

Corrigendum of Key Issues relating to the book, ‘The Story of the Invicta Works, A History of Aveling & Porter, Rochester’ by Michael R Lane.

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Corrigendum of Key Issues relating to the book, ‘*The Story of the Invicta Works, A History of Aveling & Porter, Rochester*’

This document is a corrigendum of key issues identified in the book ‘*The Story of the Invicta Works, A History of Aveling & Porter, Rochester*’ by Michael R Lane, published by the National Traction Engine Trust 2010. As the author of several books including histories of other major engineering companies in the steam age, e.g. Fowler, Marshall and Foster, Michael Lane’s research has made a significant contribution to our knowledge and his achievements should not be overlooked.

Errors identified not affecting the historical accuracy of the story, such as spelling, punctuation, text justification or typesetting etc., have been listed in a separate ‘Corrigendum of Typographical and Minor Issues’. Both documents have been prepared by a group of individuals with an interest in the history of Aveling & Porter and their products. The group includes owners of engines, rollers and other equipment produced by Aveling & Porter. The subject is so extensive that it is appreciated that one book cannot cover the entire history, but it is hoped that gathering information together now, while still available, will be helpful to future historians. It will also help ensure that errors are not carried forward into the future or incorporated in any new edition of the book.

Aveling & Porter traction engine/roller/portable numbers identified in the following text are the Royalty number carried by each machine produced. The generic term ‘machine’ is used in this document cover all types of production with specific descriptions such as roller, engine (traction engine/road locomotive etc.) and portable used where appropriate.

Lincolnshire Archives holds the surviving records of Aveling & Porter also Aveling-Barford. ‘The Lincs to the Past’ search engine, <http://www.lincstothepast.com/> provides a single place from which to search through these records.

Further input or comments are welcomed. These should be addressed to: aveling.editor@ntet.co.uk

Page	Column/ position	Comment
Dust sheet and throughout	Example: Page 75 Col 2,1 st line and elsewhere in text.	Incorrect use of ampersand instead of hyphen, or missing hyphen in company name – which should read: Aveling-Barford and not ‘Aveling & Barford’.
1 & Fig 9	Page 1,Col 1, Fig. 9	Page 1 refers to Richard Thomas Porter as 1834 – 1913 whereas Fig 9 states 1833 – 1913. Correct date of birth believed to be 15 September 1833.
2	Genealogy	Thomas Lake Aveling should read: ‘1856 - 1931’.
2	Genealogy	Thomas Aveling OBE MC died 1982 not 1932 as identified on Page 206, Col 1, 1 st para.
13	Col 1,2 nd para	An agreement exists in MERL Reading relating to Royalties in relation to Fowler and Aveling – and a sum of money is noted.

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13 & 211	Col 1,3 rd para	The inscription <i>Invicta</i> was sometimes in ‘plain’ lettering and sometimes (more generally) in Lombardic script. It has not been possible to determine any consistency about when, or to which type of machine, plain lettering was used although all identified are pre 1900. An example with plain lettering is on roller No.2992 in the Birmingham Museum collection. 1895 is suggested as a more realistic date after which Lombardic script was in general use. There is some repetition between the text on Page 143 and that on Page 211 which states that the <i>Invicta</i> inscription was adopted ‘about’ 1865. Page 13 is more definite on the date.
17	Col 2,1 st para	The boiler with cylinder, other brackets and parts from one of these engines has survived in Australia. These are probably from engine No.53 the Royalty plate of which was found adjacent to the engine remains. See article in NTET <i>Steaming</i> Vol. 47 Pages 130 – 134. This is the earliest known extant Aveling engine.
17	Col 2, Last para	Engine ‘ <i>El Buey</i> ’ as in Fig 15 is not fitted with cast iron rear wheels but has cast iron rims and naves with wrought iron spokes. The text appears to refer to the engine in Fig 24 which has cast iron wheels and a steersman’s awning etc. Note that the engine’s name is translated on Page 17 as ‘ <i>The Ox</i> ’ whereas the Fig.15 caption refers to it as ‘ <i>A Bullock</i> ’.
19 - 23	All text	Despite the Chapter title these pages refer to gear driven not to chain driven engines - following the introduction of No.541 in 1870 - and are not really part of the chain driven engine history. It is unclear when the last chain driven engines were made. Change may have been more quickly implemented on those types of machine with frequent sales as appears to be the case with other Aveling construction changes. A contemporary photograph identifies that ploughing engine No.700 of August 1871 was chain driven.
22 - 23	Col 2 et seq	This makes no reference to the fact that the 10NHP engine involved had wheels with ‘diamond-shaped depressions’ in the rear cast wheels – which were illustrated in another contemporary illustration in <i>The Graphic</i> that was not used. Only one engine (No.833) still exists with such wheels – in Yorkshire - and no mention is made of either fact in the book.
19 & 20	Page 19, Col 2. Page 20, Col 1, 3 rd para	Text refers to this 5NHP engine (No.541) as single cylinder (as clearly shown in Fig 16). On Page 20 it is incorrectly identified as having duplex cylinders.
22	Col 1,2 nd sentence	There is no previous reference to the Aveling - built dynamometer so presumably this is referenced in Rick’s paper to the I Mech E?
26	Fig. 27	This illustration is repeated at Fig.99.

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Page	Column/ position	Comment
26	Fig. 27 and Fig .99	No.542 was new in 1871.
30	Col 2, 23 rd line	Total of 86 should be 85, since one was renumbered as stated in the Appendix.
35	Col 1, 1 st para	Reference to ‘Appendix 3’ should read: ‘Appendix 4’.
36 - 38	Text	Refers to other than Batho type rollers – really the lead in to conventional rollers. Chapter title should have reflected content – such as ‘The Batho types and later Steam Road Rollers’.
36	Col 2 and elsewhere	Refers to ‘engines’ but the machines in question are rollers not ‘engines’ as in traction engines. There are similar references throughout the text where for clarity the terms roller or traction engine should be correctly used. E.g Pages 105 Col 2,2 nd para.2 nd line and Page 112,Col.2.
38	Fig. 42	The caption to Fig. 42 and related text on Page 38 Col 1 is believed to be incorrect. This photo shows the characteristics of a 6 ton roller, not 10 tons as per caption. It is believed that it is No.1528 (not 1538 per caption). Per Aveling records No.1528 was new to Brighton Corporation 28.05.1879, noted as a 6 ton machine, but silent on the detail of the front end other than 'plain rolls' – it is not noted as 'new pattern'. See also Page 105, Fig.120 which is believed to show No.1538 but is also captioned incorrectly.
43	Col 1	From original research, the conclusion is disputed that the engines were Nos.383/384. These were dispatched in June 1868. See Road Locomotive Society article on this subject – Journal Vol. 61 No 1. They are believed be Nos.451/438, dispatched from the works on 25 th March, 1869. Easter was the first weekend in April 1869.
45 & 46	Col 1	Refers to <i>Steam Sapper No. 9</i> as Works No.722. Fig 51 caption indicates <i>Steam Sapper No. 9</i> to be Works No. 939.
47 & 49	Page 47,Col 2. Page 49. Col 1	Page 47 refers to No.2058 supplied to Aldershot and on Page 49 (which repeats the detail to an extent) it is noted as supplied to Chatham. Aldershot is believed to be incorrect.
47 & 49	Page 47.Col 2. Page 49 Fig.54	No.2105 is referred to as being 8NHP but was 6 NHP.
48 & Appendix 5	Col 2	<i>Steam Sapper No. 18</i> is not identified as such in Appendix 5.

