DCA315 Lead End
Extra Kapton

TS-SSC 91-172
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September 5, 1991

Position (inches from collar laminations)	DCA313 I-III	DCA313 II-IV	DCA314 I-III	DCA314 II-IV	DCA315 I-III	DCA315 II-IV
0.25	-12	-8	-9	-1	-10	-7
1.0	-15	-11	-10	-4	-10	-10
2.0	-10	-6	-8	-2	-9	-7
3.0	-8	-6	-5	0	-11	-4
4.0	-6	-3	-3	+1	-3	-5
5.0	-5	-1	-1	+2	-1	+1
6.0	-5	-1	-1	+2	0	+2
Hydraulic Installation Pressure (psi)	7100		9520			
pi-tape deflection 1.5" from collars (mils)	2		4 (return end was 4 mils)			
Extra Layers of Kapton (5 mils each)	0		1			

Table 1. Deviations of the Collet Insulator Inner Diameters from Nominal Diameter 3.948"

The DCA315 numbers are within 2 mils of the DCA313 measurements in the straight coil section of the end clamp. DCA313 had a reasonable installation pressure and can deflections between 2 and 5 mils (except for the horizontal direction.)

However, the pi-tape deflection of the DCA314 lead end clamp was several mils higher than DCA313, indicating tighter clamping in the straight section. The higher hydraulic pressure for the DCA314 lead end clamp might be due to effects of the green putty used to pot the inner to outer splices. (In general, lead end hydraulic installation pressures have been greater than return end pressures for the same or lower can deflection.)

I therefore recommend installing the lead end clamp of DCA315 with **a single additional 5 mil layer of kapton** on the insulator inner surfaces. This may give a high hydraulic pressure as in the case of DCA314, but the can deflections will indicate that the clamping load is in the nominal range (3 - 5 mils of pi-tape deflection in the straight coil section of the end clamp.)