

with their imported cars. It is a matter for the people in the area concerned.

Wirksworth DE4 4EF M. W. BURNBY

(While it is true that the nationalisation of electricity supply must have contributed to the demise of municipal trams, the earlier success of joint municipal electricity and tramway undertakings often involved considerable cross-subsidy within the department, something which is stridently opposed today by a political philosophy which I suspect Mr Burnby supports. One must also not forget the run-down state of the electricity industry when it was nationalised, and the lack of adequate generating capacity led almost inevitably to maximum-demand tariffs which crippled electric public transport. — *Editor*)

Tramcar weight

Sir,

The table of comparative weights of LRVs which was included in the letter about GLT in the April issue showed clearly how much heavier are the Manchester cars compared with those for other cities. Does this have something to do with British legislation? If so, is it justified, perhaps on safety grounds? Is this one of the factors that holds back light rail development in Britain compared with other countries?

London N10 2AD

CHRIS BARKER

Hindsight

Sir,

Peter B. Mason's letter in your April issue seems to rely somewhat on the benefit of hindsight. It is easy now to criticise the stance of the then LRTL in pre-war days, but it must be borne in mind that it was a pioneer transport pressure group and was up against a monolithic adversary. It is interesting that the same Mr Mason who dissociates himself from amateur societies is happy to use the LRTA journal to express his views. One thing is reassuring however: he admits to visiting Carlton Colville. As one closely involved in the East Anglia Transport Museum, it is gratifying to know that the museum has provided Mr Mason with an opportunity to compare a London tram ride with a London trolleybus ride. It is certain that this facility would not have been available to him without much hard and sustained effort of dedicated transport amateurs with a very wide range of views on transport.

The achievements of amateur societies in the UK has been impressive considering the lack of official support which is commonplace here. Strangely, it all seems to have happened without the active support of Mr Mason.

Chingford E4 6SP ROY MAKEWELL

Sir,

Mr P. Mason of Brighouse sounds very like the kind of person he tries to avoid by not joining any transport society. Which is maybe just as well for all of us.

Taunton TA2 7TA ARTHUR J. BROWN

TSOL and standard gauge

Sir,

I refer to your letter from Pierre Hofmann in your April issue about "The TSOL and Flon".

Why build a tramway in standard gauge? "Eisenbahn-Amateur" 1/92 has an answer. The TSOL line could be extended over the SBB line via Renens by using two-system trams of the Karlsruhe type. These vehicles are built for both railway 15 kV ac and for tramway voltage dc so that they can run on Karlsruhe tram rails in the city centre and on DB rails in the surroundings. The TSOL has the intention to test such a vehicle for through-running on the Renens — Morges and Renens — Cossonay SBB lines.

CH-6045 Meggen

W. TRÜB

(We are delighted to learn that a Karlsruhe-type car will be tested on these lines, but we do question whether the TSOL was aware of the

Karlsruhe project at the time it decided on standard gauge. — *Editor*)

Sir,

The car numbering in the SBB series is from 200.201 to 200.212. I believe this is directly related to future maintenance of the cars, heavy overhauls being very likely to be carried out at the SBB works at Yverdon, and wheel-profiling more regularly at the nearby depot in Lausanne, to which many other items of "private" railway rolling stock also come. I can also confirm that test runs were carried out on the Orbe Chavornay line, the photograph on page 38 surely being taken there.

I like the placing of Overseas News Highlights in the new Masthead, but is the "Overseas" part really needed?

Milton Keynes MK15 0BB ROGER N. H. JONES

(To answer the last point, it has already become "World", preparatory to being dropped altogether. — *Editor*)

Busway costs

Sir,

At a recent London conference on guided buses, it was claimed† that the proposed busway in Leeds could be built for £8M, or between 10% and 30% of the cost of a light rail line. This £8M seems to be on the low side, as does Go-Ahead-Northern's claim that the sections of guided busway required to give a dedicated route from Newcastle to Sunderland could be built for only £5M, including a suspension bridge across the A19 Tyne Tunnel approach road near the Nissan car works.

The best-documented guided busway is that at Adelaide, and its costs (not available when I wrote my October 1989 article) have since been published by the State Transport Authority in a brochure "The Northeast Busway Adelaide". For the 12 km of busway (6 km in 1986 plus 6 km in 1989) the cost came to AUD 97.8 million (about £42M), which is about £3.5M per km.

