

Airstream Inc.

Terry Coleman - Director of Codes and Safety
419 W. Pike St., P.O. Box 629, Jackson Center, OH 45334
Phone (937) 596-6111 Ext. 7231
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October 29, 2004

Office of Defects Investigation
National Highway Traffic and Safety Administration
400 7th Street, SW
Washington, DC 20590

04V-506

Dear Sir,

Description of Problem

Airstream Inc., 419 W. Pike St., Jackson Center, OH 45334, a manufacturer of travel trailers and motor homes has determined that a problem relating to motor vehicle safety exists in certain 2004 model year Airstream Inc. Classic, Safari, and International Travel Trailers using Henschen brand axles, built between April 2003 and April 2004. This population includes 929 units. The problem involves wheel-bearing failure with the possible unexpected loss of trailer wheels as they are traveling down the road.

Units Affected

A total of 929 Airstream Inc. travel trailers are involved in the recall action. The serial number range of the units involved is from 515557 to 516568. Of these 1011 units, 82 were built with Dexter brand axles that are not experiencing this problem. This brings the total population down to 929 units containing the Henschen axle. All units in the population have the potential for the wheel bearing failure and wheel loss. Our investigation does seem to suggest that most failures have occurred during delivery, especially deliveries to the Southwest or West Coast, or within the first few thousand miles after leaving the factory.

Defect Determination

During the course of routine customer letter and warranty report reviews we were first alerted to this situation. We began to collect data to determine if the problem was an isolated incident(s) or the manifestation of a larger problem. We alerted our supplier of axles and wheels, QDS Henschen Industrial, 522 N. Main Street, Jackson Center, Ohio 45334 of the potential problem. Our Quality Assurance and Engineering Departments began a dialog with Henschen to determine if any process had changed in their axle production that could have contributed to this type of problem. Henschen's internal investigation, in conjunction with Koyo Bearing Co. initially seemed to point to the castle nut on the hub assembly possibly being too tight, causing a potential preload to the outer wheel bearing. Excessive preload on the outer wheel bearing could lead to heat build-up that could burn up the grease in the bearing causing failure. Henschen began an internal process where axle assemblers audited each other's castle nut installation for proper tightness.

After reports of several additional failures, Airstream, in early October 2004, sent an Airstream factory representative and the Quality Assurance Manager of Henschen to an Airstream Inc. dealer on the West Coast who had a large number of stock units on his lot that fell within the serial number range of the units with reported failures. Checks at the dealership revealed 5 units with castle nut tightness 1/12th castellation beyond nominal but not believed tight enough to cause a problem. One unit was found to have a loose outer race in one of the hubs. The unit with the loose outer race was repaired. The hubs were reassembled and remounted and castle nuts re-tightened to the Henschen specification.

A failure analysis was conducted by Airstream Inc. to determine the root cause of the outer bearing failures and wheel separations. The analysis lead Airstream Inc. to the conclusion that the root cause of the failures was not pre-load on the outer bearing or bearing race tightness. All indications pointed to an inadequate amount of grease in the bearings and hub assembly as received from QDS Henschen Industrial. This reduced amount of grease could be traced to a specific date. It was also determined that the Mobil Corp. grease used during this time frame broke down into a liquid under normal operating temperatures. Airstream Inc. believes that this liquid migrated away from the outer wheel bearing causing increasingly ineffective lubrication during the first few thousand miles of use. We believe it is highly probable that this lack of effective lubrication then lead to excessive heat build-up and eventual outer bearing failure. The results of our data collection and subsequent Engineering and Quality Assurance analyses lead Airstream Inc. to determine in mid-October, 2004 that the defects were sufficiently safety related that a NHTSA recall was required. As of the date of this letter we are aware of 16 cases of wheel bearing failure, 13 of which caused wheel separation.

