Form Approved: O.M.B. No. 2127-0008

U.S. Department of Transportation

National Highway Traffic Safety Administration

DOT Auto Safety Hotline

Vehicle Owner's Questionnaire

To Report Vehicle Safety Defects
1-888-DASH-2-DOT
(1-888-327-4236)
INTERNET:www.nhtsa.dot.gov/hotline

FOR AGENCY USE ONLY 100148

Date Received	Repository ☐
21-JAN-2010	Reference No. 10301681

OWNER INFORMATION (Type or Print)

Name	[redacted]		
Address	[redacted]	Daytime Telephone Number [redacted]	E-mail Address [redacted]
City GREEN BAY	State WI	Zip Code [redacted]	Evening Telephone Number

The information you provide will be used to identify potential safety-related defects. We may share your information with the applicable vehicle manufacturer during an investigation or recall in accordance with the routine uses described in the agency's Privacy Act notice. See 49 FR 53971 (Sep. 3, 2004).

VEHICLE INFORMATION

17 digit Vehicle Identification Number Located at bottom of windshield on driver's side	Make	Model	Model Year
5A4RTER2382[redacted]	LOAD RITE	BOAT TRAILER	~~2005~~ 2008

Date Purchased	Dealer's Name and Telephone Number			Engine: No: Cylinders	Fuel Type:
Original Owner ☐	Dealer's City	State	Zip Code		

Transmission Type	☐ Antilock Brakes ☐ Cruise Control	Powertrain	Multiple Failure:	Incident Date(s) 01-JAN-2010

FAILED COMPONENT(S)/PART(S) INFORMATION

Vehicle Component Code: 162000 STRUCTURE: BODY	Failure Mileage 1500	Failure Speed 55

ADDITIONAL ITEMS TO BE COMPLETED WHEN REPORTING A TIRE FAILURE

Tire Make	Tire Model (Name or Number)	Tire Size (Example P215/65R15)
DOT No. (Example: DOTMAL9ABC036)	☐ Original Equipment ☐ Prior Repair	Failure Location:
Tire Component Code		Tire Failure Type:

ADDITIONAL ITEMS TO BE COMPLETED WHEN REPORTING A CHILD SEAT FAILURE

Make:	Date Manufactured:	Model No./Name:
Seat Type:	Installation System:	
Child Seat Component Code:	Failed Part:	

APPLICABLE INCIDENT INFORMATION

(Please describe in detail the incident(s), Failure(s), Crash(es), and Injury(ies).)

Crash ☐ Yes ☒ No	Fire ☐ Yes ☒ No	Number of Persons Injured	Number of Deaths	Reported to Police
		0	0	N

Narrative Description of Incident(S), Crash(es), and Injury(ies).
Please describe (1) events leading up to the failure, (2) failure and its consequences, and (3) what was done to correct the failure; i.e, parts repaired or replaced (and if old part is available).

TL*THE CONTACT OWNS A 2008 LOAD RITE, MODEL 5S-AC20T4200102TB1 BOAT TRAILER (N/A). THE REAR PASSENGER SIDE FENDER BROKE OFF WHILE HE WAS DRIVING APPROXIMATELY 55 MPH. THE INCIDENT ALMOST CAUSED A CRASH TO OCCUR. HE WAS ABLE TO STOP THE VEHICLE; HOWEVER, HE NOTICED THAT THE OTHER FENDERS WERE "FLAPPING" IN THE WIND IN AN ATTEMPT TO DETACH FROM THE TRAILER AS WELL. THE MAIN I-BEAMS HAVE ALSO CRACKED WHICH CAUSED THE FENDERS TO MALFUNCTION. HE SENT PHOTOGRAPHS TO THE MANUFACTURER AND THEY ADVISED HIM THAT THEY WOULD REBUILD THE TRAILER TO ITS ORIGINAL STATE. HE TOOK THE VEHICLE TO A REPAIR SHOP AND WAS TOLD THAT THE I-BEAMS WERE DEFECTIVE DUE TO THE DESIGN. THE CURRENT AND FAILURE MILEAGES WERE 1,500.

Include, if available: Police/Fire Department Report, Photos, and Repair Invoice. ATTACH ADDITIONAL SHEETS IF NECESSARY

Written for the Hull Truth.com and posted on the web

I am compelled to alert other boaters who have purchased or are using Load Rites' model 5S-AC20T4200102TB1 Five Star 2008 tandem trailers of three major safety hazards.

