TO: All operators of Morgan Manufacturing Wood Coaster Vehicles

FROM: D. H. Morgan Manufacturing

DATE: March 7, 1988

On Saturday, March 5, 1988, a road wheel axle failed on the Colossus Coaster at Magic Mountain in Valencia, California. The failure occurred at the transition from the 1.875 diameter bearing shaft to the 2" square shaft. The failure caused the wheel and stub end of the axle to separate from the coach. The coach dropped down approximately 1" to the safety shoe and returned to the station. Fortunately no guests were injured.

Preliminary investigation indicated the failure resulted from a crack propagating in the radius, possibly from a nick or tool mark. It appears that the axle may have run for some time with a partial crack before the failure occurred.

At this time we believe this problem is unique to the ride at Magic Mountain but we are requesting that all parks conduct the following inspection prior to operating the ride to the public this season:

- Remove road wheels, bearings and seal spacers from all axles.
- 2) Clean the end of the axle thoroughly, particularly the fillet radius at the transition from the 2" square section to the 1.875" round section.
- 3) Use magnaflux or ultrasonic to inspect the radius around its full diameter. (Ref. AS 3007)
- 4) In some cases a small tool mark in the radius may give an indication. Hand polish the mark out and re-test.

If your axles have already been tested this year please confirm that this radius was specifically tested and re-test if there is any question. New axles received from us this winter do not require testing at this time.

Please send us a report of your findings as soon as possible (to our Fax #(408)438-6014 if possible) so we can determine if the problem exists in any other location.

We will evaluate these results and advise you if any special precautions are in order.

We thank you in advance for your cooperation in this matter. It is our opinion that this type of cooperation and communication is imperative to keep our industry safe.



