

A comparison of the 1885 and 1897 locomotive diagrams for the W and S-class engines, in their original and rebuilt

forms, shows the following dimensions and weights, etc.

	W-class Original	W-class Rebuilt	S-class Original	S-class Rebuilt (a)	Notes
Cylinders (2 outside)	16" x 24"	16" x 24"	15" x 24"	16" x 24"	(a)
Wheel dia. bogie	2'2"	2'2"	2'2"	—	
" " driving	4'3"	4'3"	4'0"	—	
" " tender	3'0"	3'0"	3'0"	—	
Wheelbase bogie	5'8"	5'8"	5'8"	—	
" coupled	12'0"	12'0"	11'0½"	—	
" tender	10'10"	10'10"	10'10"	—	
" total E & T	40'3¼"	40'3¼"	38'10-5/8"	—	
Length over buffers	48'11½"	48'11½"	47'6-5/8"	—	
Height above rails	13'2"	11'4½"	13'0"	11'4½"	(a)
Boiler centreline height	6'0"	6'0"	5'9"	5'9"	(a)
Heating surface: tubes	920 s'	938 s'	836.4 s'	938 s'	(a)
firebox	82 s'	80 s'	70.17 s'	80 s'	(a)
total	1002 s'	1018 s'	906.57 s'	1018 s'	(a)
Grate area	15.1 s'	15.9 s'	13.27 s'	15.9 s'	(a)
Boiler working pressure	125 p.s.i.	140 p.s.i.	130 p.s.i.	140 p.s.i.	(a)
	or	130 p.s.i.			
Starting tractive effort	11700 lb.	13490 lb.	10400 lb.	14336 lb.	(a)
at 80% M.E.P.	or	12047 lb.			
Tender capacity: water	1895 gals,	2100 gals,	1895 gals,	—	(c)
coal	60 cwt	60 cwt	60 cwt	—	
Weights, roadworthy	tons cwt	tons cwt	tons cwt	tons cwt	
bogie	10 17	11 8	9 19	10 4	(a) (b)
adhesive	25 3	25 18	23 3¾	23 10¾	(a) (b)
total engine	36 0	37 6	33 2¾	33 14¾	(a) (b)
tender	22 1½	24 12	22 1½	22 1½	(b)
total E & T	58 1½	61 18	55 4¼	55 16¼	(a) (b)
Maximum axle loading	8 17	9 11	8 2	8 19	(a) (b)
Number in class	12	12	10	1	(a)

- Notes: (a) Refers to No. 197 only on reclassification as W in 1908  
 (b) Variations in individual axle weights apparent at different stages of rebuilding and replacement of boilers, etc.  
 (c) Increased tender tank capacity applied to some individual engines.

### THE ROCKHAMPTON CITY TRAMWAYS

(Bulletin Nos 440, 442 & 443 — June, August & September, 1974)

Mr. J. W. Knowles writes —

A number of corrections and additions can be made to this series of articles, as follow:

Page 122: There is some doubt about the precise layout at the depot, but it seems fairly certain there were five roads in the shed (f p. 126 also).

Page 124: It was incorrect to say that one of the cars was delivered as a chassis only. A contemporary newspaper reported that "the ballast car has the chassis and motor of a tram car, and can be converted if desired. At present it has two hoppers, each for 2½ tons of stone." As V. Purrey supplied "bascule wagons" complete with hoppers (see below), it was probably delivered in this form from France.

Pages 133 and 185: Although tram No. 15 was renumbered 9 in 1933, trailer 9 was not renumbered, and carried the number 9 until the closure (as can be seen in the bottom photograph on p. 210). There were thus two vehicles numbered 9 between 1933 and 1939.

Pages 134 and 183: The last service on 24th June, 1939,

was operated by tram No. 5, not No. 6 as stated. It would seem from photographs that vehicles 3, 7, 13 and 14 did not operate after 18th May, 1939, or even earlier.