No two schemes are alike, and some of Adelaide's costs may not apply in Leeds. However, it may be useful to set out the details of Adelaide's busway costs from the STA brochure, expressed in millions of Australian dollars (AUD) at 1989 values.

Structures	17.0
Civil works	10.5
Guided track	18.9
Stations	6.3
Land acquisition	5.8
Busway landscaping	4.6
Vehicle fleet *	22.0
Utility service alterations	2.5
Preliminary design	1.3
Administration and supervision	8.9
TOTAL COST	
plus 6.4 for river landscaping, not charged to the busway	97.8
* proportional cost of 92 buses, including 51 articulated.	

† quoted in BBC "Going Places", 20/3/92.
Peterborough PE3 6BL J. H. PRICE

Bern Swiss Standard cars

Sir,

In the April issue, the photo caption to Bern 607 on page 107 says that all such first-generation Swiss Standard trams in Bern have now been withdrawn. This statement is a bit premature; on 19 March I observed 609 and 613 with matching first-generation trailers in regular service on route 5. For sure the days of those trams are numbered, but it appears that SVB still needs them, especially when route 9 needs to be reinforced for football matches at Wankdorf stadium, or for trade shows at the BEA exhibition hall.

As Zürich also gradually retires its oldest Swiss Standards (the "pedalers" have very nearly disappeared, and the series contemporary with those of Bern can still be found plying on routes 4, 6 and 10), this leaves those of Basel,

still very active, and so immaculately maintained that they retain a very handsome appearance.

CH-3172 Niederwangen PIERRE HOFMANN

Trade News

Mott MacDonald combines its railway divisions

Mott MacDonald Group is concentrating its existing railway (civil) and railway systems (M&E) divisions into a single Railway Division. Manager John Grant and Directors John Corrie and Gordon Porter have a staff of some 40 professionals, supported by complementary divisions within the Group. Its most prestigious project is the Channel Tunnel scheme, and others include the Great Belt Crossing, the Heathrow Express, and light rail schemes for major cities throughout the UK. Contact: Fiona Salter or Anne Butfield, 20-26 Wellesley Road, Croydon CR0 2UL; telephone: 081 686 5041.

Stainless tube upgrades fire appliances

The next generation of fire appliances will take to the streets with a chassis combining the best of mild and stainless steel properties, thanks to advances in welded tube technology. The breakthrough in Cromweld 3CR12 steel's application to tubular structural sections has been achieved by the solution of the techniques necessary to form 3CR12 strip into ERW precision-welded tubes. Appliance-maker Dennis has found that it can successfully weld 3CR12 tubular sections by the MIG process, using stainless wire. Contact: Tube Products, P O Box 13, Popes Lane, Oldbury, Warley, West Midlands B69 4PF; telephone: 0483 571271.

Machining of non-metallic materials

Tenmat Ltd has further streamlined production through their machine shop by purchase of a new sander capable of finishing large boards and sheets within thickness tolerances of 0.05 mm in a single pass. As their machines were designed to handle products containing asbestos, the dust extraction system is capable of meeting stringent requirements. Tenmat can now extend its machining service to virtually any commercially-available non-metallic materials, including engineering ceramics. Contact: Dave Hill, Tenmat Ltd, Bowdon House, Ashburton Road West, Trafford Park, Manchester M17 1RU; telephone: 061 872 2181.

Permal glass fishplates for Metrolink

Permal Gloucester Ltd is supplying its Comp E2 glass-fibre fishplates to Balfour Beatty Railway Engineering Ltd for the Manchester Metrolink. This material is a high-strength laminate constructed from a combination of woven and non-woven E-glass, all fully impregnated with epoxide resin. The fishplates are supplied ready drilled, and are glued and bolted to the rails with high-tensile fishbolts. Contact: Permal Gloucester Ltd, Bristol Road, Gloucester GL1 5TT; telephone: 0452 28671.

von Roll monorail at Dudley

The £20 million von Roll monorail at Dudley (stated quite wrongly by von Roll to be Europe's first public transport monorail — they forgot the Wuppertal *Schwebebahn* for example!) is claimed to be a possible pacesetter for solving traffic problems in many of Britain's congested inner cities. It is reported to have made 50 000 miles of incident-free running since entering service last summer. At Merry Hill, the monorail links three completely-enclosed stations in the shopping complex with a fourth station serving the Waterfront office development, alongside an inland waterway marina. Each train can carry 150 passengers and can run driverless or semi-automatically with a driver. Mr Bullock of von Roll