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48 & Appendix 5	Col 1	Refers to Royalty No.2105 as the last Steam Sapper but it is not listed in Appendix 5. Also refers to No. 2105 as <i>Steam Sapper No.7</i> . Col Nowers’ book – <i>Steam Traction in the Royal Engineers</i> – lists No.832 as <i>Steam Sapper No.7</i> - as does Appendix 5. It is possible, but not confirmed, that No. 2105 was <i>Steam Sapper No.23</i> of 1885 (to be in date sequence).
48	Col 2	There is no clear link between the Max Eyth ‘big wheel’ siege engine description and Aveling & Porter.
50	Col 1,2 nd para	No.3220 was not <i>Steam Sapper No. 23</i> . It carried the name <i>Steam Sapper No.3</i> as on a contemporary photograph. It is not listed in Appendix 5.
53	Chapter 5. End notes	The only end notes that can be found in the text are 1, 3 and 4. Note 3 is on Page 56, Col 2, 3 rd para with 4 after that on Page 54, Col 2, 2 nd para. The end note 4 on Page 54, Col 2 does not relate to Note 4 on Page 69.
53	Col 2,2 nd Para	See Page 179 comment concerning SGND tractors - more than one was built.
53	Col 2,2 nd Para	Reference to elimination of angle iron. There were fundamental changes in construction about 1893 (not only in boilers) but also with the use of flanged plates in tenders and spectacle plates, also in the design of fittings etc. J.M Preston’s <i>Aveling & Porter Ltd</i> book refers to hydraulic presses being installed in 1893. In addition at the turn of the century the boiler design for traction engines and road locomotives changed such that the smokebox was not formed of an extension of the boiler plate and not lagged as hitherto. However, some ploughing engines were still being made in the old style some years later.
53	Col 2, Last para	Whilst early engine wheels were cast iron, these were followed by wheels with: - cast iron rims and naves and wrought iron spokes - and then - wrought iron (later steel) rims and spokes and cast iron naves. Both the second and third types were supplied as options in the 1880s/1890s.
53/54	Last sentence P53	Fore-carriage construction of engines up to 1884 and possibly a little later, was wood mounted on a wrought iron axle and not wood alone as might be inferred.
54	Table top of page	These details are representative of engines built later than the early 1890s at which time e.g. the 6NHP single cylinder traction engine boiler pressure was 110 psi.

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54	Col 1	It is not correct to state that water lifters were fitted to all machines. (Aveling & Porter described them as elevators) Certainly by 1911 they were an ‘extra’ and were only fitted when ordered. Corporation/Council engines/rollers generally did not have them fitted since local authority hydrants were available.
54	Col 1,1 st para	Generally on 6/8NHP engines, at least by the mid1880s/early 1890s, the handbrake did not work on the inside of the wheel but with a brake band on a separate ‘drum’.
55	Fig. 60	It is understood the engine was actually restored by Aveling-Barford and not by the Science Museum.
58	Col 1,2 nd para	Reference is made to a few single cylinder traction engines being built with left hand cylinders over a 20 year period. The arrangement was first exhibited at the Smithfield Show 1883 (as mentioned in <i>Steam on the Common Roads</i> by Fletcher). Traction engines with this cylinder arrangement were sold worldwide and several survive in the UK, Australia and New Zealand – the earliest known being No.1995 of 1884 and the latest No.6619 of 1908 – a 24 year period. Surviving roller No.6340 is fitted with a left hand cylinder. It should be noted that early Aveling single cylinder ploughing engines were ‘handed’ with one engine of a pair having a left hand cylinder. The reference to narrow engines should bear in mind that whilst the inside gearing gives a compact arrangement, the overall width of the engine is set by the boiler diameter (29” for 6NHP). This dimension plus the wheel widths sets the overall engine width rather than whether the cylinder is on the left or right hand. The real reason for the left hand cylinder arrangement is not known.
59	Col 1,3 rd para	Throatplate cracking on Aveling boilers was not confined to ‘cheap Belgium steel’ as might be inferred; the 1930-series rollers had the steering assembly mounted from the barrel to alleviate this problem. The piston valve rollers were noted for this caused by thinning of the corners when being pressed.
59	Fig. 66	Should read: ‘A typical 4-shaft Aveling traction 8NHP traction engine of the 1880s. The engine shown has a cast iron footstep on the boiler which was an 8NHP standard fitting but not on 6NHP engines. The combined wood/wrought iron front axle assembly arrangement with a stay to the firebox throatplate had been superseded by 1890 as, for example, on engine No.2603.
59	Col 1,2 nd para. Fig. 67	Refers to Pickering governors - but Aveling & Porter did not fit Pickering governors as a standard as suggested in the footnote to Fig. 67. During the early period, Watt-type governors were fitted and later (1880s?) it was then normal for Aveling & Porter to fit their own ‘new pattern’ or ‘cross-arm’ governors working a ‘butterfly’ valve within the cylinder casting. It is not unusual to find Aveling engines subsequently fitted with Pickering governors by their owners. Pickering governors were fitted (as an extra) during the piston valve era.

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60/61	Fig. 68 and Page 60 Col 2,3 rd para	The tandem compound traction engine No.2699 is actually pictured hauling wagons of sawn timber in the Daylesford area of Victoria, Australia. The book details have been confused with those of another photo of this engine (not used in the book) where it is parked in front of James Smith’s works. No.2699 was displayed at the Royal Agricultural Society’s Show, Melbourne in August 1891.
60	Col 2,1 st para	The Burrell Single Crank Compound patent dates from 1889, but the first example was built 1887.
62	Col 2,2 nd para	Text indicates that all 14 KT’s were sold to Ireland or Australia. However, extant No.11137 was new to Moray County Highways Board (Scotland).
62	Col 1,1 st para & Fig. 70	Refers to this engine having a belly tank, which it hasn’t in the engraving Fig.70. The illustration is repeated at Fig 87. See also inconsistency between Nos. 3039 and 3035 as quoted on page 112.
63	Fig. 71	Caption refers to ‘the first of 14 traction engines built with piston valves’. Since Page 62, Col 2, para 2, refers to the compound KT engine, it should be noted that No.10437 is a single cylinder ‘JT’ type.
63	Col 2,1 st para	The ‘conflicting stories’ can be resolved by reference to specific detail in the Royalty Books held at the Lincolnshire Archives.
63	Col 2,2 nd para	Number of DT’s supplied was 74 not 72 – and see also the conflicting number of 70 given on Page 181.
64	Figs.72 and 73	The engine shown in these images in traction engine and roller form, fitted with side (outside) slide valves, is of the period circa 1904/5, not 1896. Note that the caption to Fig.70 states that: ‘In 1902 the Fowler design overhead valve cylinder was replaced with Aveling’s improved design with outside slide valves’; this date is confirmed by the contemporary sales catalogue. Some ploughing engines were however produced a few years later with overhead valve cylinders.
63	Page 63 last sentence	By 1889/1890 the 6NHP engine cylinder size was 8” x 12” stroke – not 10”. (as per Nos.2524 and 2603)
66	Fig. 75	Captioned as No.2096; this illustration is repeated at Fig. 86, and there identified differently as No.2081.
67	Col 1, 3 rd para	Sir Thomas Boughey lived at Aqualite Hall, not ‘Agulate’ as shown.
68	Col 2 text	One of these 10NHP single cylinder engines is still in existence. No.833, with a single speed and no compensating gear, was at an unknown date exported to Australia but has since returned to the UK and has been restored to working order.