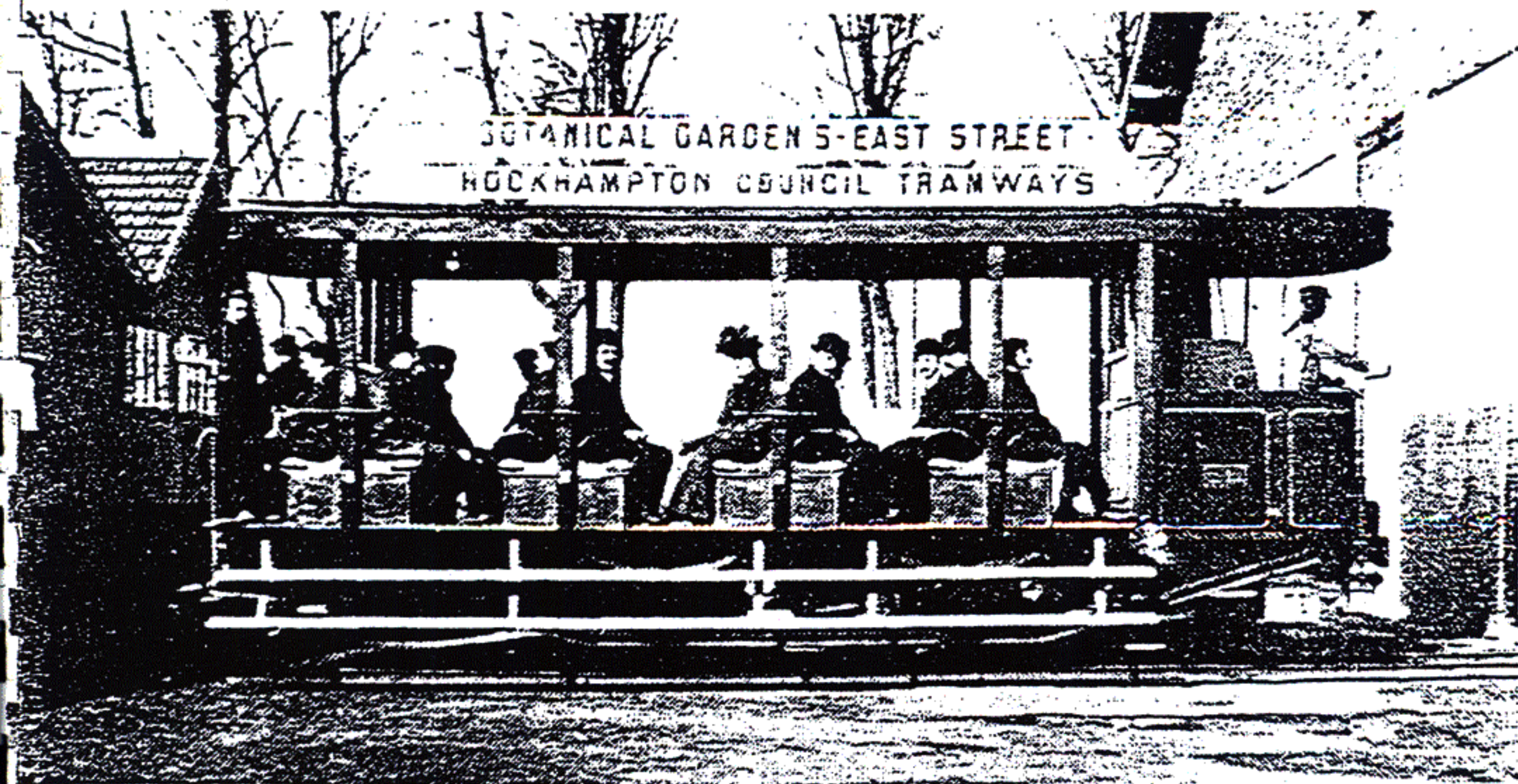
Page 138: The photograph shows buses inside the shed. After the closure, all tramway rolling stock was placed on outside tracks.

Page 139: By about 1929, two transverse arches had been fitted under the roofs of Nos. 1 and 5, and one on No. 7. By then, No. 7 had reflected light advertisements on the sides of the roofs.

Page 141: The half-wall on the off-side of No. 4 was of matchboard, not corrugated sheet.

Pages 141 and 185: No. 7 was apparently the first toastrack car with a half-wall on the off-side, being so fitted by 1929.

Page 182: By the closure, the V on the fronts and the inverted V on the rears of the cars indicated their direction. It was apparently the practice from about 1934 to use these markings to indicate the route, a V for Gardens — Wandal.



