

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

Notice of Safety Advisory on RoadRailer Trailers

Agency: Federal Railroad Administration (FRA), DOT.

Action: Notice of Safety Advisory.

SUMMARY: FRA is issuing Safety Advisory 99-03A in order to modify and update previously issued Safety Advisory 99-03 which addressed the securement of floor beam cross-members on RoadRailer® trailers. See 64 FR 61377 (November 10, 1999). FRA is issuing this revised Safety Advisory to address the securement of lift rods on RoadRailer® trailers in order to prevent the highway tandem wheels on these trailers from falling to the rails on moving trains. This Safety Advisory also provides updated information regarding the actions being taken within the industry regarding the securement of floor beam cross-members and lift rods on this equipment.

FOR FURTHER INFORMATION CONTACT: Gary Fairbanks, Mechanical Engineer, Motive Power and Equipment Division, Office of Safety Assurance and Compliance, FRA, 400 Seventh Street, SW, RRS-14, Mail Stop 25, Washington, DC 20590 (Telephone 202-493-6322/ Fax 202-493-6230)

SUPPLEMENTARY INFORMATION:

In November of 1999, FRA issued Safety Advisory 99-03 based on its discovery that several RoadRailer® trailers operated by Triple Crown Services (Triple Crown) had experienced failures of floor beam cross-members. See 64 FR 61377. The cross beams connect the highway tandem wheel set to the body of the trailer via slide rails. The failure of the cross beams allows the weight of the tandem wheel set to deflect the slide rails to the point where the highway tires contact the rail. Prior to the issuance of Safety Advisory 99-03, FRA notified Wabash National Incorporated (Wabash), the manufacturer of RoadRailer® equipment, and requested that Wabash randomly inspect trailers at the Fort Wayne, Indiana, Triple Crown facility. Representatives of Wabash, Triple Crown, the Federal Highway Administration (FHWA), and FRA conducted a series of inspections at this facility in October of 1999. The cross-member defects found during these inspections could be classified into four categories:

1. A weld crack at the slide rail to I-beam cross-member;
2. A crack in the cross-member I-beam flange (which usually starts at the end of a weld);
3. A crack which has progressed into the web of the I-beam from the flange;
or
4. A cross-member broken into two pieces.

The practice of attaching the tandem wheel set slide rails to the trailer body by welding to floor cross-member I-beam flanges has been the accepted method of highway trailer fabrication for many years. This method is currently being used by nearly all van

trailer manufacturers, and is considered safe and reliable when properly applied. It should be noted that there are some RoadRailer® trailers which have been in service since January 1988 that have not exhibited signs of weld or cross-member cracking in the above noted areas. Currently, the entire fleet of Triple Crown RoadRailer® trailers is in the process of being inspected or repaired. All inbound and outbound trailers are being inspected. Defective trailers will be withheld from service, transloaded, or repaired prior to being assembled into a train, depending upon the condition of the trailer. At this time, the manufacturer is considering one broken floor beam cross-member or four successive cross-members with cracks to be sufficient cause to withhold the trailer from service or to repair the trailer prior to continuing it in service.

Subsequent to the issuance of Safety Advisory 99-03, FRA discovered that several RoadRailer® trailers operated by Triple Crown Services (Triple Crown) and the National Railroad Passenger Corporation (Amtrak) have recently experienced failure of the tandem axle lift rods. These spring loaded lift rods retract the highway wheel set when the trailers are operated in the rail mode. Direct inspection of the lift rods is not possible by personnel positioned on the ground and standing adjacent to the trailer because the lift rods are encased in a steel tube and are located above the highway tandem axles at the rear of the trailer near the centerline of the trailer body. A broken lift rod will result in the highway tandem wheel set lowering toward the rail. Furthermore, if one or more of the lift rods fail per trailer the highway wheel set could potentially strike a close clearance object or the highway wheel set could drop completely to the rail. Thus, a high potential for derailment exists if a highway wheel set were to drop onto the rails.

