

File No. 38/31

April 14th 1931.

W. G. T. Goodman Esq.,  
Chief Engineer & General Manager,  
Municipal Tramways Trust,  
Box 413-C - G.P.O.,  
ADELAIDE. S.A.

Dear Mr. Goodman,

SCRUBBER CAR.

A few weeks back I mentioned to you that we are designing a new scrubber car and it was suggested that you intend putting any of these on your roads it might be to our mutual advantage to have them made at Preston Workshops when the Melbourne vehicles are being made. In any case I promised to forward to you drawings showing the arrangement proposed. Consequently I am sending you under separate cover blue print No. R-3028, 3035, showing the arrangement and detail of the carbundum block holder. This is an improvement on the existing design, the front being more resistant and the wheel base extended. The new holders are designed to clamp the blocks more closely and to allow of easier adjustment to facilitate cleaning.

I also forward Print R-2471 and R-2353 showing the existing scrubber cars. You will note that Dwg. No. R-3028, 3035 have not yet been finally examined and approved.

Yours faithfully,

*J. P. Stuckland*

CHW/MIC  
SEP. COV. Dwgs.

THE N.E. 383/1

June 1st 31.

W. G. T. Goodman Esq.,  
Chief Engineer & General Manager,  
Municipal Tramways Trust,  
Box 413-C - G.P.O.,  
ADELAIDE. S.A.

Dear Mr. Goodman,

In reply to your letter of the 19th ult. with regard to scrubber cars, I have to advise that we have found it necessary to use 2 - 55 H.P. motors on both our scrubber cars, the motors selected being G.E.241 type. The first scrubber car was originally fitted with W.H.205 motors of 33 H.P., which were replaced with German motors (type U.140) of 44 H.P., but these proved to be too small for the work. The second scrubber car was originally fitted with G.E.202 motors of 50 H.P. We now find 55 H.P. motors to be necessary with a contactor setting of 300 amps.

With reference to the remarks of your Permanent Way and Rolling Stock Superintendents, I have to advise you that a reciprocating grinder would be considered too slow for our work and would be used more for the work now done here by the rotary rail grinding machines.

We use "Wabco" buckets in all of our air cylinders and

and are not troubled with air leakage.

The new block holder has been designed to swing outwards to allow ready access to the grinding face, as this becomes burnished and has to be attended to on the road. The lugs referred to on our drawings are for tie bars to give greater rigidity to the grinding blocks, if required.

With regard to the Ferodo packing around the carborundum blocks, at present we use mill board with satisfactory results, but it is thought Ferodo may be better.

The two scrubber cars we now have in service are on standard Brill 21E trucks. I am now considering fitting up another of our single truck cars, on Brill 21E trucks, as a scrubber car, rather than go to the expense of the new design.

Yours faithfully,

*T. P. Stockland*

CHIEF ENGINEER.

AS  
HS/HR *[Signature]*

E O'Meara

For you to read.  
Mr. Wickham would  
like to take it to  
Preston when he leaves  
tonight.

Boyle  
21/5/37

Mr Wickham

motors on Car nos are  
apparently too light. Those on  
96 have given very little  
trouble. We will shortly be

asking for another straight-  
cill car to be fitted with  
blocks and air to replace  
nos. as no 96 has done such  
good work this appears to  
be the best course at present  
instead of spending £2000  
on a completely new design.

Boyle  
21/5/37

14040

Chief Engineer & General Managers Office

MARKS

Adelaide. 19th May, 1931.

38653

Dear Mr. Strickland,

SCRUBBER CAR

With reference to your letter of the 14th ultimo regarding the above, please accept my thanks for forwarding drawings, which are being examined. I attach hereto copy of report from my Permanent Way Superintendent and Rolling Stock Superintendent.

I should be glad to hear from you your opinion as regards the size of the motors required. As you are aware our single truck cars are 9 feet wheel base.

Yours sincerely,

*W. P. Strickland*

T.P.Strickland, Esq.,  
Chief Engineer,  
Melb. & Metro. Tramways Board,  
673 Bourke Street,  
MELBOURNE.  
VICTORIA.

Encl. 2.

