DCA319 End Clamp Test
Before Collaring

TS-SSC 91-235
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Both DCA317 [1] and DCA318 [2] suffered turn to turn shorts during lead end clamp installation. Both shorts were located in the upper inner coil on the preform side of the lead end key, between the tap 18A turn and the tap 17A turn.

The DCA317 coil was repaired, but no cause of the short intrinsic to the coil was ever found [3].

Both DCA317 [4] and DCA318 [5] had more than the usual amount of kapton shim added to the interior surfaces of the lead end clamp insulators (15 mils in both cases.) Because of this, there is some suspician that the end clamp installation may be over-stressing the coils, and leading to insulation damage causing turn to turn shorts.

It has therefore been decided [6] to install end clamps on DCA319 before collar pack installation. For this purpose, a nominal amount of kapton shimming (8 mils) for the end clamp insulators has been prescribed [7]. A special traveller for the test end clamp installation is being developed by Quality Assurance.

References

1. S. Delchamps, "Turn to turn Short in DCA317", TS-SSC 91-207.
2. J. Strait, "Location of turn to turn short in DCA318", TS-SSC 91-234.
3. S. Delchamps, "DCA317 Coil 1007 Turn to turn Short II", TS-SSC 91-233.
4. S. Delchamps, "DCA317 Lead End Extra Kapton", TS-SSC 91-203.
5. S. Delchamps, "DCA318 Lead End Extra Kapton", TS-SSC 91-228.
6. D. Smith, private communication.
7. S. Delchamps, "DCA319: Extra Kapton for End Clamp Test", TS-SSC 91-232.

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