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Fairmatt Miami ride arm cracking

During the NDT inspection of a Fairmatt Miami ride (built in 1993) cracking was found on one of the main drive arms. The cracking was where the box section arm is welded to the drive ring plate (Point A on the attached image). While it is not unheard of for this ride type to crack in this location, this particular ride had cracking in the same area on both sides of the same drive arm and this cracking had returned through a previous weld repair.

The back of the drive arms are not accessible due to the drive gear ring teeth and access can only be obtained by completely removing the arm from the ride. It is worth noting that generally this procedure cannot be completed “in the field” and may require significant down time.

The return of the crack would suggest that the initial weld repair was unable to cover the full length of the crack. It is possible that this is because the crack has propagated around the back of the arm into the inaccessible area. The fact that this ride has cracking in the same areas on both sides of the one arm could suggest that the crack has penetrated the full length of the back of the drive arm (area B on the second attached image).