I purchased a new 2008 Proline 20 Sport with a 2008 Load Rite 5 Starr trailer from Hanes Outdoors in VA in August 2009. In August I drove to VA with my pickup truck to tow the new boat and trailer home to Green Bay, WI. At the dealer I had them show me the tongue weight of the trailer to ensure I would not have issues of trailer swaying from wrong tongue weight. The tongue weight measured 270 lbs. I also asked the dealership to be sure tire pressure was correct and they assured me that the tire pressure was within spec. While towing the trailer and boat back to Green Bay I did notice a very rough ride. The trailer bounced terribly across every bump in the road. After getting to Green Bay I noticed the two lock nuts on the bolts which hold the Tie Down Engineering surge brake to the tongue of the trailer where within one turn of coming off. Wow, that could have been a major disaster on the highway with loss of life from my trailer hanging by its safety chains swinging into oncoming traffic. I called Load Rite and was put in contact with Mike Sodano, a sales rep at Load Ride. For the Tie Down Engineering brake problem Mike put me in contact with Roy at Tie Down Engineering and Mike stepped aside. After several phone calls with Roy at Tie Down Engineering it was determined the lock nuts were defective and Tie Down would send me nylon locking nuts (instead of the special metal deformed locking nuts that came with the trailer) and new shoulder bolts for the surge brake to trailer tongue connection. The new bolts and lock nuts have held to date. As for the rough ride from the trailer torsion suspension Mike Sodano said and I quote **"The torsion axles are quite compliant and should offer you a good ride."** Mike said to check to make sure my tire pressure was not over the 50 psi rating of the tire. So, I check them all and report back that the tires are at 40 psi. Mike then tells me to run them at 50 psi cold temp which is the max rating on the tire. Won't this just aggravate my hard ride? This was the end of Mike's concern about my experiencing a rough ride. Wait for more of the story before jumping to conclusions. I then question whether the trailer is sized according to the design manual on Load Rites website. The boat weight is 3700 lbs per Pro-Lines web site. Then according to Load Rites web trailer selection manual, it says to add 10% for cargo which brings the weight to 4070 lbs. The selection manual again says to choose a trailer one size larger from the closest weight capacity of the calculated trailer weight. This is not the trailer that was selected by Load Rite for carrying my boat and sold to Hanes Outdoors. The capacity of the trailer carrying my boat is 4,200 lbs according to the label on the trailer. Mike Sodano again says everything is just fine and don't worry about it my trailer is rated for 4,600 according to him which is in conflict with the numbers on the trailer sticker. This recommendation still contradicts Load Rites own selection manual online.

Move forward to the Florida trip on January 1, 2010. Weather was a brisk zero degrees Fahrenheit leaving Wisconsin. My friend is following my truck and boat with his truck and boat. Deciding not to go through Chicago we take highway I-43 to highway I-39 in Illinois. Just across the border in Illinois I notice the left rear fender of the tandem trailer acting differently then all the other fenders. As a semi goes past the boat trailer the left

rear fender sways back and forth nearly catching the sidewall of the rear tire. I called my friend in the truck behind me to see if he is seeing the same thing. He confirms the fender has broken away from the support on the rear support. I stop at the next exit and inspect the damage. I stopped quick enough to avoid damage to the tires or loosing the fender. I remove the two remaining front bolts for the fender and store it in the rear of the truck. I inspect the other fenders and notice some small cracks in the top of the fender radius but they are still attached at the bolts on the supports. We get back on the highway and in another 20 miles I notice the left side front side fender acting in the same manner as the rear side fender did. It is also broken loose from its rear support and swaying back and forth. I again stopped and removed the two bolts that were still holding the left front fender onto the front support and store the fender in the truck. Again, I looked at the two fenders on the right side which were attached to their supports on both ends of the fenders. Back on the highway and another 50 miles down the road I see right rear fender flying at my friends' vehicle behind me! The fender had cracked away at all four bolt locations and launched itself into the air at my friends' truck. It luckily misses his truck and lands in the ditch along the highway. If this had been the drive side, the fender would have gone through his windshield. I stop again and as a precaution, remove the last fender which has cracked through around one of the mounting bolts so it does not launch out into the highway. The vibration in the slotted I beam frame at the rear of the trailer is so bad it has also broken the wires from the taillight thereby disabling its function. I stop and re-solder the broken wires onto the copper strips inside the lens. Day one travel nightmare is complete. We complete the trip without fenders on the boat trailer and start the process of analyzing what went wrong.

