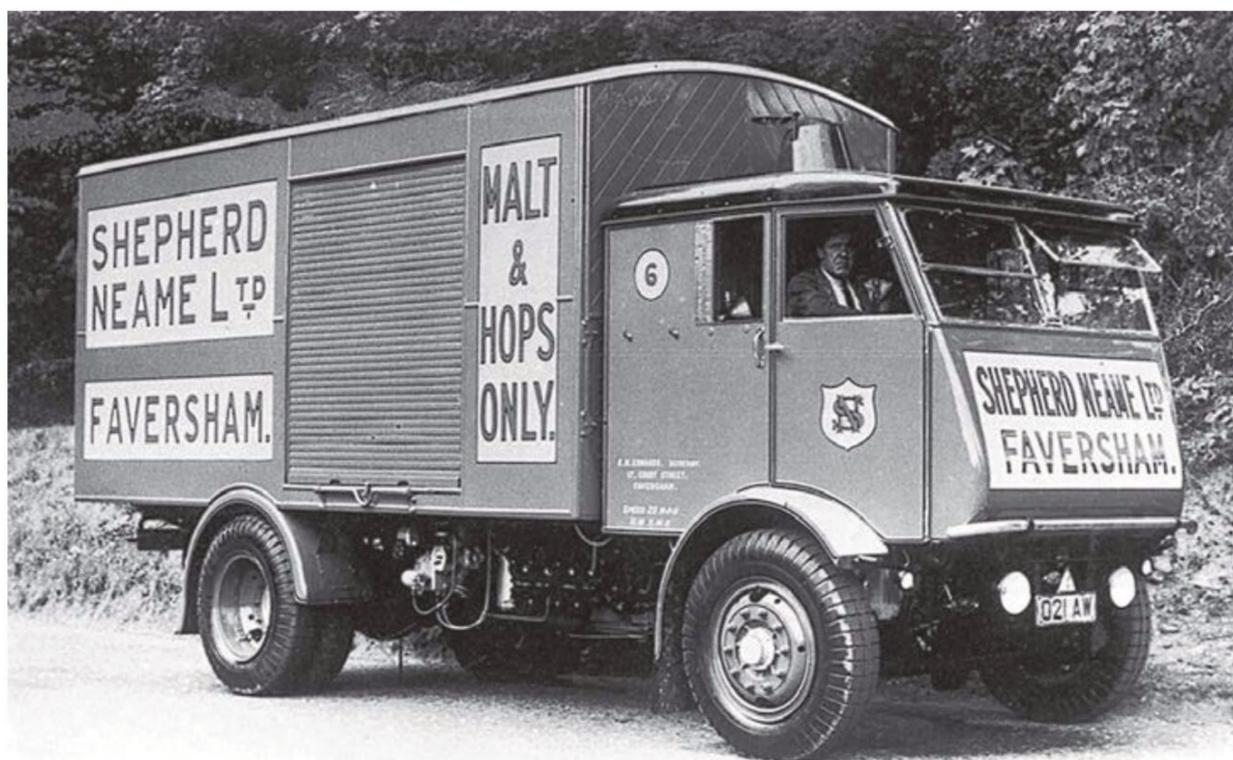


Fig. 4. S4 waggon No. 9090 of 1934 on trade plates, possibly on delivery but with the addition of black tyre paint. Perhaps it was en route to a show,

brakes being controller by a pedal placed conveniently to the driver's foot.

A comfortable saloon-type cab with safety glass windows and windscreen, with electric wiper, gives perfect road visibility. The regulator is foot operated and has a shutdown valve on the steam chest.

The brake lever, gearchange and camshaft control levers, together with the pump bypass lever, are placed conveniently to the driver, whose bucket seat is forward of the boiler and in a position to give an uninterrupted view of the road.

The blower, injector, water lifter and other cocks are grouped on the left-hand side of the driver while steam and oil pressure gauges, speedometer and electrical switch box are mounted on an electrically illuminated panel facing the driving position.