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71	Table top of page	Unclear that this refers to General Purpose engines – See text in, Col 2, para 3 previous page.
75	Col 2 text	No.913 is definitely a new design – such as pictured; the flywheel is on the right hand side of the engine – a unique feature which is not mentioned. (See Fig. 84).
75	Fig. 83	Caption states that No.1982 was built for Lord Tatton’s estate in Cheshire; Col 1, para 2 states that it was built for Lord Egerton of Tatton Park.
77	Fig. 86	See note re page 66; same drawing as Fig.75 but now captioned as No.2081.
78	Fig. 87	Repetition of Fig.70, Page 62.
78	Col 1,3 rd para	No.2327 was exported to Australia where the remains survive.
79	Col 1,13 th line	The reference to ‘Hosken, Trevithick & Polkinghorn’ has the correct spelling - not ‘Polkinghorne’ as in two previous references to the firm on pages 75 and 78.
83	Col 1,5 th line	No.5192 is currently UK based and restored to working order.
84	Fig 93.Caption	The footnote refers to four tractors but to fit the photo to the page only two of the three in the original photograph are shown. Four were supplied to the Theatre. ‘Theatre Gemier’ should read: ‘Théâtre.
85	Col 2, 3 rd para,7 th line	There were two ‘local authorities’ in Driffield. The text should read: ‘Driffield Rural District Council’– to avoid confusion with ‘Driffield Urban District Council’.
88	Col 1	An A&P traction engine (number unknown) was sent to Queensland in 1864. Tested on Frindsbury Hill, Strood, May 1864, hauling 45 tons. (Source <i>Mechanics Magazine</i> : 23.9.1864, p214.) In <i>The Queenslander</i> newspaper of 17 th Sept 1870 there is an engraving of a 5 th wheel A&P ploughing engine. (The same picture is used as Fig. 97, by coincidence.) This was accompanied in the paper by an article about steam ploughing. The engine isn’t referred to in the article. The article talks about steam ploughing on the Townsville Cotton Estate. Further research has shown that this, in fact, involved a 12hp twin-cylinder Robey reversing portable engine, built in 1866 or before - powering Howard roundabout tackle.

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90	Col 2,2 nd para	States 5 th wheel steering was abandoned in 1869. However No.700, new in August 1871, was fitted with 5 th wheel steering as evidenced in an extremely fine contemporary photograph of this engine in service. See article in NTET <i>Steaming</i> Vol. 49 No.1 pps 18 – 20.
91	Fig.99	Repetition of Fig.27; See note re page 26. Fig.27 caption states ‘Kent Steam Cultivation Co. Ltd’; Fig. 99 states ‘East Kent Cultivation Co. Ltd’.
99	Col 1,2 nd para	W T (Walter Thomas) Clark was a Brisbane based consulting engineer and agent who imported and superintended the installation of machinery. He was also the Queensland agent for Aveling & Porter. Aveling & Porter ploughing engines Nos.1936/7 were 16NHP single cylinder engines, not twin cylinder. See also reference to page 155.
100	Col 1,2 nd para	An engine detailed as 9ft 10in long must be wrong – perhaps 19ft 10in?
104	Col 2,2 nd para	The total of 537 single cylinder rollers built 1880 to 1889 differs by 11 with the total of export (263) local authority (218) and contractors and private (45) rollers quoted.
104	Col 2,1 st para	The text states that ‘a successful feature was the eccentric-driven boiler feed pump and combined clack valve mounted on the gear side of the boiler, which remained in use until the end of the steam era’. However, some overhead and side slide valve compound rollers and other early rollers (see Fig.120), also engines, have the pump on the flywheel side. Piston valve rollers for the period 1920 to 1922 have a boiler top feed and separate (additional) clack valve. All 1930 slide valve rollers and 6 ton PV rollers have a geared-down arrangement for the pump instead of being driven direct from an eccentric on the crankshaft.
105	Fig. 120	This engraving is incorrectly identified as No.1608. The subject engraving existed to appear in print in <i>The Engineer</i> on 11 th July 1879 (presumably made from a photo taken at least a couple of weeks earlier), so cannot be of the Weston-super-Mare roller built in 1880. The subject roller is believed to be No.1538, dispatched to Shoreditch Vestry. Refer to ‘NTET <i>Steaming</i> ’ Vol. 51, No. 3, page 126.
105	Fig. 120 - caption	It is considered that the holes in the rollers were for spikes e.g. for breaking up a surface, not for the attachment of tines.
105	Fig. 120 etc.	‘Tynes’ should read: ‘tines’ here and many other places elsewhere in text. The Morrison parts book refers to them as ‘scarifier tools’.

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Page	Column/ position	Comment
105	Text	Royalty No.1760 is the oldest surviving steam roller in the UK.
108	Col 1,2 nd para	The total of 155 15 ton rollers built differs by 2 with the total of rollers quoted as export (81), local authority (66) and private owners (6).
109	Col 2,1 st para	The main feature of the Morrison scarifier was that it worked in both directions, although Norman Buncombe stated that this was not possible on hard road surfaces. The comment on Page 109 conflicts with Page 117, Col 2, 1 st para which states that the scarifier: ‘worked with equal facility either backwards or forwards’.
110	First line	There were other machines produced by A&P as convertibles, which utilised traction engine wheels in this same configuration – therefore it cannot be claimed to be ‘unique’.
111	2 nd para,4 th line	It is likely that the working pressure in that period would have been 110 psi.
112	Col 1,3 rd para	The total of 1772 10 ton rollers built 1890 to 1921 differs by 5 with the total of export (678) local authority (768) and private owners (331) rollers quoted.
112	Col 2,3 rd para	The reference to the 8 NHP DCC traction engine exhibited at Warwick Royal Show is identified as No.3035, but Page 62, Col 1, 1 st para and Figs.70 and 87 describe it as No.3039.
115	Col 1,2 nd para	Refers to the ‘two men becoming great friends’ but the text does not make it clear that these were Churchward and Grenville.
115 and 117	Last para	Reference to ‘Oxford Steam Ploughing Company’ - see comments for Page 117 in relation to this company.
116	Caption Fig 129	It is unclear as to which number it was when it had extensive trials.
117	Col 1,4 th para	The company name was the Oxfordshire Steam Ploughing Company (until 1900) and then the Oxford Steam Plough Company (Ltd from 1915) until the end of 1923.
117	Col 2,4 th para	The relationship between W.W. Buncombe, Aveling and Clayton may be incorrect. WWB is reputed to have turned to Clayton in the mid 1920s after falling out with Aveling, although following the demise of Clayton, further A&P rollers were purchased new in 1929.