The following is my assessment of what went wrong and why.

My assessment:

1. The trailer is not sized according to Load Rites own manual for my boat weight.
2. The rough ride exhibited by the trailers torsion suspension is also suspect. I can bounce on a leaf spring trailer of the same load size and get movement of the frame relative to the tires. I can bounce all day long on this Load Rite trailer and there is no shock absorption from the torsion suspension.
3. The patented slotted I beams are great to install axles, fender supports and taillights onto the I beam without drilling the flange of the I beams like other manufacturers. However, it compromises the structural integrity of the I beam and allows the fenders to flap in the wind as the supports are only held in with one bolt. The rear fender support at the back of the I beam is the worst for deflection. The forward supports are a little more rigid as they are closer to the axle clamping bolts which stiffen the bottom of the I beam. This difference in defections of front and rear fender supports is what causes the twisting of the fenders and the ultimate metal fatigue failure. Other trailer manufactures have extra supports at the rear of their I beams to stop the twisting of their I beams. Other trailer manufactures have u bolt clamps over the I beams into the fender supports and are held rigid from both sides of the I-beam. Others have an angle galvanized steel

member that parallels the aluminum I-beam to hang the fender supports off of. Load Rite engineers needs to look into this as part of the solution.

4. The taillight wires have no extra loop of wire or any shrink on the connection to absorb the shock which is why they break off. The taillights are also connected to the slotted I beam at the very rear of the I beam and exhibit the most twisting motion from bumps in the road. The slotted I beam bottom half flange twists with little force applied in the static condition.

Here is Mike Sodano's response after numerous e-mails to fix the underlying problem:

"I haven't denied that you were involved in a dangerous situation brought about by your Load Rite trailer. I simply stated that the issue most likely stemmed from an assembly error and not a material issue. I am willing to send you any parts you need to bring your trailer back to original condition."

Sorry, I am not willing to launch new fenders into traffic on the highways and possibly cause a fatality on the roadway without fixing the underlying problem. Either fix these structural problems or make a more compliant suspension system so it does not impart shock loads to the components on the trailer thereby causing safety issues.

According to NHTSA web site Load Rite Company has the obligation:

If a safety-related defect exists in a motor vehicle or item of motor vehicle equipment, the manufacturer must provide a remedy at no cost to the owner. Your complaint is the first step in the process. I will file the report next week.

Simply replacing broken parts and not correcting the underlying problem does not meet this safety requirement. I am seriously concerned for my safety and others traveling around this trailer on any future trips with the trailer design as is, for fear of causing a fatal injury to someone if the fenders again break away from their supports on the trailer.

Mike Sodano would not forward my concerns to Load Rites safety representative or to the President of Load Rite. I did send a letter directly to Load Rites President, George Branca, on Thursday January 7th 2010. I am awaiting a response. I have spent a considerable amount of money on a trailer and boat I thought was of excellent quality and a purchase I should be proud of. Load Rite needs to step up to the plate and make this right even if it means a new trailer that is sized per their sizing manual and does not have the other safety concerns of fenders flying off on the highway.

Sincerely,

[redacted]
Mechanical Engineer
Green Bay, WI

January 26, 2010

RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased,
VIN # 5A4RTER2382[redacted]

Mr. Branca,

I have received an email from Mike Sodano stating that Load Rite has elected to repair my trailer at a qualified repair facility near my present location on St. George Island, Fl. No details as to what would be repaired or how the repair would be arranged were specified in the email.

First, I would like to thank Load Rite for acknowledgement of the problem. I am disappointed that Load Rite does not balance tires on trailers at the factory before delivery to the dealer. In the last email warranty response to me, Mike references the maintenance manual as an excuse for Load Rite not initially balancing the tires. This policy set in motion an almost tragic event on the roadway involving one of your trailers that only had 1500 miles on it. I contacted Load Rite only days after my initial trip from the dealer to my home in Wisconsin (August 2009) and Mike Sodano never mentioned checking the balance of tires in his email response to me.

After receiving the email from Mike Sodano that stated imbalanced tires was the likely cause of the trailer failure, I had the tires checked and balanced. One tire/galvanized coated rim assembly was found to be out of balance and out of the allowable balance tolerance. It is my belief that this caused the trailer to go into "flutter" mode.