*One of the 1909 Rockhampton cars outside the works of V. Purrey, Bordeaux, France, where it was built, judging by the trees during the northern winter of 1908-9.*

*(Photo: Dr. J. Brenot Collection)*

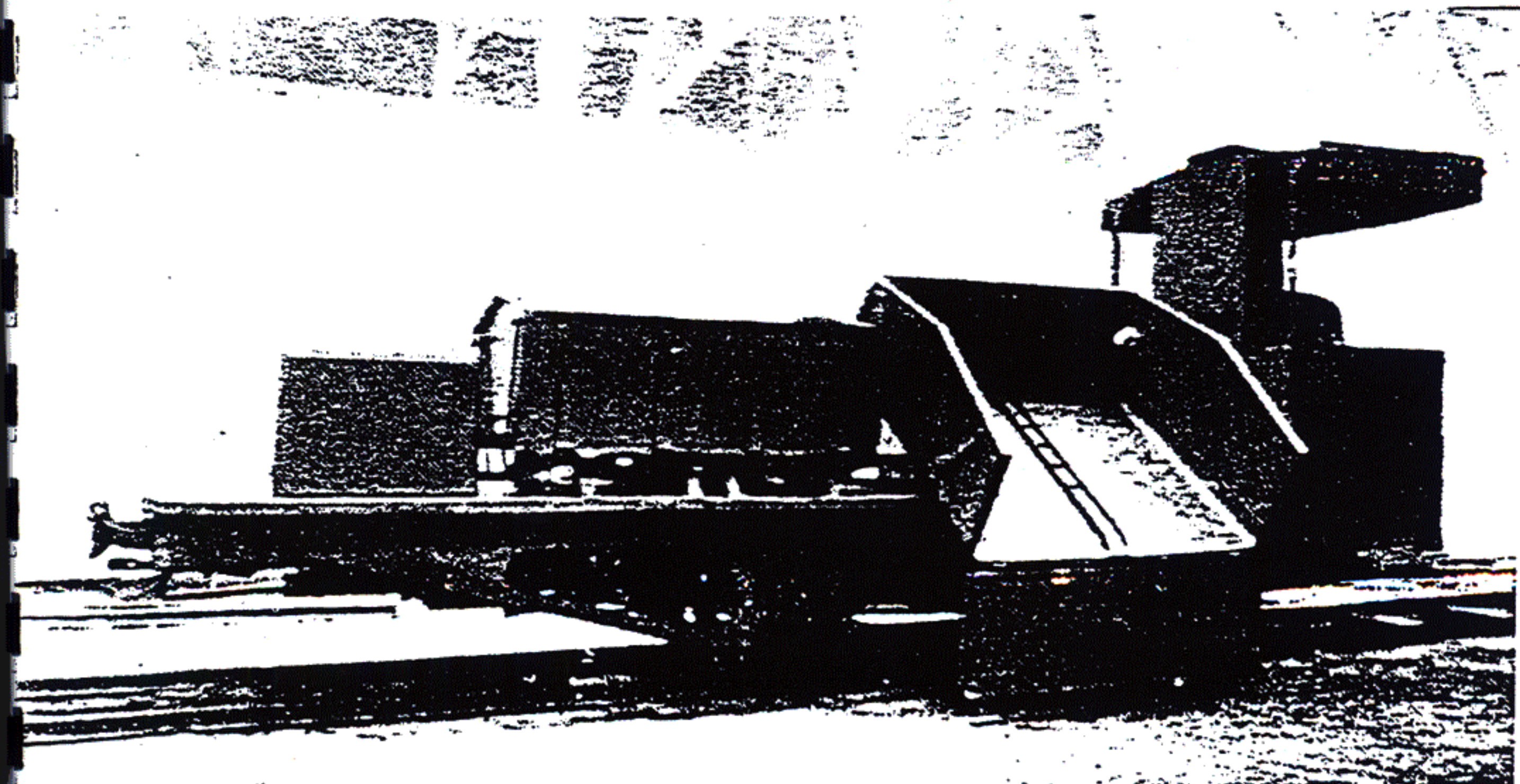
and an inverted V for Dawson Road — Canning Street. In this case, the same marking was shown on both ends of the car.

