

TECHNICAL INSTRUCTION

TI 032
Issue 1
May 2006
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NETWORK RAIL - SIGNAL ENGINEERING

Asbestos baseboards in apparatus cases

Relevant Standard: NR/WI/ELP/00110

This Technical Instruction gives direction to signalling technicians with regard to apparatus case baseboards which could potentially contain asbestos whilst ensuring staff are not put at risk.

Recently an industry wide survey was carried out to determine what equipment used on Network Rail's Infrastructure could potentially contain asbestos. Resulting from this survey Network Rail Work Instruction NR/WI/ELP/00110 'Maintenance of Electrification, Plant, Signalling and Telecommunications Equipment, Incorporating Asbestos Materials or Components' was issued which identified equipment likely to contain asbestos, permitted activities and banned activities.

Under the signalling equipment section, one of the items identified is apparatus case baseboards which on early versions can contain asbestos. It is important that signalling staff do not disturb these baseboards in a manner that could give rise to the release of asbestos fibres, the most likely cause being the replacement of baseboards or carrying out cable faulting where cables need to be recovered/replaced. Consequently, if a baseboard is suspected of containing asbestos, technicians must not cut additional holes for new cables, attempt to recover existing cables, run replacement cables through existing holes or carry out the wholesale replacement of such a baseboard.

If a faulty cable needs to be replaced, it passes through a baseboard suspected of containing asbestos and the cable fault is outside the apparatus case, staff are instructed to joint a new cable at intermediate point on the existing cable (suitable cable jointing kits are available through Exel Logistics via Integrator). If however the cable in question is faulty within the apparatus case and under the baseboard, staff are instructed to make a hole in the side of the apparatus case with a hole-saw for the replacement cable to pass through, apply a gland to secure the cable in position and connect as normal. If a baseboard needs to be replaced, arrangements should then be made for its removal with a specialist HSE Approved Contractor which should also be done following any remedial action following cable faults.

When the baseboard has been safely removed, the cable should then be re-routed under the apparatus case and the base of the apparatus case filled with pea-shingle. The old cable entry hole then needs to be covered which involves treating the inside of the hole with a rust inhibitor and bolting a 2mm thick piece of galvanised steel plate over the holes, fixed in position four M6 bolts and secured with four M6 nuts. Once fitted, the patch-plate should then be painted inside and out to prevent corrosion. Most parts to perform this task are generally available from engineering parts suppliers but railway specific parts such as cable glands are listed below.

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Originator's Details:-
Ron Checkman
Network Rail

PUBLISHED UNDER NR/SP/SIG/11120

Appendix A - Cable gland part numbers

Cable Type	Nominal Cable diameter (mm)	Gland Cat. No.	Diameter range
B1/D1 Single core 0.75mm ²	7	054/109245	5 to 9mm
B1/D1 Single core 1.5mm ²	7	054/109245	5 to 9mm
B1/D1 Single core 2.5mm ²	7	054/109245	5 to 9mm
B1/D1 Single core 10mm ²	10	054/109246	9 to 13mm
B1/D1 Single core 35mm ²	14	054/109247	12 to 18mm
B2/D2 Twin 1.5mm ²	11	054/109246	9 to 13mm
B2/D2 Twin 2.5mm ²	12	054/109246	9 to 13mm
B2/D2 Twin 10mm ²	17	054/109247	12 to 18mm
B2/D2 Twin 35mm ²	18	054/109247	12 to 18mm
B2/D2 Twin 95mm ²	25	054/109249	22 to 31mm
B2/D2 4c 0.75mm ²	11	054/109246	9 to 13mm
B2/D2 7c 0.75mm ²	13	054/109246	9 to 13mm
B2/D2 10c 0.75mm ²	16	054/109247	12 to 18mm
B2/D2 12c 0.75mm ²	16	054/109247	12 to 18mm
B2/D2 12c (6 pair in twisted pair) 0.75mm ²	22	054/109249	22 to 31mm
B2/D2 19c 0.75mm ²	19	054/109249	22 to 31mm
B2/D2 27c 0.75mm ²	23	054/109249	22 to 31mm
B2/D2 37c 0.75 mm ²	25	054/109249	22 to 31mm
B2/D2 48c 0.75 mm ²	29	054/109249	22 to 31mm
B2/D2 4c 1.5mm ²	12	054/109246	9 to 13mm
B2/D2 7c 1.5mm ²	14	054/109247	12 to 18mm
B2/D2 10c 1.5mm ²	17	054/109247	12 to 18mm
B2/D2 12c 1.5mm ²	18	054/109247	12 to 18mm
B2/D2 12c (6 pair in twisted pair) 1.5mm ²	24	054/109249	22 to 31mm
B2/D2 19c 1.5mm ²	21	054/109249	22 to 31mm
B2/D2 27c 1.5mm ²	25	054/109249	22 to 31mm
B2/D2 37c 1.5 mm ²	28	054/109249	22 to 31mm
B2/D2 48c 1.5 mm ²	32	054/109256	31 to 38mm
B2/D2 4c 2.5mm ²	13	054/109246	9 to 13mm
B2/D2 7c 2.5mm ²	15	054/109247	12 to 18mm
B2/D2 10c 2.5mm ²	19	054/109248	17 to 22mm
B2/D2 12c 2.5mm ²	19	054/109248	17 to 22mm
B2/D2 12c (6 pair in twisted pair) 2.5mm ²	26	054/109249	22 to 31mm
B2/D2 19c 2.5mm ²	23	054/109249	22 to 31mm
B2/D2 27c 2.5mm ²	27	054/109249	22 to 31mm
B2/D2 37c 2.5 mm ²	31	054/109249	22 to 31mm
B2/D2 48c 2.5 mm ²	35	054/109256	31 to 38mm