Flutter mode is a synchronized vibration that occurs when two regular, rhythmic motions coincide in such a way that one feeds the other, drawing additional energy from the surrounding flow. "Out-of-balance tires seldom lead to structural failure of the car because automobile suspensions are vastly overbuilt for the loads they normally encounter" (Air & Space Magazine article, March 2001). I have attached a condensed version of some articles on flutter for your information.

Based on further analysis of your patent pending I-beams and their connections to the axles I have also observed that the clamping forces from the head of two carriage bolts attaching the axle to the I-beam are inadequate to properly contain the I-Beam from flexing from excitation of tire imbalance on both sides of the trailer.

So as not to excite the natural frequencies of the inadequately bolted connections of the Tie Down Engineering axles to the I-beams while using this trailer at highway speeds, tire balance is a critical step in the assembly of your trailer. The natural frequency of your I-Beam structure is too close in relationship to unbalance of tires. As noted in the attached article from Dexter Axles Inc. you must change the natural frequency of your frame assembly to avoid flexing of I-Beam structure from minor/major tire imbalances that occur from day to day travel. If the condition exists, damage to the vehicle's

structure can occur. Either the structure should be stiffened or the suspension characteristics should be altered to prevent this "in phase" behavior.

In my view, in order to adequately fix my trailer, the following repairs must be accomplished to adequately repair the trailer and satisfy my safety concerns:

1. Replace both cracked I-Beams with new I-Beams. 3/16 inch web thickness on the vertical member.
2. Both I-beams will be u-bolted to the Tie Down Engineering axle flange pads with two stainless steel u-bolts per axle plus the two carriage bolts.
3. All six fender supports will be attached with stainless steel u-bolts around the I-Beam, along with the one carriage bolt per support.
4. The new (replacement) fenders should be longer so the mounting holes are further from the fender edge, making it less likely to break through from vibration. Rubber washers for attachment of the fenders to the support will also be provided.
5. The rim and tire that was found to be defective (out of balance and out of the allowable balance tolerance) will be replaced with a new tire and rim that has been balanced prior to installation on the trailer. I also will be reimbursed for the cost of balancing all of the tires, which should have been balanced at the Load Rite factory when manufactured. $28.00.
6. Both taillights should be replaced with submersible LED versions as a good will gesture.

Mike Sodano's last email asked if I had located a repair facility in my area. I have found a repair facility in Panama City that feels they can conduct the necessary repairs of the trailer. The facility is Hi-Tech Maine, Inc. 2431 Industrial Drive, Panama City, Fl 32405. The contact person is Brad Aufdencamp. Brad can be reached at 850-215-8324 or email at hitechmarine@knology.net.

Please provide me with verification that this facility will be authorized by Load Rite to conduct the repairs, and instructions as to how the repair of the trailer should be arranged and coordinated between Load Rite, the repair facility, and myself. Also confirm that the necessary parts will be shipped directly to the repair facility.

Parts List

1. 2 new pre-formed side I-beams
2. 4 stainless steel u-bolts for attachment of the I-beam to the axle
3. 4 carriage bolts for attachment of the I-beam to the axle
4. 6 new fender support brackets
5. 6 stainless steel u-bolts for attachment of the fender support to the I-beam
6. 6 carriage bolts for attachment of the fender support to the I-beam
7. 4 new fenders as specified above
8. Rubber washers for the fenders
9. Stainless steel bolts for attachment of the fender to the fender support
10. Nylon locking washers for all bolts
11. New tire and rim assembly - check balance before shipment.

12. 2 new LED taillight assemblies, with wires attached, all fittings and ends shrink wrapped and the coupling provided for attachment to existing wiring
13. The top cap for the front jack post
14. 1 cable winch hook (it is broken)
15. Other assembly parts and supplies as required by the repair facility

I will be forced to place my boat in storage in a neighboring town for the duration of the repair of the trailer, at a cost of $125.00 per week. I feel it would be reasonable for Load Rite to reimburse me for the cost and inconvenience of the storage.

Sincerely,

[redacted]
Mechanical Engineer

Dear [redacted]
As you are aware, Gary is unavailable to this discussion at present.
I have spoken with Mr. Branca and Tom Morrison, VP. We reviewed your evidence, claims, and The Hull Truth postings on the subject.
The frame profile on your trailer, 5.25" x 3", is the same frame profile used on the 5200 lb capacity model variant. We are confident that the frame is capable of handling the load you've specified.
We are in agreement that the entire issue stems from an out-of-balance condition with one or more of the tires on your trailer. Based on the significant amount of mileage on your trailer, this conclusion would be well founded.
From the Load Rite Owner's Manual that leaves the factory with every trailer:

1.6.7. Tire Balance and Wheel Alignment

To avoid vibration or shaking of the vehicle when a tire rotates, the tire must be properly balanced. This balance is achieved by positioning weights on the wheel to counterbalance heavy spots on the wheel-and-tire assembly.