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118	Fig. 132	Refers to Morrison’s scarifier. Maker’s plates on scarifiers show MORRISONS without the apostrophe. Also Page 137 Col 1, para 6 and Page 142, Col 2, para 4.
119	Col 1,2 nd para,3 rd line	The Eddison company title was Eddison Steam Rolling Company – not as shown. Inconsistency with name on Page 115, Col 2, 3 rd para.
119	Caption Fig 133	This roller is not No.2957 and is presently unidentified. It carries replica plate No.2957 which was the Belper ‘Council’ roller and was never owned by Eddisons. It is actually an ex-Lancashire Road Roller Co. machine which lost its identity when it was re-boxed – as did many other rollers owned by this firm. It is located not ‘in Derby Museum’ – as indicated and never has been – but is kept at the Midland Railway Centre at Butterley. In the 7 th line the word ‘Dept’ should read ‘Depot’.
120	Fig.134	The caption is incorrect. This is a 1930 series roller ‘AC’ type, not from 1899. Since it is a Barnes Bros roller, it was built either in 1929 or 1930 and is one of Nos.14000/1/2 or 3. The scarifier is by Price not Morrison.
121	Col 1,3 rd para	‘Midland Haulage and Rolling Co.’ should read: ‘The Midland Rolling and Haulage Co’.
121	Col 2,4 th para	For the benefit of the lay reader, perhaps it should be explained that the nominal weight of a steam roller normally bore little relationship to the actual, working order weight. Hence an 8 ton roller will normally weigh around 10 1/2 tons, a 10 ton roller will be 13 tons, etc.
123	Col 1,1 st para	Aveling financing of Eddison Steam Rolling Company purchases is evident with some surviving Eddison rollers still carrying an Aveling & Porter owners plate on the inside of the hornplate under the crankshaft. e.g. rollers Nos.10388 and 10632.
123	Col 1,3 rd para,13 th line	Sentence starting ‘Most major cities....by the end of the 18 th century...’ – should be 19 th century.
123	Col 2,3 rd para,1 st line	What were supplied were Burrell rollers – not Burrell engines (implying traction engines).
125	Fig 137	It is not known that Barnes Bros of Wiltshire operated in Hertfordshire – the photo was probably taken in Herefordshire.
126	Col 1,3 rd para	At that time these would have been sold via the French office at 6 Rue de la Victoire, Paris 9 as identified in the 1908 Aveling catalogue. The 1879 Aveling catalogue shows the Paris Office as then being at 9 Avenue Montaigne.

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127	Col 2,2 nd para	It is unlikely that any compound rollers were built with the flywheel inside the hornplates; there would have been insufficient space for two sets of eccentrics, cranks and flywheel.
127	Text	Two 4 ton rollers that went to Durban were returned to the works very soon after delivery and were fitted with an increased number of tubes (16 to 20) – and obviously new fireboxes – prior to being sent back to South Africa. It is assumed this was because their steaming capabilities, as built, were inadequate. One of these machines is now preserved in Yorkshire – see further comment below relating to Page 128.
128	Col 2	A&P No.7385 was not the smallest roller built at Rochester – others were built such as the extant ex-Durban No. 4698 of 1901 (which although also an R4, is more lightly built than No.7385). Some others to purchase rollers of this design were Hornsey District Council (London) - No.4995; Glasgow Corporation - No.4540 and Dublin Corporation - No.4558 – all much earlier than No.7385.
128	Col 1	Text states that ‘The first conventional rollers built with the flywheels inside the hornplates.... built in 1901’. But see Fig. 139 which shows a drawing for such a machine, dated 1881. It is believed that although the 2-speed gear design had been patented in 1881, rollers of less than 10 tons nominal weight continued to be built with single speed/inside flywheel. Fig. 135 shows No. 3678 of 1896 built with single speed/inside flywheel.
129	Col 1,2 nd para	Figures quoted for ‘lighter 12 to 14 ton machines’ total 651, not 659 as stated.
132	Col 1,1 st para	Amend text to read: ‘..... steam capacity <i>compared with</i> the round top firebox previously used.’
132	Col 2, text	Text implies this happened in 1909 but the working pressure of 8 ton roller No. 8506 of 1915 was 125 psi – which was standard for the time. 160psi (if correct) came much later. Test pressure of 300 psi is incorrect for 160 psi working pressure, since it would have been twice the working pressure.
134	Col 1,2 nd para	Should read: ‘Eddison Steam Rolling Co’.
135	Col 1,1 st para	Totals of French customers quoted total 28, not 38 as stated.
135	Col 2,1 st para	The relevance of the detail in this paragraph relating to the end of the First World War is unclear insofar as Aveling & Porter is concerned although the war certainly had a major impact on the Aveling & Porter market.

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135	Fig. 146	The code ‘BSDC’, if correct, indicates that this is a ‘Heavy’ – not ‘Light’ pattern – see details provided on page 133, Col 1, para 3.
136	Col 2	Most PV compound engines of tractor types ‘M’ and rollers ‘F’ and heavier were additionally fitted with drain cocks to the valve liners on the HP side. See Fig. 150 as an example. Note: Other changes made for the PV engines were as follows: Overhead boiler feed (abandoned by 1922); lighter section front forks (abandoned by 1926); rear axle diameters reduced (restored by 1926).
137	Col 1, 1 st para	Aveling relief valves are not fitted to the cylinder end covers, but are screwed into the cylinder itself and connected to the bores by an internal passage.
136/137	Col 2, last para.	The reference to the fitting of spring loaded cylinder relief valves on piston valve rollers is from the Aveling-Barford 1965 history, however the valve bore of 3/8” (for a 4NHP engine) is inadequate to prevent damage! There are very few Aveling piston valve engines surviving which have not suffered a bent crankshaft.
137	Col 1	Note ref: PV Belpaire fireboxes: The 1920 re-design was intended to increase the overlap of the rear wheels; this was achieved by narrowing and lengthening the firebox. The downside of this was that drivers were unlikely to fully cover the front of the grate area, so resulting in poor steaming. Aveling sent out the larger rollers with long shaft shovels. Information per N.D. Buncombe, 1969.
137	Additional detail	Boilers for A and B types were redesigned during this period; Drawing 8332 (dated 1922 in the margin) shows 23 tubes x 1½”od, drawing 7502 (Undated except for 1920 signature in the margin) shows 20 tubes x 1¼”od (1¼” was the standard for piston valve rollers).
137	Col 1	PV rollers featured balanced cranks but the overall gearing ratios were reduced. Cylinder diameters were reduced but the boiler pressures on single cylinder rollers were increased from 125 psi to 140; this required a different style of roller management, calling for the pressure to be maintained and the roller run wherever possible, fully notched up. Many slide valve roller drivers would run them in full forward at low pressures, a style not suited to the piston valve rollers. Note the additional text included in the boiler washout plate from approx. 1926:- ‘Maintain boiler pressure fully to red line’.
137	Col 1, 3 rd para	Corrugated firebox crowns were not in use when AGE was established; it was not until the introduction of the ‘V’/‘AV’ types from 1926 that they were introduced. They were also used for the 1930 slide valve series of rollers.