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Page 189: The number of outbound cars on the Gardens line on Mondays to Fridays should have read 29. The photograph of No. 7 is now known to have been taken in February or March, 1934. It then carried no V markings, indicating the date after which such markings commenced (see above).

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*A Purrey 'bascule wagon' with side tipping hoppers, probably the type delivered to the Rockhampton tramways for construction, and later converted to a passenger car.*

*(Photo: Dr. J. Brenot Collection)*

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Page 211: The twelve tickets sold together at a discount were referred to as "tablets", not "tables".

Page 211: Another form of nomenclature was that shown on the tickets, which were headed "City of Rockhampton, Municipal Tramways".

General: By courtesy of Dr. J. Brenot of Bordeaux, France, a photograph is available of one of the first four Rockhampton trams at the works of V. Purrey of Bordeaux, complete with roof-side destination boards. The car is resting on temporary rail laid to a gauge of 3'6", most of the output of the works being to standard or metre gauges.

There is a door in the side half-wall of the driving compartment. The nearest car visible in the photograph on p. 121 has a door in this position, but by the 1920's, none of the cars had a door in this position. Such doors on the off, or right hand, side would have posed problems if opened on double track with left hand running. (The car design with coke hopper on the left and driver's door on the right is more suited to right hand running, as on French tramways.) Probably only Nos. 1 to 4 had this door, as grab rails fitted near the exit on the other cars would have prevented the action of a hinged door.

A builder's plate is carried on the cabin door in the works photograph. Builder's numbers were given to Purrey vehicles, but those of the Rockhampton cars (Council and Queensland Railways) are not known.

Another photograph in Dr. Brenot's collection shows a Purrey frame fitted as a "bascule wagon", with two side-tipping hoppers, and a water tank on the rear. This is presumably the form of the Rockhampton ballast motor. Mr. Ken McCarthy speculates that this photograph may identify the ballast car as No. 4 (see p. 185). Cars 1 to 3 and 5 to 8 had thin-tyred, thin-spoked wheels on the rear axle, thought to be intended, along with spring setting, to lower the rear of the car, and balance the weight of the boiler on the front (see the photograph of No. 1 on p. 189). Car No. 4, at least from about 1928 until the closure, had thick-spoked wheels on the rear axle, different from those on any other car.

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The photograph of the bascule wagon shows it to have had thick-tyred wheels on the rear axle, similar to those on the front axles of Nos. 1 to 3 and 5 to 8. Balance was presumably a smaller problem with the hoppers centrally placed and the water tank to balance the boiler when the hoppers were empty. Mr. McCarthy thinks that when the ballast car was converted to a passenger car, with water tanks under the seats, a balancing problem would have arisen, and smaller wheels were presumably obtained locally for the rear axle, of a type different from those fitted to the rear axles of the other cars when built. As the Rockhampton cars were overhauled one by one (there were no "production line" overhauls with only nine cars), it is possible that this axle with the odd wheels remained on No. 4 from when fitted with a passenger body (if it was the ballast motor) until the closure.

The Purrey system was applied to a wide variety of vehicles -- tram motors, railcars, shunting tractors, buses and lorries. It is thought from the sparse records that some Purrey steam lorries were supplied to an unknown buyer for coal haulage in Tasmania.

After financial problems about 1914, the Purrey works were operated by a M. Exschaw, and the cars were labelled "Ets. Exschaw, systeme V. Purrey". The imported equipment for Council car No. 9 of 1922 and the two Queensland Railways cars of 1924 were therefore supplied by the Etablissements Exschaw, to Purrey designs.

The Purreys in Rockhampton carried the highest boiler pressure ever used on rails in Queensland, 240 p.s.i. (17 kgs per square centimetre). They were also the first (1909) to employ superheated steam on rails in Queensland, the first locomotive to have such facility (C18 No. 692) having it fitted in 1916. Apart from the Mallet on the 2' gauge Port Douglas Tramway, five of the Purrey cars at Rockhampton (3 Council, 2 Q.R.) were the only examples of steam power on railways in Queensland to employ compounding.

I wish to tender my thanks to Dr. J. Brenot and Mr. K. McCarthy for comments and information which have made possible many of the above additions.