Per the Two Year Coupler to Taillight Warranty that came with your and every Load Rite trailer, the following passages apply:

LOAD RITE will repair or replace, at its option, without charge, any parts found to be defective due to defects in material or manufacturing when the parts and/or trailer are returned to an Authorized *LOAD RITE* Dealer or authorized repair center as designated by *LOAD RITE*.

No transportation charges or related expenses (such as loss of time, towing charges, travel expenses) are covered by this warranty.

Load Rite chooses to repair your trailer. In order to effect such a solution, it is your responsibility to return the trailer to a Load Rite dealer or, in your case and due to geographic obstacles, a qualified repair facility within your locale. Once at a repair facility, Load Rite will work with that vendor to properly repair and replace parts as required.

I look forward to working with a local repair facility in restoring your trailer to designed service parameters.

Mike Sodano
Sales and Marketing Coordinator
Load Rite Trailers, Inc.
215-949-0500, x239
www.loadrite.com

From: [redacted]
Sent: Monday, January 18, 2010 1:25 PM
To: Mike Sodano
Cc: George Branca
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]
Importance: High

Mike,

As I suspected from the onset of this mechanical failure, there is either an engineering design defect or a material defect as the underlying problem. This boat only had 1/8 of a tank of fuel on board during the trip so was well under the load capacity of the trailer. Last Monday, January 11, 2010 I emailed both George Branca and Gary McPherson and attached a video of the right side I-Beam failure. George Branca is the only one who has sent a read receipt to me. Obviously, I am very disappointed that Load Rite has not acted to remedy this problem or at the very least contacted me after viewing the I-beam failure video I sent last week. I need a replacement trailer at this point. However Load Rite plans to replace this trailer, under warranty, I would like to know as soon as possible. I understand that Gary is out of the office this week. Someone at Load Rite needs to step up and make arrangements to get me a replacement trailer. Attached are more photos of the failed I beams. I am in St. George Island, Florida to fish and I find my trailer in disrepair and unsafe for long travel. I have purchased some u bolts to pull the I-Beam back together so I can get to the local boat ramp halfway safe.

I have been keeping a log of the events of this Load Rite trailer safety problem on line at the Hull Truth Website. It seems that many people are interested in the outcome of my boat trailer problem. I sincerely hope Load Rite steps up to the plate soon.

Sincerely,

[redacted] house (preferred)
[redacted] cell

From: Mike Sodano [mailto:MikeSodano@loadrite.com]
Sent: Wednesday, January 06, 2010 11:21 AM
To: [redacted]
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]

[redacted]
I haven't denied that you were involved in a dangerous situation brought about by your Load Rite trailer. I simply stated that the issue most likely stemmed from an assembly error and not a material issue. I am willing to send you any parts you need to bring your trailer back to original condition. Please send me a list of the parts you require.

Mike Sodano
Sales and Marketing Coordinator
Load Rite Trailers, Inc.
215-949-0500, x239
www.loadrite.com

From: [redacted]
Sent: Tuesday, January 05, 2010 9:32 PM
To: Mike Sodano
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]
Importance: High

Mike,

I understand your reluctance to get to the real issue of safety. However, I need to raise this issue to your company's safety manager at this point. A fender almost went through my friend's windshield and the incident could have been a tragedy with loss of life. Please put me in contact with your safety manager or company President.

Thank you for your concern,

[redacted]
Mechanical Engineer
[redacted]
Green Bay, WI [redacted]

From: Mike Sodano [mailto:MikeSodano@loadrite.com]
Sent: Tuesday, January 05, 2010 2:20 PM
To: [redacted]
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]

[redacted]
I appreciate that you have a far better understanding of engineering principles than do I. However, we do have an in-house engineering staff who design and approve all assemblies.

My role with Load Rite is as a warranty coordinator, among other things. Most all complaints, one way or another, roll across my screen. I can assure you that the occurrence you've experienced with your Load Rite trailer is not typical. If it were, I would probably agree with your conclusion. This is perhaps the third incident I have witnessed of fenders cracking in the last 12 months.
I have discussed your incident with our engineer. He agrees that there was most likely an installation issue. We do not have a heavier gauge fender available, nor a one-piece with center bracket. We had considered that design but still considered them to exhibit too much flex. Would you like me to send the fenders, hardware, and lights to the address below?