An informal inquiry into the potential causes for the recent failures of the tandem axle lift rods determined that recently manufactured lift rods were not properly heat treated when manufactured and thus, may not be of adequate strength to handle the high loads encountered during the operation of the equipment. Due to the safety implications related to the failure of the lift rods, the National Highway Traffic Safety Administration (NHTSA) in conjunction with Wabash has issued a voluntary recall of equipment outfitted with tandem axle lift rods manufactured within the last two years. See NHTSA Recall Number 00V-025 and 00V-344. Wabash will also provide NHTSA and FRA with quarterly progress reports on the status of the recall. Furthermore, Wabash has issued six “Service Bulletins” regarding the inspection and repair of the RoadRailer® trailers in response to the recent lift rod failures and the failures of the floor beam cross-members discussed in Safety Advisory 99-03. These bulletins include:

- SB2000-001: RoadRailer® cross-members at front of slide reinforcement to prevent cracking; Priority - Mandatory (part of NHTSA Recall Number 00V-025 and 00V-344). This bulletin covers the inspection and installation of a bolt-on reinforcement channel that will increase the strength of the cross-member and reduce the stress at the welds. A three-inch diameter blue decal will be applied to the front of each trailer just above the Vehicle Identification Number (VIN) tag to indicate the rework has been completed.
- SB2000-002: RoadRailer® slide suspension body rail rear attachment reinforcement; Priority - Voluntary (at customer expense). This bulletin covers the modification of the aft end of the suspension body rails on standard dry

freight RoadRailer® trailers. This reinforcement modification to the rear stop pipe will reduce the potential of the weld cracking.

- SB200-003: RoadRailer® slide suspension hold-down replacement and repair of cracks between lock pin holes in slide body rails; Priority - Mandatory (Warranty). This bulletin covers the replacement of the 3/8" thick trailer slide body rail suspension hold down brackets with 1/4" brackets that have more clearance for the bottom lip of the body rail. The 3/8" bracket caused stresses in the body rails and resulted in cracking between pairs of holes in the body rail.
- SB2000-004: RoadRailer® Lift Rod Replacement due to improper material; Priority - Mandatory (Warranty). This bulletin covers the replacement of trailer suspension lift rods that did not have the steel properly heat treated, and, therefore, may not be of adequate strength for the application. These lift rods can see high loads during the transfer and rail modes that require the material used in the lift rods to be of high strength heat treated steel.
- SB2000-005: RoadRailer® cross-member inspection; Priority - Recommended. This bulletin covers the procedures for the inspection of cross-members and the repair of the cross-members over the body rails during regular trailer inspections.
- SB2000-006: RoadRailer® Ultra Cube slide suspension body rail rear attachment reinforcement; Priority - Voluntary (at customer expense). This bulletin covers the reinforcement procedures for the aft end of the suspension body rails on Ultra Cube trailers. Severe impact of the slider suspension into the rear stop pipe can force the body rail to bow upwards causing the bottom of the vertical leg of the

body rail of the extension to crack.

Recommended Action:

Until the root cause(s) of the floor beam cross-member failures and the lift rod failures can be determined, and the appropriate long-term repairs effectuated, FRA recommends that the following actions be taken with regard to all RoadRailer® trailers:

- Each trailer should be inspected upon receipt at a facility from a highway motor carrier prior to being transferred to the rail mode to determine whether it has any of the following conditions:

1. One broken floor beam cross-member.
2. Four successive cross-member with cracks.

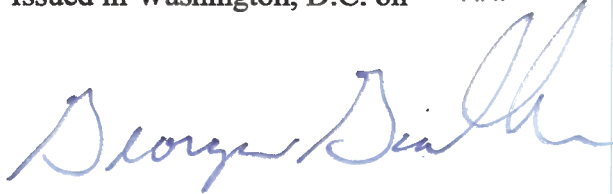
If either of the conditions is found, the trailer should be held until a repair can be made to correct the deficiency, or if loaded, the lading should be transferred to another trailer that has been inspected and found not to have any of these conditions.

- Each such inbound trailer should be inspected upon its arrival in a train prior to its transfer to the highway mode. If either of the conditions noted above is found, the trailer should be held until a repair can be made to correct the deficiency, or if loaded, the lading should be transferred to another trailer that has been inspected and found not to have any of these conditions.
- All operators of RoadRailer® trailers should obtain a copy of the above listed “Service Bulletins” and should follow all of the manufacturer’s recommended

inspection, repair, and modification procedures contained in those bulletins. To obtain a copy of the bulletins, operators should contact Mr. John Gabriel, Customer Service, Wabash National Corporation, P.O. Box 6129 Lafayette, IN 47903 or telephone (765) 771-5404.

FRA may modify Safety Advisory 99-03A, issue additional safety advisories, or take other appropriate action to ensure the highest level of safety on the Nation's railroads.

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George Gavalla
Associate Administrator
for Safety