

Colin Wheeler reports...

Hidden Skills that just aren't talked about! (Or have you got Nits?)

A few older readers with long memories may remember the dreaded school visits made by 'the nit lady.' Others might recall using the Council's rat or vermin catchers, and keeping very quiet about it!!

TestPRO Ltd.

Tim Buss and Neil Spibey have, between them, no less than forty-five years experience of solving mechanical engineering problems that their clients would rather they said very little about! Both have worked for GEC, ALSTOM and more latterly AREVA. However, the last named has now closed its Technical Centre mechanical testing facility. Undaunted, and with their experience and reputation why shouldn't they be, Tim and Neil have now set up TestPRO Ltd.

Specialist Expertise

TestPRO aim to use their knowledge, skill and long experience to provide economic solutions to any mechanical engineering problem. They use test and measurement to establish the detailed causes. Their recommended solutions are practical, and rely on their own detailed knowledge of traction and rolling stock.

They are keen to assist with trouble shooting work as soon as problems arise and can offer design assistance, which may prevent the problems arising in the first place. Many companies are short of experienced engineers with this specialist

expertise, and find it difficult to justify employing their own people full time.

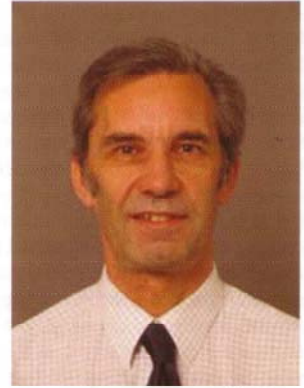
Validation testing

Tim and Neil are familiar with both depot and track working, are trained in personal track safety (PTS) and have valid certification. Typically, TestPRO will propose a package of work including preparation of a test specification, the provision of recording instrumentation, taking measurements, analysis of the results and the provision of recommendations. If required, they will then undertake any necessary re-design work, or recommend alternative components. Appropriate validation testing can also be part of the solution package.

Remaining discreet

Whilst remaining as discreet as one can about work done by Tim and Neil, the following projects completed list, provides a good guide to their expertise:

- Class 91 locomotive commissioning trials including gearbox, traction coupling and motor.
- Class 465 & 466 locomotives - investigation and redesign of traction motor due to a mounting fatigue failure problem.
- Eurostar - Software testing and control, mechanical design of 50Hz ICMU.
- MTR KCR (Hong Kong) - investigation and redesign of traction bolster due to



Tim Buss

fatigue failure.

- Arlanda Express - investigation and redesign of yaw damper bracket due to fatigue failure.
- Coradia 175 - evaluation of revised brake block design.
- Coradia 180 - investigation and redesign of yaw damper bracket due to fatigue failure.
- Class 458 Juniper - investigation into anti-roll bar mounting failure.
- Central Line - investigation into traction motor mounting failure.
- Northern Line - development of trackside condition monitoring by infrared thermography.

Catastrophic failure or unreliability

Be the problem a catastrophic failure, unreliability or simply poor performance, TestPRO are in the business of advising the best course of action to achieve a solution. Component materials, suitability analysis, test specifications, selection of measurement strategies, and the analysis and presentation of results for discussion and decision-making are all part of the service.

Both test work and consultancy are offered anywhere, including on site. Measuring the performance of equipment whilst in service, is simply part of the job. Analysis of the raw test data is done using internationally recognised software for the analysis. TestPRO's experience in mechanical design and the use of a software package providing 2D/3D detailed design solutions or test-installations helps solve many problems.

the rail engineer is all too aware of the need for real in-depth railway engineering knowledge, expertise and competence, and we wish TestPRO every success. Our industry needs them! ■

Neil Spibey
(bottom right)
assisting in
problem solving.