Mike Sodano
Sales and Marketing Coordinator
Load Rite Trailers, Inc.
215-949-0500, x239
www.loadrite.com

From: [redacted]
Sent: Tuesday, January 05, 2010 4:07 PM
To: Mike Sodano
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]
Importance: High

Mike,

Please do not offended but? Do you have a thicker gage fender you can offer me for an upgrade? This fender looks like 16 gage. What is the aluminum alloy that is being used, 6061-T6 or T4? I would rather have a single fender with a thicker gage aluminum with center support if one is available.

I looked at the fender supports and how they are attached to the aluminum I beam. The I beam at the tail end of trailer flexes (as the I beam is open at the bottom for the trailer axels to bolt into) when you put pressure on the rear fender support. The I beam does not flex as easily at the middle fender support and does not flex at the front fender support. The end of the I beam should have been designed with a clip bracket after the axle bolts were installed to close the I beam so the bottom I beam flange was one unit again, no matter how you bolt the fenders on per your instructions when you hit bumps in the road the different deflection of each of the supports will cause a twisting motion to the fenders.

I have been a practicing Mechanical Design Engineer for 30 years and can see a design flaw when it presents itself like this one. Extreme cold weather during the travel to Florida probably aggravated the design flaw. Seeing not many people put your product to this test is probably why your company has not seen this flaw. As I will continue this same trip for many years to come I would like to solve this problem now. I have two other boating friends that towed their boats down to Florida from Wisconsin with no problems. My old boat trailer an ezloader had no problems.

I want to flag again that one fender almost hit my traveling partners windshield. This raises red flags and safety concerns. This could have been a disastrous road accident. I am unwilling to repeat the same almost disastrous fender design as it stands.

The way I see it I have two options.

1. Do your recommendation and have this same problem and a possible tragic traffic accident.
2. Pay for an upgrade in the thickness of the metal to help the twisting design flaw in the fender supports caused by the open bottom flange I beam.

Please send me a picture of the led upgrade tail lite or the manufactures web site?

Please work with me to upgrade this trailer. Tie down worked with me on their flawed locking nuts on their surge brake on this same trailer that could have been a disaster on my first trip with this trailer.

Sincerely,

[redacted]

From: Mike Sodano [mailto:MikeSodano@loadrite.com]
Sent: Tuesday, January 05, 2010 10:30 AM
To: [redacted]
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]

The replacement fenders will be warranted within the 2 year trailer warranty from date of original purchase. If installed per my written instructions below there should be no further issue.
Regarding lights, I will replace the incandescents at no charge or offer you an upgrade to LED taillights for $40. Let me know how you'd like to proceed.

Mike Sodano
Sales and Marketing Coordinator
Load Rite Trailers, Inc.
215-949-0500, x239
www.loadrite.com

From: [redacted]
Sent: Monday, January 04, 2010 4:46 PM
To: Mike Sodano
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER238[redacted]

Mike,

So, you are saying this metal fatigue failure was caused by incorrect factory installation of the fenders? Are these going to warranted if they break again?
What are you going to supply for lights? Do you have sealed units with better bulb connections?
Yes, you can ship to the address I supplied in this email.

Sincerely,

[redacted] Florida

From: Mike Sodano [mailto:MikeSodano@loadrite.com]
Sent: Monday, January 04, 2010 3:15 PM
To: [redacted]
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]

[redacted]
I can ship you new fenders and hardware. The brackets are fine. Would you like them to go to the address below?
When reassembling, center the center bracket between the two tires and tighten to the frame. Leave the outer brackets loose on the frame. Assemble fenders to center and outer brackets loosely. Tighten fender bolts to center bracket. Move outer brackets until fenders line up alongside bracket naturally, with no stretch or pinch. Then fasten fender to outer bracket. Then fasten outer bracket to frame.
This procedure will eliminate any undue stress on fender in installed position.

Mike Sodano
Sales and Marketing Coordinator
Load Rite Trailers, Inc.
215-949-0500, x239
www.loadrite.com

From: [redacted]
Sent: Monday, January 04, 2010 3:53 PM
To: Mike Sodano
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased Vin # 5A4RTER2382[redacted]

Mike,
Attached are pictures of the fenders and supports and a picture of the Vin ID tag split into two pictures. Again, Just sending me the same type Aluminum fenders will not solve the problem. I believe, I need sturdier supports so the fenders don't flap in the wind like wings as you go over bumps in the road. You can see in the pictures that even cracks develop in the fenders at the top of the semi circle from flexing so much. Stronger supports plus thicker aluminum material or stainless steel diamond plate on the fenders are my suggestions.