Airstream Inc. continued and continues to meet with Henschen about possible other causes of the bearing failure and wheel separations. Henschen conducted two exercises to attempt to pinpoint the causes of the bearing failures. During the weekend of October 16-17, Henschen inspected their entire inventory of 187 Reliable Inc. hubs used for Airstream Inc. axles. In every case, the inner and outer races of the hubs were seated properly. Henschen also conducted a test where a hub assembly and wheel with a 13.5" loaded wheel radius was put into a pre-load condition and then turned at 817 rpms to simulate a 65 mph highway speed. The test was run for 17.17 hours, giving the equivalent of 1115 miles of highway use. No damage to the bearings or races was noted. Henschen is also sending out a sample of Mobil grease to an independent testing agency for analysis. While not conclusive, these exercises reinforce Airstream Inc.'s belief that the grease theory is the likely root cause of the failures.

Proposed Remedy

Airstream Inc. proposes the following remedy. At no cost to our customers, we will ask them to bring their unit to an Airstream Inc. Dealer or authorized repair facility. The repair facility will be authorized to perform the following:

1. Remove each affected trailer wheel.
2. Remove grease seal, remove and clean the bearings and clean hub assembly of all grease, and inspect races.
3. If found, replace damaged parts.
4. Re-pack wheel bearings with high temperature, lithium wheel bearing grease i.e. Valvoline Crimson or equivalent.
5. Reinstall inner wheel bearing, and new grease seal into the hub assembly.

6. Reinstall hub, outer wheel bearing, washer, castle nut and cotter pin.

It is estimated that these repairs will take .5 hours per wheel to complete. Dealers will be required to advise customers to check their lug nut tightness at 50, 100, and 200 miles per Airstream Service Bulletin 137 recommendations (see attached bulletin).

Customer Notification

The enclosed owner notification letter, postcard, and envelope are being submitted to NHTSA for your pre-view. Airstream Inc. intends to mail the owner notification letters and post cards as soon as NHTSA approves its content.

Dealer Notification

I have attached our proposed Dealer Service Bulletin outlining the step-by-step repairs for your preview. Airstream Inc. will provide parts and technical support to our customers and dealers.

Campaign Number

Airstream Inc. does not have a campaign number for this recall. Airstream Inc. will use the identification number assigned by the NHTSA. We ask you to assign this number as soon as possible

I would appreciate your providing me with a preview determination of the enclosed documents at your earliest convenience. Please contact the undersigned at (937) 596-6111 extension 7231 after you have had an opportunity to review the documents. In my absence, M. Douglas Burch, extension 7239, is authorized to communicate with your agency. I trust you will find the documents comply with the NHTSA regulations and will approve the documents for form and content.

Thank you for your prompt attention to this matter.

Regards,



Terry Coleman
Director of Codes and Safety

Attachments

cc: Mr. John Garmhausen
Mr. Daniel Bensman
Mr. Dicky Riegel
Mr. Robert Wheeler
Mr. Walter Bennett



419 West Pike Street., P.O. Box 629 Jackson Center, OH 45334-0629
Phone: (937) 596-6111 Fax: (937) 596-8140

SAFETY RECALL NOTICE

Airstream Inc. Voluntary Recall Campaign: (Campaign No. 04V-506)

Vehicles Affected: Certain 2004 Airstream Inc. Travel Trailers

Dear Airstream Customer,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Airstream Inc. has decided that a defect that relates to motor vehicle safety exists in Airstream Inc. Classic, International and Safari travel trailers with Henschen brand axles manufactured in the 2004 model year. Airstream Inc. production numbers affected range from 515557 through 516568, (not inclusive). Our records indicate your travel trailer is affected by this recall.

Safety Defect: The outer wheel bearing in the hub of your axle may fail, leading to the unexpected separation of the wheel from the axle. The probable cause for this failure is two-fold. First, there may be an inadequate amount of grease in the hub assembly of the Henschen axle. Second, the grease in the hub may break down under normal operating conditions into a liquid that inadequately lubricates the outer bearing. Inadequate lubrication of the outer bearing can begin a chain of events that could lead to wheel separation.