Corrigendum of Key Issues relating to the book, ‘*The Story of the Invicta Works, A History of Aveling & Porter, Rochester*’

Page	Column/ position	Comment
137	Table	The date spans of ‘Time built’ column extends beyond the manufacturing dates of piston valve rollers; this suggests that slide valve rollers may be included? (e.g. ‘E’ types were not being built in 1932)
137	Col 1,4 th para	Aveling PV liners were cast iron, not steel (per A & P drawings and inspection). Aveling piston valve bobbins were redesigned. The first piston valve rollers and engines were fitted with integral valve bobbins cast as a single dumb-bell (ref A & P No.10156). Later the two heads were separate and screwed/pinned to the steel valve rod. This was probably to simplify manufacture.
137	Col 2,2 nd para	The number of piston valve rollers quoted totals 804, not 826 as stated.
137	Col 2,3 rd para	‘The standard class A rollers ...’ should read: ‘The standard Type A rollers...’
137	Col 2,4 th para	‘The standard class B 6 NHP_compound roller.’ should read: ‘The standard Type B 6 ton compound roller...’
137	Col 2,4 th para	The number of Type B piston valve rollers quoted totals 88, not 86 as stated.
138	Col 1,2 nd para	‘The type D 8 NHP_compound roller’ should read: ‘The Type D 8 ton roller...’
138	Fig. 148	Captioned as an unidentified type BS single cylinder roller. However, the lack of external tender reinforcement for the Price scarifier confirms that this is a later period ‘E’ type roller, the 3/8” tender plating not requiring reinforcement. It is one of the earlier ‘E’ types with a single chamber pump body.
138	Fig.148 caption last line	Should refer to the ‘scarifier frame’ not the ‘engine frame’.
138 & 142	Col 1,1 st para. Col 1,3 rd para	Should read: ‘Lancashire Road Roller Co.’
139	Col 1,2 nd para, 1 st line & Fig.149 caption.	Should read: ‘Eddison Steam Rolling Company’.
140	Fig. 150	Caption ‘...post-WW2” range’ – presumably this should read: ‘.post-WW1 range’.
142	Col 2,1 st para	Text states that works closed July 1930 but Page 211 states that move to Grantham took place at the end of 1933.

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Page	Column/ position	Comment
142	Col 2,last para	Dingle’s were at Stoke Climsland, Cornwall, not as stated.
144	Fig. 156	Number should be 14037 - a new AE sold to Belgium. A&P 10437 is shown at Fig. 71 as a ‘JT’ traction engine.
144	Figs.155/6/7	The chapter does not cover this type of roller – all of which are post-piston valve era - but they have been included at the end.
145	Col 1,1 st para,4 th line	The location of ‘Chaventre’ cannot be identified and may instead be a person’s name.
145	Col 2,2 nd para	‘Barnes Bros of <u>Highbridge</u> ’ should read: ‘Barnes Bros of Trowbridge’.
145	Col 2,2 nd para.	Barnes Bros took the first four new rollers of this type Nos.14000, 01 and 02 AC and 14003 AE.
145	Col 1,5 th para	To enable comparison between the SV and PV series, it should be noted that generally the SV series were quoted as having a nominal weight 2 tons greater than the equivalent PV roller; i.e. an ‘A’ type is quoted as 6 tons, ‘AA’ as 8 tons.
145	Text	Additional significant features of the 1930 series rollers are not noted: Belpaire firebox abandoned, corrugated top with unstayed round outer wrapper. All gearing now within the hornplates - i.e. low speed gear no longer overhung. Steering shaft mounted on brackets from the boiler barrel, presumably to reduce strains on the throatplate. Front rollhead casting modified internally so that rain and condensation plus soot was now directed into the smokebox base, instead of settling on the outer smokebox wrapper plate, thus setting up severe corrosion – it took Aveling 50 years to make this simple design change!
145	Col 2	The A&P design rollers assembled at Grantham should not have been ignored as they are part of the story. It has not been determined exactly which rollers by number were assembled at Grantham but are likely to be at least 14176 onwards. Of these Nos.14176/9,14181/4/6/7 are extant. Noted that Fig.220 on page 199 continues the IC roller development at Grantham.
145	Col 2,3 rd para	The DT type did not have generic origins in the Aveling tractor design. It was a ‘DD’ type 4-shaft roller sent out (in some cases) with ‘L’ type front wheels and other tractor/traction engine features.

Corrigendum of Key Issues relating to the book, ‘*The Story of the Invicta Works, A History of Aveling & Porter, Rochester*’

Page	Column/ position	Comment
145/181	Col 2,4 th para	The references to DT’s, A’s and AV’s on page 145 do not coincide with what is known. Research has identified 74 DT’s – not a total of 70 as quoted. It is possible that the four that went to Clarke & Fauset in Brisbane have been omitted, so the implication that they all went to Noyes is wrong. Statements on pages 145 and 181 are consistently wrong. It is known that a number of DT’s were sent out with their complete roller parts despatched separately with the next shipment – but the implication on pages 145 and 181/182 is that they were all like that – which is not correct.
146	Col 2,2 nd para	The tandem was purchased by ‘His Grace The Duke of Bedford’, per the Aveling Royalty Book entry.
146	Chapter 11	A photo of the early XAC3 based tandem roller with forks and front roller under the smokebox would have been helpful as an example. An A&P works photo is available.
146	Para 4	Luton Corporation tandem No.6530: The description of this roller as a ‘convertible’ is incorrect. It should also be noted that the cylinder is similar to the XAC3/R4, but the boiler is considerably larger. The reference to this extant roller should have been positioned a couple of paragraphs later in the story.
147	Col 2,1 st para	A copy of the original specification for the St. Albans Corporation compound tandem roller is available if requested. (Source: Hertfordshire Archives and Local Studies)
148	Col 2,1 st para	Shay Tandem No. 7411 had been sold by David Spooner prior to 7/2009.
148	Col 2, 2 nd para,6 th line	The Lancashire Road Roller Company at Broadheath seems to have metamorphosed into a similar named firm which included the names Pinfold & Macdonald in 1946 located at Fenton, Stoke on Trent and by 1950 at Penny Lane, Haydock - according to Alan Duke's lists. Charles Price & Sons at Wright Street, Broadheath were proprietors of the Lancashire Road Roller Co., according to their publicity, (and the manufacturer of Price scarifiers).
150	Col 1,1 st para	The Thomson and Burrell vertical boiler road steamers were built in 1871, 50 years earlier (not 30 as stated).
152	Col 1,2 nd para	The reference to the first time Kentish Horse west of Rockies is incorrect given that on Page 163, 1 st Col, there is a reference to two chain-driven tram locos going to Vancouver Island which is west of the Canadian Rockies , and other engines went to the USA west of the Rockies. – including traction engine No.913 which survives in California.
154, 155 & 156	155 Col 2,2 nd para. 156 Fig. 166 also Fig.169 on page 156	Page 155 refers to ‘Sachs Sal’ and Figs. 166 and 169 to ‘Sal Sachs’. The correct name is Sachs Sal as in the Aveling Despatch Book. The firm of Sachs Sal was located at Craiova, Romania.

