

VALUATION OF CABLE CARS.MEMORANDUM NO. 3.

7th October 1916.

Apart from the revenue, dividend or going concern aspects which have no bearing in this case of car valuation, there are in general six factors associated with value, which, for convenience might be distinguished as follows:-

1. Cost to build.
2. Accrued Repairs.
3. Operating efficiency, that is ability to render the service required of it.
4. Annual cost of maintaining the operating efficiency.
5. Remaining useful life as affected by depreciation, both physical and functional.
6. Scrap Value.

Before considering the nature of these factors, operating efficiency should be distinguished from useful or remaining life of the car. Operating efficiency may closely approach to the 100% standard whilst the remaining life is a small part of the whole. As an example, a worn rail way, and often does give full service efficiency whilst its useful life may be but a fraction of a new one. So too, a grindstone with half its useful life gone may render efficient service to the end. There is little difference between a new car and a well maintained old car of the same design from an operating efficiency standpoint, i. e. ability to render service, but there may be a wide difference in the cost of maintaining such operating efficiency apart from the remaining useful life of either.

Assuming the cost of a new car to be established and the operating efficiency accepted, then the value of a secondhand car at any time would be governed by:-

1. Accrued repairs.
2. Annual maintenance charges.
3. Remaining useful life.
4. Scrap Value.

The accrued repairs are properly ascertained by inspection. Each car should be examined and a complete schedule of repairs and cost of same prepared and such would thus be a deduction from the cost now before the other elements of value are applied. If the actual cost of maintaining either a new or old car was the same, then it would be immaterial to the Board what this head whether the cars were in the one class or the other. Assuming however, that older cars do require greater repairs (an assumption supported by the records in this case) then such increased annual charges should not be disregarded in fixing value. No Buyer could, for example afford to pay, nor could a seller expect to get as much for one machine that served the same purpose as another of like kind costing less to operate. An approximate value of the difference in maintenance of new and old cars may be obtained from the records.

The most difficult item to assess is that covering depreciation. For convenience it may be regarded as divisible into two parts. - physical and functional. The one covers wear and tear and the ravages of time, whilst inadequacy, antiquation or obsolescence are involved in the other. There is no accepted standard of allowance to cover either. One is largely guided by experience, fixing an average and adjusting from time to time as may be needed to maintain the investment. Functional depreciation is less tangible than physical depreciation. When the art is changing rapidly it is high. Generally when the industry is well settled, it is low. Everyone agrees however, that it is prudent to provide for the contingency. Failure to do so has prejudiced many supply and tramway undertakings. However, the depreciation of ~~the~~ allowed by the Secretary is if anything on the low side but it gives the benefit of any uncertainty there may be to the Company. In this case the question of obsolescence is clearer than usual. The cable system of street traction has given way to electric operation and in the suburbs of Melbourne extensions are rapidly being made on these lines. Parliament is shortly to deal with the metropolitan tramways and the day is fast approaching

when in the interests of the travelling public the whole of the system will be unified. The estimated period of ten years appears to be fair, provided the war is not unduly prolonged. That the cable cars must eventually be scrapped all may agree, but when this will be is of course a point for dispute. The Board must however, be encouraged in its views by several factors.

(c) Cable lines are not being constructed for street tramway purposes.

(b) When the Metropolitan Tramways are brought under the control of one authority there will be need for electrification to unify the service.

(a) The Traffic Commissioner's report which was the result of exhaustive enquiries recommends the need of the electrification for tramways and recommends it.

(d) Public opinion cannot be disregarded.

A sale on the open market if such were possible would cannot purchasers to take these factors into account and the price that could be paid would be influenced accordingly. There being no market should not oblige the Board to ignore them.

Board value should be assessed on the break up worth of the component parts of the car unless there is some market for their use not at present in sight. The amount as fixed by the Secretary would appear to be fairly accurate. Having once settled these points, the methods of using them for the purpose of ascertaining the value of the cars to the Board are numerous but for the Board's purpose these might eventually be reduced so:-

1. Rental-Obsolescence basis.
2. Present physical value basis.
3. Operating efficiency basis.

GENERAL-OBSCURE BASIS.-

This method of valuation is approximately that used by the Secretary. It presumes obsolescence in ten years, a fact to be fixed either by the Board, its successor or any

Important.
W.R.

Secretary's
No. 1 amended
Scheme dated
13/9/16.

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company or person that might have obtained the franchise rights. There is much support for this contention and it leads to a fair and equitable transfer of the property.

A strong effort should be made to obtain a recognition of it. If this principle is applied the value should be *of the annual interest charges plus the present worth* ascertained by taking the present worth of scrap value and after ascertaining the increased operating charges of the older cars, deduct capitalisation of such excess expenses from the value ascertained in the manner referred to.

Further
investigation
is in pro-
gress.

W.S.

A further investigation of the cost of repairs to cars as per E. T. O. Exhibit should be made to ascertain if possible the exact rate of increase of expenses with age.

PRESENT PHYSICAL VALUE BASIS.-

On this basis accrued repairs would be the first deduction after which the depreciated value ascertained approximately by inspection. One would also need to provide for increased maintenance charges of the older cars, fixing the amount on the price one would afford to pay to enjoy the advantages of the lower operating costs of newer rolling stock. A rough test of physical value of any property of this kind, the items of which are of all ages and are numerous enough to support the law of averages is 50% of the cost to reproduce new.

OPERATING EFFICIENCY BASIS.-

This is apparently the E. T. & O. Company's basis of valuation. After allowing for accrued repairs it maintains that the cars are in first class operating efficiency, that is, their ability to render service approximate to the 100% standard and no matter whether cars are old or new, all being of equal value from an operating efficiency standpoint, they should be paid for, after the above allowance on the cost to reproduce new basis, that is one price whether old or new. This method fails to distinguish between operating

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efficiency and remaining useful life as well as the greater repairs of the older cars and leaves out of consideration the degree of obsolescence of the plant. As before stated, the operating efficiency may be high and the useful life low.