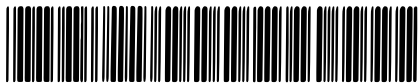


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ISR PERFORMANCE REPORT

CM-P00071577

Distortion of the closed orbit in Ring 2

Since the 1973 shutdown, the closed orbit in Ring 2 has been badly distorted. An analysis of the closed orbit made by B. Autin revealed that units 462 and 458 were possible sources of error.

Checks performed on 11th May 1973 in octants 4 and 8 (on magnet units 802, 806, 814) did not show any errors in cabling and no debris in the magnet gaps was found. When checking the field polarities of the two small compensators for the sodium curtain near to unit 462, it was noticed that the field configurations in Rings 1 and 2 were not symmetrical, i.e. in Ring 2 the field direction of the two compensators is the same as that of the central magnet whereas in Ring 1 they are reversed. The magnetic field outside the vacuum chamber was about 300 Gauss. This might well be the reason for the closed orbit distortions measured in Ring 2.

It is, therefore, proposed that orbit measurements are made with these magnets off and with the field reversed in the two compensators at the earliest convenience.

S. Pichler