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Page	Column/ position	Comment
155	Col 1,4 th para	See the reference to Page 99 for the sentence starting ‘The great Australian landowner, J.W. Clark of Queensland.....’ Also note inconsistency in initials between W.T. Clark (correct) and J.W. Clark.
158	Fig.172 caption. Col 2,2 nd para	The caption states ‘multitubular boilers were popular’....but the paragraph at bottom right of this page says ‘no evidence that any were built’.
160	Col 1,1 st sentence	Last tramway engine was built 1926 not 1929. See text Col 1 Page 163.
160/161	Col 2,3 rd para Fig. 173	I.W. Boulton’s locomotive ‘ <i>Rattlesnake</i> ’ was not used whilst the Runcorn Transporter Bridge was being built. In ‘ <i>The Chronicles of Boulton’s Siding</i> ’ it is stated that it ‘did much work on the Runcorn Bridge and its approaches.’ This was the L & N W R railway bridge completed in 1868. The Transporter Bridge was built in the period 1900-1905.
162	Col 2, 1 st para, 10 th line	This loco (No.807) is now at the Buckinghamshire Railway Centre.
162	Figs. 175 & 176. Page 162. Page 163, Col 2,3 rd para.	The captions of Figs. 175 and 176 have been mixed up and transposed. Fig.175 is No.9449 ‘ <i>Blue Circle</i> ’ a standard gauge locomotive supplied in 1926 to the new Holborough Cement Works, Snodland near Maidstone, Kent. It worked there until April 1964 when it was donated to the Bluebell Railway. Fig.176 shows No.1740 of 1882 new to the Dunton Green Brick & Tile Works, near Sevenoaks, Kent. It was scrapped there in 1927 after 45 years continuous service. No.9449 was the very last Aveling railway locomotive built - others with later Royalty numbers being supplied earlier. It was built to the by then superseded Aveling design at the request of the works founder, William Lee Roberts, who was familiar with this type of locomotive at his Grandfather’s works, Lee’s Works, Halling, Kent.
162/163	162 Col 1,2 nd para & 163 - Col 1,2 nd para	Page 163 states that chain drive engines were built up to 1878 - but Page 162 states that chain drive was abandoned in 1876.
164/5	Text Pages 164 & 165 & 166 & 168 also Fig. 178 Caption 2 nd line	The tramway company using the tram loco was the Brighton District Tramway (Brighton and Shoreham Tramways Co. Ltd.), which ran between Shoreham and West Hove. The Aveling-Greig tram supplemented two William Wilkinson steam trams of 1884 as well as horses. The Fig.178 caption is incorrect in stating ‘the Southwick tramway in Brighton’. It should read: ‘... on the Brighton and Shoreham Tramways between Shoreham and Hove’.

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Page	Column/ position	Comment
168	Col 1,1 st para.	The text states that ‘side valves were employed after 1900’ but in Fig. 181 on the previous page it shows No. 3998 of 1897 with outside valves, crosshead trunk guides and a simpling valve. It is interesting that the use of outside slide valves on compound tramway locomotives appears to have predated the general application to road engines, rollers etc.
168	Col 1,last para and page166, Col 2	Inconsistency in that ‘all were withdrawn from service by 1884’ is not correct. The example in Christchurch was operating until quite late and certainly into the 20 th century.
168	Col 2, 6 th para	No.4430 spent its entire life with Thomas Pascall & Sons until sent to Messrs. Lynch, Strood for scrap in 1950.
169	Fig.183	No.4402, named ‘ <i>Ninety Nine</i> ’, the year it was supplied, ran on a 4’ 3” gauge line at a site isolated from the standard gauge network. Disused from 1925 it was cut up in 1938 together with the works.
170	Col 1,1 st para	Aveling No.8800 ‘ <i>Sir Vincent</i> ’ left Hollycombe some years ago. It is now at a private site near Windsor.
170	Additional text	Aveling No.4780 supplied new 1900 to Lever Bros, Port Sunlight, Cheshire was refused by the Managing Director and eventually sold in 1902 to the Croydon Commercial Gas & Coke Co., Waddon Marsh Gasworks, Croydon. Named ‘ <i>Allen Lambert</i> ’ after a Director it was used until the mid 1950’s and scrapped in 1961.
170	Col 2, 3 rd para,8 th line	‘Queensborough’ should read: ‘Queenborough’. Queenborough Wharf Ltd was actually Queenborough Port & Contracting Co., until taken over by Settle Speakman & Co. Ltd in 1930. The last sentence, which continues on to Page 171, refers to No. 7975 which survived at Queenborough until scrapped in 1946.
172	Col 1,3 rd para, last line	This engine is now back at Leiston and has been restored to working order with the help of lottery funding.
172	Note 2	‘ <i>The Chronicles of Boulton’s Sidings</i> ’ was published in 1927.
172	Note 18	Book title should read: ‘ <i>Traction Engine Locomotives</i> ’. This was by I.K.Hutchinson and published by the Road Locomotive Society, March 1981.
174	Fig. 188	Caption should refer to engine No. 5541 not 5441. Although No. 5541 was built for the Earl of Ancaster it was immediately returned as not acceptable. It was then sold on 30 th November 1904 to F. Quinell, Furniture Remover of Sevenoaks.

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Page	Column/ position	Comment
174	Col 2,3 rd para	The first line should refer to ‘Neville Grenville valve gear’ as per Fig. 189.
176	Fig. 191	The copy of this photo included in the A & P published booklet ‘ <i>Motor Tractors, Waggons & Lorries</i> ’ describes the location as ‘near Largs’.
176	Col 1,2 nd para	Boiler feed pumps – gear driven feed pumps still require an eccentric, but by reducing the speed of operation below the crankshaft revolutions they may work better.
177	Fig. 192 caption	The portable engine is not by A&P. Tom Paisley owned several portable engines, but none built by A&P. The Paisley sale catalogue lists the following portables: C & S 48750, Burrell 1475, Marshall 69778, Davey Paxman 11692 (B), Farmers Foundry 36 (B). Note (B) refers to the catalogue suggesting that the engine had a boiler report in the 1960’s, so one of these might be a candidate for the photo.
179	Fig. 196	No. 9009 was not unique as a superheated tractor. The late Viv Kirk’s GND No. 8026 (EB4746) which is extant is referred to on Page 177, Col 2, para 1.
179	Col 1,2 nd para	Text refers to the lack of proper feedback from the trade on PV cylinders for the GND tractor. However, it was not until 1925 that the ‘L’ type was introduced, five years after the wholesale redesign of the rollers. Several PV GND’s were built, so presumably this was the one design which was subject to user review – although the ‘L’ type PV design is similar to contemporary ‘D’ type rollers.
179	Col 1,2 nd para	Although the market share of steam rollers is being discussed in this paragraph the chapter is entitled ‘Steam Tractors.....’.
179	Col 2,5 th line	In the Royalty Book record sheets Aveling used the term ‘undertank’, not ‘belly’ tank as referred to here.
179	Col 2,2 nd para	By this period Aveling used the term ‘combined engine’, not ‘convertible’ as referred to here and elsewhere. As an example, No.5800 is recorded as a combined engine in the Royalty Book.
179	Col 2,2 nd para, 7 th line	Refers to ‘ordinary traction engines’. Given the context it should refer to ‘ordinary tractors’.

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Page	Column/ position	Comment
181	2 nd para	Reference to ‘sloping firebox door’ is incorrect, the reference should be to the ‘sloping smokebox door’. The DT was a 4-shaft engine; the ‘M’ type was a three-shaft engine, so there is no commonality with it. The Royalty Book pages for those engines dispatched complete, refer to ‘L type front wheels and paddle rail’. Refer also to comments on this subject - Page 145.
181	Fig.199	Conversion would be to a ‘D’ type roller; the engine, as sent out, was ‘DT’ type. Since these engines had enlarged cylinder bores of 4 1/2” hp x 6 7/8” lp x 8” stroke they should be more correctly described as type ‘DD’ (although not referenced as such on the Royalty Book entries). The Royalty Book entry for this engine (11455) confirms that all roller gear was sent out from Rochester under separate invoice.
182	Fig.200	Correct roller number is No.11798, not as per caption.
182	Col 1,1 st para	Records have been accessed at Lincoln which list all the items sent, or not sent, by Avelings for each engine to Australia. Those items not sent were made in Australia.
182	Col 2,1 st para	The ‘L’ type tractors supplied to Kent County Council were unique in that they were built with deep undertanks as per the ‘M’ type.
182/3 (refer also to P.145)	Col 2,3 rd para	It is not clear why the ‘V’ and ‘AV’ rollers were included in this chapter; although the ‘V’ type was 3-shaft, there is little else in common with the tractors. In addition to No. 12826, note that 4 shaft ‘AV’ No.14045, is extant in Australia at the remote Mungalalu Truscott Airbase, Anjo Peninsula, Western Australia.
182	Col 2,last para	Total quoted is 27. There were 28 V types.
183	Col 1,3 rd para	Total quoted is incorrect; there were 19 ‘AV’ types not 20. One was re-numbered.
183	Col 1,3 rd para	A single roller (not an engine) also went to a UK customer.
185/186	185 Fig.205 & 186 1 st Col.2 nd para	This implies No.7899 was converted to showman’s use in the 1920s/30s when, in fact, it became a roller in its working days and was remodelled as a showman’s style tractor in 1967 by Claude Jessett. See also Fig. 205, page 185.
186	Traction wagon	Early wagons were not sprung. See illustration of an 1874 wagon in J.M. Preston’s book <i>Aveling & Porter Ltd</i> - Page 19.