The taillight supports also flex and the wires have broken off twice now as the wires have no extra length to absorb the flex of the brackets excessive vibration. I soldered them once already. I would need two new taillight assemblies with extra wire and a heat shrink water tight connections on one end. The copper strips are junk for the connection of the bulb, if you have a different taillight assy with a better bulb connection I would like that also.

Please tell me what you can do for me. I am willing to do the work myself as it is an eight hour drive over to your dealers place in Florida from my location.

My address here in Florida is:

[redacted]
St. George Island, FL [redacted]

From: Mike Sodano [mailto:MikeSodano@loadrite.com]
Sent: Monday, January 04, 2010 7:31 AM
To: [redacted]
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased

[redacted]

I am sorry to hear of your fender issue. No, this is not a common problem.
We have a dealer in Melbourne, FL, if you are near there. If not, I can send you all the parts and instructions directly.
Please respond with VIN and pictures (if available).

Mike Sodano
Sales and Marketing Coordinator
Load Rite Trailers, Inc.
215-949-0500, x239
www.loadrite.com

From: [redacted]
Sent: Sunday, January 03, 2010 11:47 PM
To: Mike Sodano
Subject: RE: 5S-AC20T4200102TB1 tandem boat trailer newly purchased

Mike,

I am hoping you can help me out? I just arrived in East Point, Florida with my boat and trailer. The trip here was most disappointing as far as the trailer performance. All three of the aluminum fenders broke off and I lost one of the three on the highway. I removed the last one before it too would have broken off. The person following me almost was hit by one of the fenders. The fenders were not supported correctly and the road vibration propagated cracks at the connecting bolts where the bolts connected the aluminum fenders to the galvanized supports.

The fenders vibration also broke the electrical wires to the tail lights making them inoperable.

How can I get this fixed under warranty? I am in East point Florida for the winter. Replacing the fenders and taillights without proper engineered supports is not the solution as this will happen again.

I can't be the only one experiencing this problem. Is there an engineering retrofit package for this problem?

[redacted]
Mechanical Engineer

Reference: Air & Space Magazine, March 01, 2001

Flutter" is the term used for synchronized vibration when it takes place in a flexible structure moving through a fluid medium--for instance, an airplane in flight. It occurs when two regular, rhythmic motions coincide in such a way that one feeds the other, drawing additional energy from the surrounding flow. In airplanes, there are countless combinations of vibrations that can join forces in this way.

An out-of-balance tire is one; it begins to vibrate at a certain speed as the car accelerates; at some higher speed the vibration subsides. What is happening is that when the tire's natural bounce frequency matches its rate of rotation, the wobble due to imbalance--which is always present--is amplified by the bouncing of the tire on the road.

Out-of-balance tires **seldom** lead to structural failure of the car because automobile suspensions are vastly overbuilt for the loads they normally encounter.

Flutter is all about stiffness, not strength; even the strongest structure may fail if it flutters. In general, structures that are light and stiff vibrate more rapidly; they are said to have higher natural frequencies.

Reference: Dexter torsion axles

Excessive frame flexure can affect ride if the natural frequency of the vehicle's structure matches the frequency of the suspension. Once the flex of the frame is in phase with the suspension's vertical movement, the dynamic load input to the suspension will cause it to deflect more than it would under static load conditions. This greater loading of the suspension results in greater rebound which causes greater frame flexing. Now the larger degree of frame flexure is imposed on the suspension which causes an even greater vertical travel, and so on. If the condition exists, damage to the vehicle's structure can occur. Either the structure should be stiffened or the suspension characteristics should be altered to prevent this "in phase" behavior.

Higher Stresses
Wide-spread Torflex axles will be subjected to higher stresses at the bracket/tube interfaces as a result of frame racking. Racking occurs when the vehicle travels over uneven surfaces and the loads imposed at each wheel are substantially different. If the torsional stiffness of the vehicle structure is relatively low, the areas where the cross members are joined to the main frame rails and the axle bracket/tube welds must withstand the twisting that occurs in these critical regions.
Excessive flexing may result in fatigue failures.