Potential Risk: The above defect could lead to the sudden, unexpected separation of one or more wheels from your travel trailer. The loss of a wheel could cause your trailer to handle erratically or go out of control causing you to crash, resulting in serious injury or death. A lost wheel could also strike an oncoming or following vehicle causing it to crash, resulting in serious injury or death to those involved. Finally, a lost wheel could strike a passerby causing serious injury or death. To date, Airstream Inc. does not have any knowledge of injuries having occurred from wheels separating from Airstream travel trailers.

Precautions: Until your travel trailer is inspected and repaired, Airstream Inc. suggests you limit travel as much as possible. Before traveling, examine your wheels for signs of misalignment (i.e., wheel(s) oriented at an angle different from the other wheels, or signs of discoloration or burning on the center hub area). At stops during travel, look at wheel orientation and for signs of wheel(s) overheating (i.e., the wheel hub being too hot to touch). If any of these signs appear while traveling and you have a tandem or tri-axle trailer, remove the affected wheel, stow it safely, and proceed at low speed to the nearest Airstream dealer. If an Airstream dealer is not close by, proceed to the nearest tire and wheel service facility. If you have a single axle trailer and one of the above warning signs appear, park your trailer and call Airstream Customer Service. They will assist you in locating the nearest repair facility.

Proposed Remedy: Airstream Inc., at no charge to you (parts and labor), will repair your unit. Airstream Inc. will pay for the removal of your wheels, and the inspection of your hubs, inner and outer bearings, races, and grease seals. If any defects are found, Airstream Inc. will replace the defective part(s). Airstream Inc. will also repack the wheel bearings with high temperature

grease and reinstall the hubs and wheels. It is estimated that the inspections and repairs will take approximately one half hour for each wheel of your travel trailer. In an emergency situation, if you are not near an Airstream Dealer, contact Airstream Customer Service for authorization to have the closest, qualified non-Airstream service facility inspect and repair your unit. It is expected that most Airstream Inc. Dealers Service Facilities will be able to make the inspections and necessary repairs almost immediately. Please call your dealer for an appointment.

Contacting the Repair Center Nearest You: Contact Airstream Inc. at **937-566-6111 Ext. 7418 or 7400** to find out the Airstream Dealer nearest you.

Assistance: If after a reasonable period of time, you are unable to obtain satisfactory service to repair your vehicle, please contact Airstream Inc.'s Automated Toll Free Support Line at 1-877-596-6505. Our current response time is one business day. You may also submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh St. S.W., Washington, D.C. 29590, or call the toll free Auto Safety Hotline at 1-888-327-4236.

You may be eligible to receive reimbursement for the cost of obtaining a pre-notification remedy of a problem associated with this recall. For more information contact Champion Bus at 1-800-788-1976.

Federal regulations require any lessor receiving this letter to forward it to the lessee within 10 days.

A stamped, self-addressed post card is enclosed for your convenience. When inspection and repairs are made to your unit, please fill out the card and return it to Airstream Inc. If you have sold your unit, please fill out the name and address (if known) of the party to whom you sold the unit. Thank you for your cooperation.

We regret any inconvenience this recall may cause but hope you share Airstream Inc.'s concern for safety and satisfaction with our vehicles.



Terry Coleman
Director of Codes and Safety

October 29, 2004

AIRSTREAM

Product Line: 2004, 2005 Safari, Classic,
International Trailers

SERVICE BULLETIN

Subject: Wheel Bearing Failure

Date: 10/22/2004

Attn.: General Mgr., Service Mgr.

Bulletin Number: 137

Due to reports of wheel separation and unintentional wheel loosening on certain 2004 and 2005 Airstream Classic, Safari, and International Travel Trailers Airstream Inc. has initiated a voluntary safety recall, (Add recall number here) approved by the National Highway and Safety Administration.

Failure to perform the procedure outlined in this bulletin may result in a wheel separating from a travel trailer possibly causing property damage, personal injury and/or death.

Trailers with Airstream serial numbers ending between and including 515557 through 516568 are included in this recall. The serial number of a trailer is stamped on the Manufacturing Tag located on the roadside of the trailer. It is a 17 digit number beginning with the alpha/numeric characters 1ST. Certain Airstream trailers are exempt from this recall due to the axles being manufactured by a supplier other than QDS Henschen Inc. A list of the exempted unit's last six serial numbers is included with this bulletin.