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Page	Column/ position	Comment
187	Col 2,2 nd para	Fodens entered the steam wagon market in 1902 not 1905 as stated. No.504, a prototype was built in 1901. No.524, the War Department Trials wagon and No. 530, were sold to Silver Springs Bleaching and Dyeing Co. and were built in early 1902.
188	Col 2, 3 rd para	Not all Aveling wagons have Belpaire fireboxes. As examples, Nos.7758 and 7764 did not, but No. 8768 does.
188	Col 2,3 rd para	No mention of the inclusion of a double high system valve (Ref extant A & P No.9282). All other A&P compound machines - rollers, tractors and TE’s - had a starting valve only.
189	Fig. 210 caption	Wagon No. is 9282, not 2982 as shown in the caption.
190	Col 1,4 th para	22 wagons were sent to Australia, not 20 as shown.
190	Col 2,1 st para	Correct name is ‘Sentinel Waggon Works Ltd’.
190	Col 2,2 nd para	Correct name is ‘Yorkshire Patent Steam Wagon Company’.
190	Col 2,Lines 15 – 19	Legally at this time (1920s) the speed limit for all heavy vehicles, motor and steam, was still the 1904 Heavy Motor Car Order limits (see comment re page 200 below).
190	Col 2,2 nd para	The suggestion that Sentinels (and others) etc., could achieve 60mph is incorrect; possibly 50 mph unladen (although illegal). It is questionable to state that Yorkshire Wagon Co. (see correct name above) were less successful than (say) Garretts), they made more undertype wagons than Fodens and in producing 1082 wagons were the second greatest producer of undertype wagons after Sentinel.
191	Fig. 213 caption,4 th line	‘y-spoke’ should read: ‘Y-spoke’.
192	Col 1	‘A few more years’ is an understatement when Sentinel’s supplied their last wagons in 1950.
194	Col 1,2 nd para	When the first diesel engine was made, the company name was Maschinenfabrik Augsburg AG. The spelling of ‘Machinenfabrik Augsburg’ in the text should read ‘Maschinenfabrik Augsburg AG’ and ‘MAN’ deleted. It became MAN (Maschinenfabrik-Augsburg-Nurnburg) in 1908.

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Page	Column/ position	Comment
194	Col 2,2 nd para	Repetition of the circumstances of death of Diesel. The River Schelt is also referred to the same paragraph as the River Schelde. The Flemish/Dutch name for the river is Schelde and it can be called the Scheldt.
196	Col 2,1 st para	Barford & Perkins did not produce the world’s first motor roller in 1904. That honour went to France at least two years prior to that – which had a Dudbridge single-cylinder engine supplied from Gloucestershire in 1902. The roller had probably been working for at least two years with the French engine that was replaced by the English engine. See Shire Album – <i>Road Rollers</i> .
196	Col 2,1 st para, last line	The word ‘balance’ should presumably read: ‘ballast’.
196	Col 2,2 nd para	As can be seen from Fig. 230, the Pelican Yard Works were north-west of the main works, also the North Kent railway line. The North Kent railway line shown was not the main line, this being located to the east of the works and not shown on Fig. 230. These were all Southern Railway lines from 1923.
196	Fig.215 caption	Add to caption: ‘Note the twin-skin roof.’
197	Col 1,1 st para	Elsewhere it says the Brun firm operated in Egypt. Since the customer was Mme. Brun, the supposition of the ultimate destination of Grenoble is probably incorrect since the firm is mentioned as having ‘to operate in Switzerland, Italy and North Africa ...’ – the much more logical destination would have therefore been North Africa (Casablanca) where the firm had a base and where it is hot, unlike Grenoble.
197	Text	The earliest survivor in the UK is a Q type, located at the Brook Pumping Station in Chatham. It stood in a children’s playground in Strood for many years.
200	Col 1, 2 nd para. Lines 14 -16	The appropriate legislation, not to be confused with registration requirements, during the 1920s is the Heavy Motor Car Order 1904 made under the Locomotives on the Highways Act 1896 and as amended by the Amendment Orders of 1905,1919,1920 and 1927. This required heavy motor cars (i.e. locomotives/tractors/lorries) not to exceed 8 mph if under 3tons UW, or 5 mph if over 3 tons; if fitted with ‘elastic tyres’ and under 6 Tons -12 mph - and 8 mph over 6 tons was permitted. Infringements were commonplace but to imply that undertype wagons could travel at 25mph and i/c engined trucks at 40 is most misleading. 20 mph for trucks (on pneumatics only) was permitted from 1932 and lasted until the mid-fifties.

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Page	Column/ position	Comment
200/201	Figs.221 & 222	It is unlikely that Fig.222 is lorry No.7917, more likely No.8149 or No.8410. It has many detail differences from Fig.221 which is a picture from <i>The Engineer</i> dated 5 th July 1912 reporting the Royal Show. Aveling & Porter exhibited a lorry at several other shows up to July 1914. The lorry in Fig. 222 is clearly an updated version – note also different registration numbers.
200	Col 2.Last line	Registration mark ‘147 KT’ is actually a General Trade Plate, hence the reversed number/letters and colour. Manufacturer’s service lorries normally worked on trade plates until mid-1960s.
200	Col 2.Last line	The registration mark carried by the lorry in Fig. 223 is clearly not 147 KT.
201	Fig.222 caption	‘Wetherel’s’ should read: ‘Wethered’s’ - as per signwriting on vehicle body.
202	Col 1	‘Final closure of the works in 1932’; but the relocation did not take place until December 1933. P142, Col 2, para 1 states that works finally closed July 1930. So when did the works close? The book ‘ <i>A Hundred Years of Road Rollers</i> (Pub Oakwood Press, 1965) suggests that stocks were built up prior to the relocation. See also Page 142, Col 2,1 st Para.
202	Col 1,1 st para	The lorry test undertaken by Garrett used two undertype steam wagon chassis. In the case of the four-wheeler, a two-cylinder McLaren-Benz diesel was used and in the six-wheeler, a four-cylinder McLaren-Benz was fitted. The Blackstone BHV6 engine was used in an all new forward control lorry, the GB6, a 6/7 tonner, works No. 35455. A second GB6 wagon, No. 35470, was fitted with a Meadows petrol engine and the third, No. 35471, was fitted with an Aveling & Porter engine. (see <i>Garrett Wagons Part 3</i> by R.A. Whitehead, published in 1996).
202	Fig.224 caption	Suggest better worded as ‘...at Warwick and later establishing a world record by ploughing non-stop for 997 hours’.
203	Col 2,3 rd para	‘Wingate’ should read:‘Winget’.
207	Col 1,4 th para	Should read: ‘British agricultural engineering industry’.
207	Col 1, 5 th para	Should read: ‘British agricultural engineering companies’.
208	Col 1,5 th para	It is incorrect to say of G.E.R. ‘although little appears to be known of his antecedents’. Road Locomotive Society Journal Vol. 60 No.4, Nov 2007 - pages 180-189 gives considerable detail of his background.

