# MELBOURNE AND METROPOLITAN TRAMWAYS BOARD

# ENGINEERING DEPARTMENT

# WORKSHOPS AND RUNNINGSHEDS BRANCH

### RUNNINGSHEDS PITMEN

# DUTIES:

Pitmen are required to adjust brakes, replacing brake shoes when necessary; maintain brake rigging, which includes replacement of components such as brake pull rods, levers, radius bars, brackets and assemblies when necessary; adjust thrust collars; replace, when necessary, semi-elliptic spring and axle box assemblies bolster springs, swing links and hand brake cables, side rubbing plates, etc. They clean and oil rigging and inspect for loose bolts throughout the trucks and brake rigging, and generally inspect for defects such as cracks in brake levers and wheels. They assist tradesmen with the maintenance of air brake cylinders, and under the direction of a Foreman or Leading Hand, replace motor suspension bearings and lift tram bodies with jacks to re-grease bolster centres, when required.

The majority of Pitmen have been trained as Oilers and Wheelgrinders and relieve on this work as required. (Oilers are trained Pitmen who are responsible for oiling and repacking, at scheduled times, all bearings, including axle box bearings, as well as oiling compressors). They are required to drive trams in Depots.

Minor duties include reversing poles, lowering the weather-blinds of trams berthed outside sheds, and at some Depots, drying sand and sanding trams. The more experienced Pitmen form part of the crew of the Emergency Vehicle and do any emergency work as required.

#### TRAFFIC:

A main requirement for a Pitman is reliability, both in attendance and performance of work. Most work is supervised by Foremen or Leading Hands, but on afternoon shift only one Leading Hand is available to "spot-check" brake adjustment at all Depots.

On entering the service a man is normally employed first as a Car Cleaner, then trained as a Pitman if a vacancy arises. This gives opportunity to assess a man's capabilities. However, when there are vacancies for Pitmen and no suitable Cleaners are available (or willing to do pit work, which is fairly dirty work) new entrants to the service who are familiar with the use of tools, or who have held appropriate jobs, are sometimes traimed immediately for pit work. Trainees receive Pitmen's rates during training.

Two weeks basic training in pitwork is given, under the supervision of a Foreman and Leading Hand, before the trainee is tested by an Inspecting Foreman. Trainees who show promise but do not make the desired progress, may be given further training before they are re-examined. A Pitman who has satisfactorily absorbed this initial training then continues to learn his work under the supervision of Depot Foremen and Leading Hands. Although there are two main truck types, there are several other truck types still in service and some time is required for Pitmen to become familiar with them all, and the full range of work necessary.

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The initial training period follows this procedure:-

# FIRST WEEK:

# First Day:

After a short lecture by the Foreman on safeworking as a Pitman, and the necessity for safe and reliable brake operation, the Trainee starts work with an experienced Pitman who explains the names and functions of the various parts and shows the Trainee how to clean the rigging, open turnbuckles, clean and oil threads, check turnbuckle threads for slackness and how to swing the rigging to and fro to check that it is free and not binding anywhere. The Trainee is shown how to replace worn shoes and adjust the brakes, how to replace worn suspension bearings, broken splash boards, and broken side bearers, how to check motor "slog" (side movement) and how to adjust the thrust collars if necessary, how to check slack hand brake cables, and adjust them, and replace worn or broken handbrake cables and how and where to check for loose and missing bolts and nuts.

#### Second Day:

Trainee cleans down and oils rigging, removes and replaced thrust collars, removes and replaces brake assemblies, removes and replaces brake pull-off springs.

## Third Day:

As for second day, plus 20 minutes instruction on tram driving.

#### Fourth Day:

Trainee cleans and oils rigging and adjusts brakes, replaces a splash board, replaces a semi-elliptic spring, replaces a radius bar support bracket, replaces equaliser springs and has a further 20 minutes driving instruction.

### Fifth Day:

As for second day, plus 20 minutes instruction in driving.

#### SECOND WEEK.

#### First Day:

Trainee cleans and oils rigging, adjusts brakes for approximately two hours with a "broken shift" pitman, adjusts handbrake cables, revises names of parts and their functions and has further driving instruction.

# Second Day:

As for previous day, including reversing poles (this is a simple job, but if done incorrectly from the side of a pit, can result in accident or injury).

#### Third Day:

Works with a "day-in" Pitman, doing, under his supervision, all work required on one end of each tram worked on. Work checked by Leading Hand or Foreman. Further driving instruction.

# Fourth Day:

Trainee services one tram on his own, with tool kit supplied by Foreman. Work checked by Foreman. Revises part names and repeats selected jobs. Further driving instruction.

# Fifth Day:

Foreman or Leading Hand selects one tram which is given a complete "day-in" service by Trainee. Work examined by Inspecting Foreman, who also examines Trainee on his ability to name parts and explain their function and to perform any selected tasks in which the Trainee has already been instructed. Inspecting Foreman also checks Trainee's understanding and observance of safety precautions and tests the Trainee's tram driving. If the Trainee passes satisfactorily he is then generally trained for oiling and wheel grinding.

### GENERAL COMMENTS.

Quite a few Trainees discontinue training at their own request, having decided that they do not like pitwork. Foremen discontinue the training of others, if they consider that Trainees have insufficient aptitude for the work. They do, however, persevere with a man who is a little slow to learn, if they consider that he is trying, and will have a good chance of success. In this case the Inspecting Foreman will defer his tests for a few days. A few men, (of the order of three or four per year), continue training for the full time and then fail the Inspecting Foreman's test.

Not all Pitmen who receive this initial training remain as Pitmen. Some resign and some revert to Cleaners at their own request.