Symptom: Brown bearing grease drains to the bottom of the bearing cavity allowing the outer wheel bearing to run free of lubrication. Outer bearing can fail prematurely causing the wheel/hub assembly to loosen and possibly separate from the trailer.

Inspection/Repair Procedure

1. Remove wheel and hub dust cap on one side of each axle.
2. Inspect the bearing grease. If red bearing grease is found, the hub/drums on that axle will not need repacked. If brown bearing grease is found, proceed to step 3. If for any reason a dealership cannot discern the color of the grease in a hub/drum proceed to step 3.
3. Clean and inspect the hub/drum, wheel bearings, races, and spindle for signs of unusual wear and/or failure.
4. Check race seating by tapping on the race with a race driver. Report any loose races on the warranty claim when submitted to Airstream.
5. Replace any parts showing unusual wear.
6. Repack bearings with Valvoline Crimson™ Grease or its equivalent.
7. Reinstall hub/drums and wheels.
8. Torque wheel lug nuts to 95 ft. lbs on Classic and International Trailers and 110 ft. lbs. on Safari trailers
9. Please inform customers to check the torque of each wheel at 50, 100 and 200 miles to these specifications.

Service Bulletin 137 continued

The flat rate for the Wheel Bearing Inspection/Repacking procedure is .5 hr. per wheel. Please use normal warranty procedures to apply for reimbursement.

Airstream Inc will replace any parts used on performing Service Bulletin 137 at no charge to your dealership. Please inform the Airstream Customer Service Department of the parts used, the Airstream serial number they were used on and we will send replacement parts to your dealership.

Please contact our Customer Service Department if you have any questions on this bulletin.

Airstream Customer Service

Trailers with serial numbers ending in the following numbers are exempt from the recall:

515567	516057	516263
515614	516058	516267
515620	516060	516290
515727	516070	516295
515736	516074	516314
515744	516095	516315
515768	516102	516340
515781	516119	516345
515789	516120	516365
515797	516130	516371
515825	516131	516395
515830	516139	516403
515852	516145	516426
515871	516150	516436
515875	516160	516444
515877	516172	516446
515905	516173	516448
515915	516174	516451
515922	516180	516457
515933	516183	516472
515938	516185	516476
515953	516201	516521
515968	516206	516560
515981	516209	516566
515992	516216	
515996	516218	
516007	516224	
516017	516238	
516039	516239	

Airstream Inc
P.O. Box 629
Jackson Center, OH 45334

Attention: Deb Adkins
Airstream Inc.
P.O. Box 629
Jackson Center, OH 45334

Wheel Bearing Recall

Serial Number _____

My Airstream Inc. trailer wheel bearing recall inspection and repair was completed on Date: _____

At Repair Facility: _____

City: _____ State: _____ Zip: _____

Your Name (Please Print) _____

Street _____ City _____

State _____ Zip _____

If your permanent address is different from the above address, please fill it in below:

Street _____ City _____

State _____ Zip _____

Please help us update our records by filling out the information below. Your help would be greatly appreciated. Do you still own this trailer? Yes _____ No _____ If "No" please

enter the name and address of the person or dealership that now owns this vehicle.

This vehicle was scrapped _____ stolen _____ exported _____

Name of new owner: _____

Street _____ City _____

State _____ Zip _____

Thank you for your cooperation Airstream Inc

AIRSTREAM

419 West Pike Street • P.O. Box 629
Jackson Center, OH 453340629

«DEALERNAME_____»

«ADDR1_____»

«ADDR2_____»

«CITY_____» «STATE_____» «ZIPCOD_____»

IMPORTANT!

SAFETY RECALL NOTICE

AIRSTREAM

419 West Pike Street • P.O. Box 629
Jackson Center, OH 453340629

«FIRSTNAME_____» «INITIAL_____» «LASTNAME_____»
«CONAME_____»
«LINE1_____»
«LINE2_____»
«CITY_____» «STATE_____» «ZIPCD_____»

IMPORTANT!
SAFETY RECALL NOTICE