

TECHNICAL INFORMATION SHEET TIS1002 – Dec 2008

ROLLER CONTACT UPGRADE FOR ATL “AT” ON-LOAD TAPCHANGERS

Early model Associated Tapchangers Limited (ATL) type AT tapchangers may exhibit signs of uneven erosion on the transitional roller contacts in the form of crescent shaped depressions - see photo. This can be caused by the rollers not rotating to present a new face for each make/break operation. This can considerably shorten contact life, especially where the step kVA is high (load current x step k.volts), and may lead to other complications if left until the wear pattern is extreme. This tendency is more pronounced if the tapchanger is operating over a limited tapping range, particularly hunting over just two taps.

You may wish to consider upgrading your AT tapchangers by fitting the latest design of transition arcing contacts, which have ratcheted rollers similar to those used for the main arcing contacts. The ratchet mechanism is applied to both the moving scissor rollers and the corresponding fixed contact transition rollers. Pawl springs are added to the fixed transition rollers to provide indexing.

The benefit of this upgrade is that the transition contacts are positively indexed and rotate in one direction only, distributing arc erosion evenly around the circumference of the roller, increasing contact life and reducing the risk of sudden failure.



Original plain roller contact on scissor arm showing signs of uneven wear. The solution to this problem is to upgrade to ratchet rollers.

Description	ATL part no.	Qty-3ph 17 position	Note
Moving Scissor Assy (plain)	571890-B	3	Original design
Moving Scissor Assy (ratchet)	591801-A	3	Upgrade
Fixed Contact - plain arcing	313607-6	51	Original design
Fixed Contact - ratchet arcing	561268-1	51/102	Upgrade
Pawl Spring	562036-2	102	Upgrade

Upgrade components are normally available ex stock Melbourne.

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