TIE DOWN ENGINEERING:

Congratulations on the purchase of your new trailer. This trailer manufacturer has chosen the Tie Down Engineering Eliminator Torsion Axle for your trailer's suspension requirements. There are several important facts in using your new trailer with the

Eliminator Torsion Axle. Four cords inside the axle housing handle suspension travel and shock absorbsion. As the wheel moves up or down, the rubber cords compress, offering a progressive rate of resistance. Benefits to this system are: Independent suspension, each wheel acts independently for a smoother ride.
Trailer rigidity, the axle is bolted to the trailer frame. This acts as an additional cross member which stiffens the frame, reducing flex in cross winds and rough roads.
Progressive “spring” rate, small bumps are handled by a soft initial rate, while larger bumps use a stiffer rate. This makes for a smoother ride over all types of roads.

RE [redacted]

Load-Rite trailer model# 5S-AC20T4200102TB1

Vin# 5A4RTER2382 [redacted]

Dear Mr. Anschutz,

I was asked to provide a professional assessment of the damage to the Load Rite trailer referenced above. The trailer incurred damage during a trip from Green Bay, Wisconsin to St. George Island, Florida in January, 2010.

I conducted an inspection of the boat and trailer on January 20, 2010 at my facility located at 131 Highway 98, Eastpoint, Florida. The inspection was requested by Martin Weires and yourself, with Erie Insurance Company.

During the inspection, I observed the following:

1. All four fenders of the trailer were not attached to the trailer. On three of the four fender support brackets there was fender material left on the brackets behind the attachment bolts, indicating the fender had actually tore away from the bracket. [redacted] **stated that he removed the fourth fender before it tore away.**

2. [redacted] **produced the fenders for inspection. The fenders were missing large pieces of metal where they tore away from the attachment brackets. In addition, the fenders had large cracks in them.**

3. The I-beam frame of the trailer on the driver's side is showing cracks in the beam at the forward cross-member brace. There are also cracks at the rear end of the I-beam in the side of the beam at the lower flange.

4. On the passenger's side of the trailer at the rear end of the I-beam the lower flange is totally broken away from the vertical member of the beam itself, extending for a distance of about 1 foot up the length of the beam.

5. The taillight wire connections are broken at their connection to the taillight socket.

I requested that [redacted] **have the trailer weighed to verify that it fell within specification of the gross vehicle weight on the label on the trailer. The boat and trailer were weighed at the Franklin County Landfill & Recycling Center scale. The combined boat and trailer weight was 4100 pounds, as currently equipped. To adjust for tongue weight and a full tank of gas, the total towing weight is estimated at 4670 pounds. The trailer maximum gross vehicle weight is 5320 pounds.**

Because the manufacturer has claimed that the damage to the trailer was most likely caused by a tire or tires being out of balance, [redacted] **also had the balance of the four trailer tires checked. The left front tire was found to be 8.75 ounces out of balance, which is considered excessive. The other three tires were out of balance as follows: left rear, 3.5 ounces; right front, 3.25 ounces; right rear, 5.0 ounces.**

My conclusions are as follows:

Because the tires were out of balance, it is possible that vibration from the tires was transmitted to the frame and contributed to the fenders tearing away. The tire that was most severely out of balance was most likely defective when it was installed.

I have never witnessed, nor have the manufacturer's I consulted, I-beam failures caused by out-of-balance tires. I noted that there was no crack in the I-beam adjacent to the tire with the worst balance. The cracks in the I-beams on both sides of the trailer were closest to the two rear tires, which had a lesser balance problem.

I cannot state with any certainty what caused the cracking in the I-beams of the trailer. The I-beam construction of the Load Rite trailer is a unique design (patent pending) that is not used by other boat trailer manufacturers. A metallurgical study of the I-beam would have to be performed to determine if the alloy meets the desired specifications or whether impurities in the metal may have caused the I-beam to fail prematurely during cold weather. An analysis such as this would require that a section of the I-beam be cut from the trailer and sent to a metallurgical laboratory for testing and analysis.

[redacted] has produced an e-mail from the manufacturer indicating that they have elected to repair the trailer under their warranty. However, it is my belief that without further analysis to determine the cause of the I-beam failure, [redacted] could be placed at risk of the incident repeating itself, possibly causing severe damage to the boat, trailer or towing vehicle, and more importantly, severe injury or death to himself or others.

It is my recommendation that this trailer be totaled and replaced with a new trailer.

Sincerely,

Marc Grove

Marc Grove

President

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Marc Grove

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