RECEIVED  
21 MAY 1931

W

*on 21/5/31*

COPY

6th May 1931

To:- The Chief Engineer &  
General Manager,

SCRUBBER CAR

In connection with the attached letter from the Melbourne & Metropolitan Tramways Board and the drawings enumerated therein, these have been looked over and the scheme gone into.

A trial has been made with our existing scrubber blocks as fixed to the water sprinkler, and it would appear that these do grind out the ~~flats~~, but this method has several serious disabilities.

One is, it is extremely slow owing to the starting and stopping, and obviously it is a considerable user of power due to the many starts.

If a considerable length of track is treated, those portions that do not require dressing receive the same attention as the bad spots, consequently the wastage of the rail is considerable.

It would appear that the sprinkler as fitted is a four-motor equipped machine carrying its own water supply, and is probably more suitable for this work than an old tramcar.

Our single truck tramcars are only equipped with two 34 h.p. motors and the Rolling Stock Superintendent doubts if these motors would stand up to the work required, unless considerable lengths of track are treated at once.

The Permanent Way Superintendent reports having gone into the question of a reciprocating grinder fitted to a car, similar to one described in the Electric Railway Journal of April 1928, and from replies received from a user of this equipment the results appear satisfactory both from a workman's point of view and also financially.

It is suggested that the idea of a reciprocating grinder fitted to a tramcar might be further developed in our Drawing Office, as we are satisfied that this would give better results in our service than the one proposed for use in Melbourne.

Concerning the design of drawings submitted, these have been scrutinized, and one or two suggestions might be put forward -

It is noted that the method of lifting the scrubber is by the use of the ordinary air cylinder and consequently the pressure applied to the cylinder would set the pressure on the blocks. In the ordinary air cylinder considerable leakages occur and we think close attention would be necessary to the cylinder leathers if an even pressure is to be maintained.

It would also appear that the air valve would give equal pressure on the blocks on both rails, although the amount of corrugation to be removed from each rail might be unequal.

It is presumed that the elaborate arrangements for swinging the scrubber gear clear is to enable the abrasive blocks to be adjusted or removed, but it would seem more simple if the scrubber gear was set in a fixed position on the truck frame and the outside clamps made quite removable. These would probably require the inside body section to be of sufficient strength to take the thrust of the gear when in use.

With the apparatus shown on Drawing R.3035 I presume it is necessary to have new truck side frames on the car to be used in Melbourne. It would certainly require new side frames for any of our trucks. It is specially interesting to know on what type truck Melbourne proposes to use this apparatus.

Another point which might be mentioned is the presence of the Feroda lining inserted in the block chamber. It is suggested that when the apparatus is set up with full length blocks the lining would tend to squeeze into the channels on the sides, and it would be difficult to remove the lining when lowering the blocks

6/5/31

To:- C.E. & G.M.

page 2

as it is presumed that this operation would be done on the track by lifting the two end clamps and if necessary slackening the side checks.

It is noted that lugs are provided on the inside of the scrubber gear presumably for cross connecting under the car body. It is very difficult to trace the existence of such connections on Drawing R.3028. It is, of course, possible that these lugs are provided in the original drawing to be used if required.

It would be of further interest if we knew the make of truck and the sizes of the motors it is proposed to use on the Melbourne machine.

Wm. DAVIES.

.....  
Permanent Way Supt.

C.F.HURSTHOUSE.

.....  
Rolling Stock & Actg.  
Station Supt.

Attd. Letter 122367  
FM.

To accompany letter dated 19/5/31 addressed to -  
T.P.Strickland, Esq., Chief Engr., Melbourne & Metro.  
Tranways Board, Melbourne.





~~13984~~

138481

Chief Engineer & General Managers Office.

Adelaide.

22nd April, 1931

Dear Mr. Strickland,

I am in receipt of your letter E38/3/4 of the 14th inst. together with prints of both the proposed Scrubber Car and the equipment on your present Scrubber Car, for which I thank you. These prints are at present being scrutinised, and any suggestions that we can make will be forwarded later.

Yours faithfully,

*[Handwritten signature]*

RECEIVED  
23 APR 1931

T.P. Strickland Esq.  
Chief Engineer,  
Melb. & Metro; Tramways Board  
G.P.O. Box 4528  
MELBOURNE (Vic)

*See 1056 23/4/31*  
for P.W. SUPT.

*C.W.*  
*See [unclear]*