One admirable piece of equipment was a one-piece unit containing the cylinder lubricator, tyre pump and dynamo, which was bolted on the right-hand chassis member and driven from the rear end of the engine by a short universally jointed shaft.

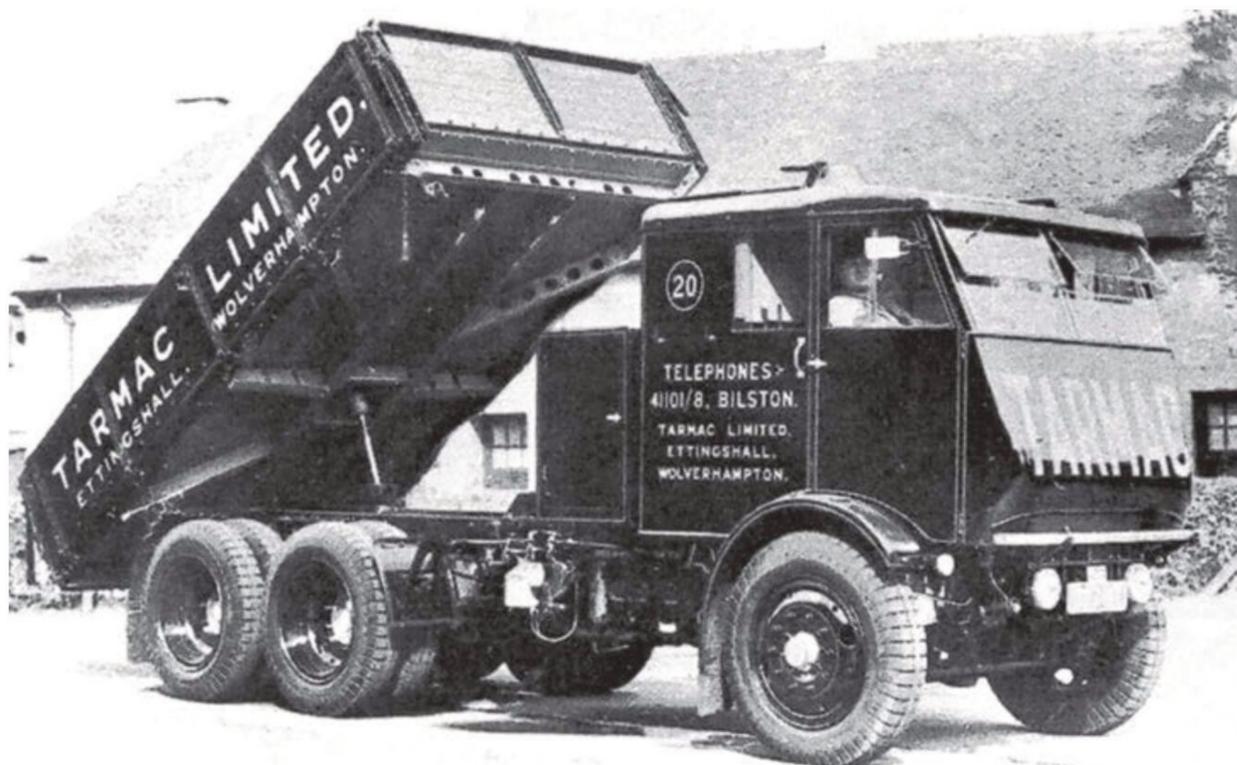


Fig. 6. S6T 6-ton tipping wagon No. 8821 of 1933, one that was lucky enough to survive into preservation.

The range for the home market was to consist of six variants: the S4 (4-ton); S4T (4-ton tipper); S6 (6-ton); S6T (6-ton tipper); S8 (8-ton) and S8T (8-ton tipper).