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Page	Column/ position	Comment
208	Col 1,5 th para	The following corrected detail is provided. During the period 1915-1919 Gwilym Rowland acted as Chief Cost Investigator for the Procurement Department of the War Office. His work in this period saved the Government and hence the taxpayer £25,000,000. One of the contracts that he worked on was for the supply of 16,000,000 dozen tins of rations and this is how he first came into contact with A.W. Maconochie. In January 1920 G.E.R. set himself up as an advisor on reducing liability to Excess Profits Duty using his wartime experience to good advantage. He circularised several hundred of the companies where he had done cost investigations and among these was Maconochie Bros. Ltd. to whom he wrote on 28 th January 1920. His fee for this work was 10% on any further savings of E.P.D. over and above the figures agreed with the Inland Revenue by their usual professional advisors. In the case of Maconochie Bros. Ltd he saved them circa £40,000 E.P.D.
208	Col 1,6 th para	Edward Barford joined A.G.E in 1923, not 1920 as stated. See ‘ <i>Reminiscences of a Lance-Corporal of Industry</i> ’ page 13.
208	Col 2,5 th para,3 rd line and Page 199 2 nd Col,3 rd para,3 rd line	Here the organisation is called Aveling & Porter and Barford & Perkins – on page 199 it is called Aveling and Barford & Perkins.
208	Col 2,4 th para,12 th line	In the last sentence, the relevant text should read: ‘Export Credits Guarantee Department (ECGD).
208	Col 1,6 th para	The correct title of the book is ‘ <i>Reminiscences of a Lance-Corporal of Industry</i> ’ not as printed. This is correct in the Bibliography. (See also Page 212 Notes 4 & 8).
208	Col 2,2 nd para	States that ‘It is interesting to note that no member of the Burrell family ever secured a place on the A.G.E. Board’. This is not correct. See letter head of A.G.E. on page 283 of M.R. Lane’s ‘ <i>The Story of St. Nicholas Works</i> ’. See also account of special committee of the A.G.E. Board attended by Lt.Col.Burrell (page183 of R.L.S. Journal, Nov. 2007).
208	Col 2,3 rd para,5 th line	EJB joined the AGE in 1923.not 1920.
208	Col 2,3 rd para	‘GEB’ should presumably read: ‘GER’ i.e. Rowlands.

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Page	Column/ position	Comment
210	Col 1,1 st para	After ‘31 st December 1931,’ the following should be inserted:-‘reporting on the chairman’s statement at the A.G.E. Ltd. A.G.M. where G.E.R...’ Also the word ‘claiming’ should read: ‘claimed’.
212	Col 1,1 st para	A-B Ltd was for a period owned by ‘Wordsworth Holdings’, not ‘Wandsworth Holdings’.
213	Bibliography. First book listed	The title of the Aveling-Barford book is ‘ <i>A Hundred Years of Road Rollers</i> ’.
213	Bibliography and relevant chapter Notes	Ronald Clark’s book title should read: ‘ <i>The Development of the English Traction Engine</i> ’.
213	Bibliography and relevant chapter Notes	Ronald Clark’s book title should read: ‘ <i>The Development of the English Steam Wagon</i> ’.
213	Bibliography and relevant chapter Notes	Publications: IMechE is ‘Institution of Mechanical Engineers’ not ‘Institute of.....’.
215	Abbreviations	LAO should be ‘Lincolnshire Archives’.
217	Appendix Index No. 12	This is the specification for later slide valve rollers dating from 1929/30 – it is not for piston valve rollers.
218	Appendix 1 Patent No.3830/68	Given the subject, this should perhaps read ‘The handing of ploughing engines’ i.e. not handling; also plural of ‘engines’.
218	Patent No.1646/70, 2 nd line	‘value’ should read: ‘valve’.
218	Patent No.509/71	It is not known that the word ‘conical’ featured in Aveling’s nomenclature although ‘tapered’ and/or ‘bevelled’ did.
221	4 th para ,4 th line	If Aveling’s did not use the word ‘waggon’ in their literature – and this would have been reflected in the title of Chapter 15 – then this word should be ‘wagon’.

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Page	Column/ position	Comment
221	Last line	Would read better if reworded ‘...slide-valve rollers were re-introduced...’
222	No. 498	Page 223 shows it to have gone to Canada, not Europe – see No. 864.
222/223	Table titles	‘Bath No.’ should read: ‘Batho No.’ (twice).
223	No.799	The Elan Valley Project did not start until the late 1890s. Therefore this reference should be deleted as it gives the wrong impression. The machine was supplied for use on Birmingham’s roads.
223	No.845	The local authority did not exist with this title in 1872. Should read: Borough of Huddersfield.
224 & 225	Appendix 5	No.437 became <i>Steam Sapper No.1</i> although not shown as such in Appendix 5. It should be noted that Brompton (Barracks) is the Royal Engineers’ base at Chatham. Note ‘*’ items are unclear/misleading. According to the footnote ‘Dimensions vary according to customers requirements’ but these are items for individual engines identified on the Royalty Book sheets as either being fitted or not. For example compensating gear, governor, winding drum, crane gear and brakes would be recorded if fitted. The entries in Appendix 5 should be either ‘Fitted’, ‘Not fitted’ or ‘Not available’ if there is no Royalty Book record. After hornplates were introduced all machines incorporated this design.
225	Appendix 5	No.3220 is not listed. This 6NHP road locomotive, convertible to road roller, carried the name <i>Steam Sapper No. 3</i> as on an 1895 photograph.
226	Appendix 6	What period of engine do these relate to? Likely to be after 1890, based on boiler pressure given. The 6NHP traction engine cylinder stroke was 12” and not 10” by that date.
232	Appendix 12	These dimensions are for the 1929/30 single cylinder SV series, not the piston valve road rollers as per heading. There are types missing in this Appendix such as AB,AD,AF and AH, all of which are actually in the original table from which this data was taken.
232	Appendix 12	AV Medium column includes Ft/Ins characters against the weight.
236	Appendix 16	IHP/BHP columns for both FGR and FGP includes Ft/Ins characters – and perhaps therefore are some other dimensions.

Corrigendum of Key Issues relating to the book, ‘*The Story of the Invicta Works, A History of Aveling & Porter, Rochester*’

Page	Column/ position	Comment
238	Gen Index	There two entries beginning with A and E in the category of M. The entry ‘Association Owners Agri. Loco’ should read: ‘National Association of Owners of Agricultural Locomotive Steam Engines’. The entry: ‘Engine Users Association’ should read: ‘National Traction Engine Users & Owners Association’.
Inside cover	rear The Author	The correct name of the organisation - of which the author was Chairman - was the National Traction Engine Club.