

B&A

the electrical digest

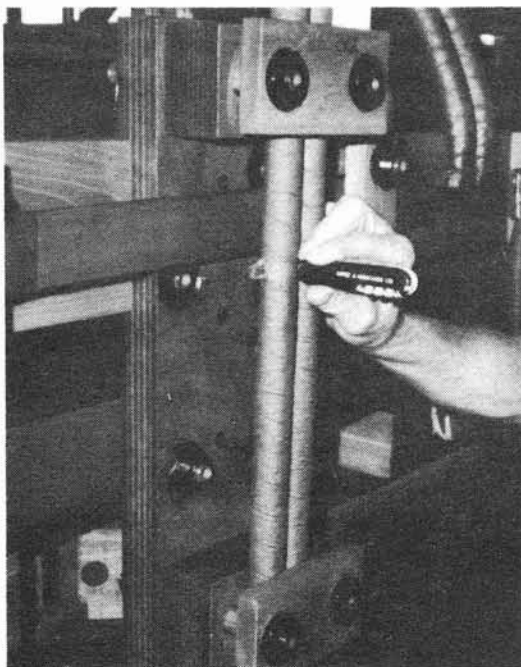
Edited by H. G. Brosz, P.Eng.

INPLANT TRANSFORMER INSPECTION

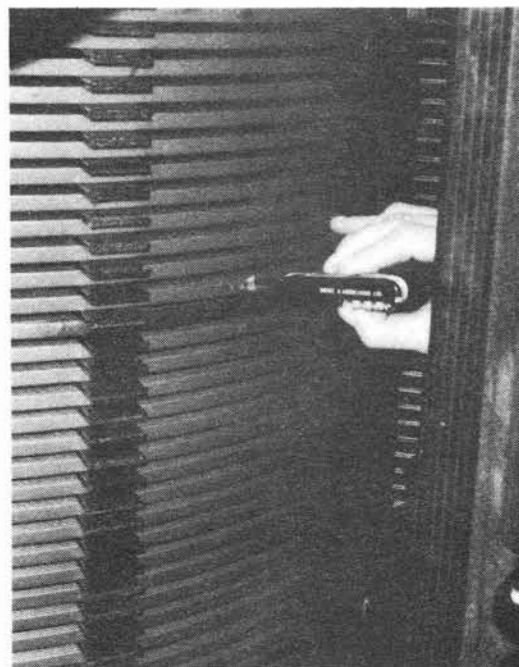
To minimize breakdowns in transformers after they have been built, Brosz & Associates perform Inplant Transformer Inspections.

While a transformer was being built at a major Canadian manufacturing plant. The client's consulting engineer called in Brosz & Associates to witness production testing on the transformer.

The transformer passed all the standard tests. However, Brosz & Associates recommended the testing to be taken a step further with a special test called, the Basic Impulse Level Withstand Test (BIL).



Damaged L. V. Insulation found, left repaired



Damaged H. V. Turn Insulation found, left repaired.

Upon implementing this test the transformer failed to pass it on all three phases. Not only once, but twice, with a total of six failures! Out of the six failures, four were insulation failures caused by poor workmanship in the coil handling area, and the other two were insufficient clearance to ground problems created by poor design.

What astounded the engineers was that this was an ordinary 1500 KVA drytype transformer which should have passed BIL testing without difficulty.

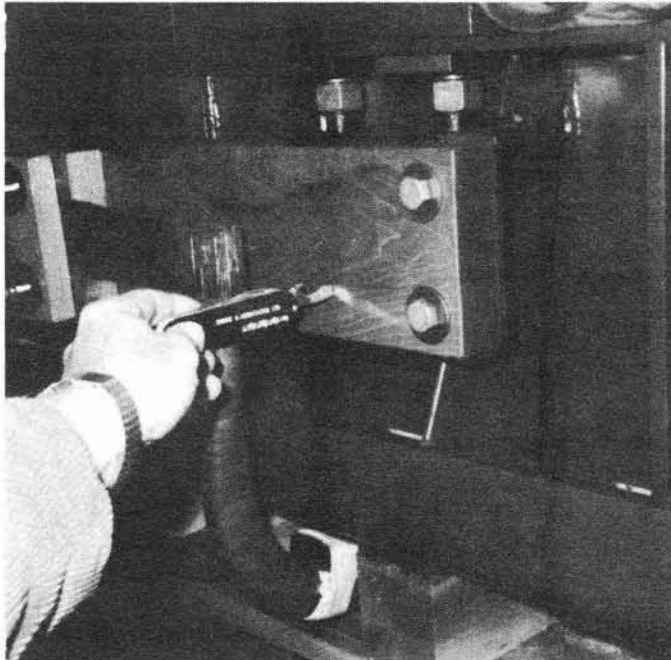
Brosz & Associates displayed their experience by using the BIL test along with the standard production tests. The re-running of their tests insured that the ultimate user received a highly reliable transformer with a probable long life expectancy.

(Please see over)

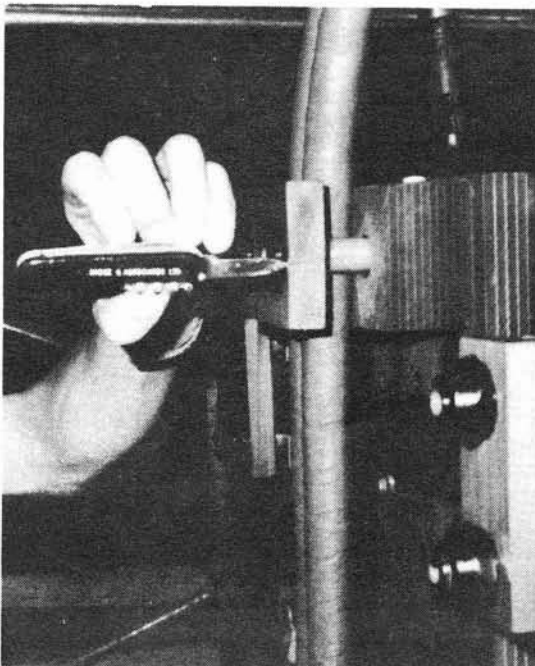


INPLANT TRANSFORMER INSPECTION

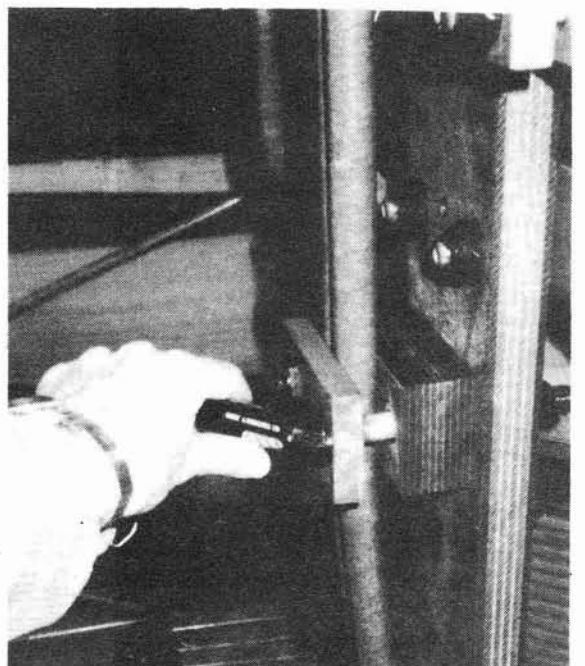
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L. V. Mounting Board found cracked , left repaired



Wooden L.V. Restraining Brace, found cracked (2 locations)



Left replaced with synthetic multi-layered material