Fig. 1 depicts S4 waggon No. 8919, which was built in January 1934 and sold to Kingsford & Co of Barton, Kent, where it was registered JG 4192. It was later sold to R.M Woolley of Bucknall, Salop. When it was scrapped the boiler was transferred to the chassis of No. 9346 which went to the US in 1962.

Fig. 2 shows S4 waggon No. 9023 of March 1934, which sold to H Sagent & Sons of

Dover, Kent, and registered AKR 958. On a date not recorded it was sold to Wingham Engineering Co Ltd, Kent, but the photo, taken on April 13, 1954, shows it making a delivery in Dover while on hire to Fremlins Brewery.

Fig. 3 is of S4 waggon No. 9045 of June 1934, which was sold to the South Metropolitan Gas Co of Greenwich, London, where it was registered AYT 45 and became No. 7 in its fleet. It was fitted with a tar tank and spraying equipment.

S4 waggon No. 9090 (Fig. 4) was built in July 1934 and sold to Shepherd Neame

Ltd, Faversham, Kent, where it received the registration BKK 583 and became No. 6 in its fleet. It spent all of its working life with the brewers, being last licensed in December 1954.

Fig. 5 shows S4 waggon No. 9225 of November 1935, sold new to the Gas, Light & Coke Co in London where it was registered CGW 843 and given fleet No. 843, to correspond with the registration. It later passed to the North Thames Gas Board where its new fleet number was 265.

Fig. 6 depicts S6T 6-ton tipper waggon No. 8821, built on Tuesday July 11, 1933, and sold to Tarmac Ltd of Wolverhampton and registered BRF 200. It became No. 20 in their fleet. In March 1945 it was sold to the Cambridge University & Town Gas Co as fleet No. 16 and in September 1958 it was sold into preservation.

S4 waggon No. 8849 was built in August 1933 and sold to the City Steam Transport Co of Bath, registered GL 838 and given fleet No. 18 (Fig. 7). On a date not recorded it was sold to T.T Boughton & Sons of Amersham Common, Bucks, where it was scrapped in 1952.

Fig. 8 shows S6 waggon No. 8946 of February 1934 which sold to John Baxter & Co Ltd of Quaside, Newcastle-upon-Tyne, receiving the registration ATN 463 and becoming No. 63 in their fleet. It appears to have spent its working life with this company, being last licensed in December 1946, after which it was sold to James Lewis & Sons of Motherwell for cutting up.

Fig. 9 shows S6 waggon No. 9084, built in



Fig. 5. S4 waggon No. 9225, about to set off to deliver a load of coke.



Fig. 8. S6 wagon No. 8946 of 1934, new to John Baxter of Newcastle.

April 1934 and sold to Priday & Metford & Co of Gloucester where it was registered FH 8870 and became No. 7 in their fleet. On a date not recorded it was sold to S Llewellyn & Son of Ross, Herefordshire, followed by British Road Services and finally in 1951 to

R.M Woolley of Bucknall, Salop, where it became No. 10 in his fleet.

Now an S8 wagon; No. 9105 was built on Wednesday August 1, 1934 and used as a works demonstrator prior to being sold to Freeguard Bros Transport Co of Newport,

Mon, where it became No. 44 in their fleet (Fig. 10). On a date not recorded it went to 'All British Carriers', also of Newport. The next owner was E&O Griffiths of Dingestow, Mon, from where it was eventually sold into preservation.



Fig. 7. S6 wagon No. 8849 of 1933 photographed prior to delivery to the customer - not a municipal public transport undertaking as the name suggests, but purveyors of sand, gravel and Tarmac!

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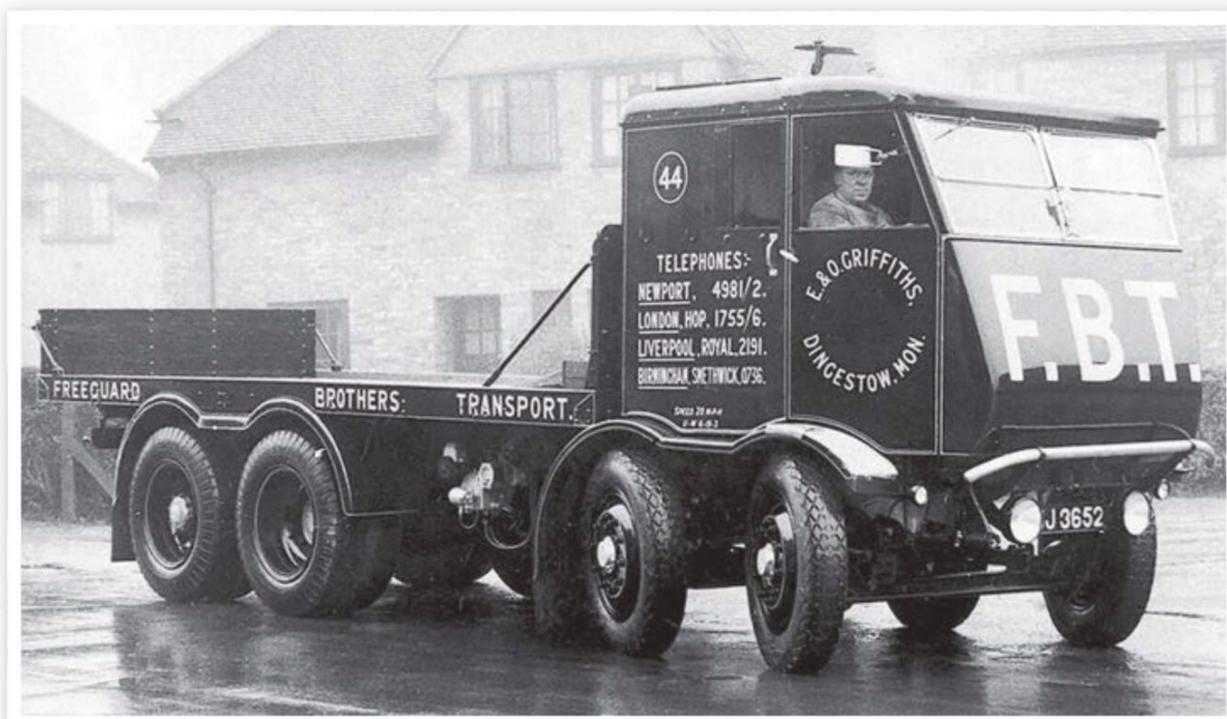
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STEAM WAGONS



Fig. 9. S6 waggon No. 9084 of 1934 was fitted with tar spraying equipment.



LEFT: Fig. 10. S8 waggon No. 9015 was the S8 works demonstrator for an unrecorded length of time.



Fig. 11. S4 waggon No. 9227 of 1935 is North Thames Gas Board's fleet No. 267 at Waterloo, London, on July 13, 1951. The stars on the wall in the background are associated with the Festival of Britain exhibition of that year.

Fig. 11 depicts No. 9227 of November 1935, originally new to the Gas, Light & Coke Co in London where it was registered CGW 845 and became No. 845 in their fleet. It too later passed to the North Thames Gas Board where it became their fleet No. 267 (see Fig. 5 for the original company livery).

The 'S' Series of shaft-driven steam waggons were the most advanced design of waggon, with a performance equal to, and in some cases better than, the most up-to-date IC-engined motor lorry.

But steam had had its day. Despite extensive advertising and many demonstrations with white-coated drivers to impress upon how clean they were to operate, they had two insurmountable disadvantages: you couldn't just get in and go, needing over an hour from lighting the fire, and secondly, with steam, the coal had to be tipped through the hatches on top of the cab roof, making it virtually impossible to avoid dust, both when taking on coal or when running. That couldn't be compared with just placing a nozzle in a petrol/diesel lorry!

There were other disadvantages of course, but these two reasons were enough to put off many small operators and fleet owners alike.

A good effort in aid of a lost cause! ■