

Safety Defect and Noncompliance Report Guide for Vehicles

PART 573 Defect and Noncompliance Report¹05 V-414
(14 Pages)

On August 25, 2005, ~~199xxx~~ ^{Pace American of Indiana, Inc. and Pace American of Georgia, Inc.} [MFR] decided that (a defect which relates to motor vehicle safety) ~~(a noncompliance with Federal Motor Vehicle Safety Standard No. xxxxxx)~~ ^{exists} in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: August 30, 2005

Furnish the manufacturer's identification code for this recall (if applicable): _____

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

Pace American of Indiana, Inc.

Pace American of Georgia, Inc.

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

James V. Woodsmall, Secretary

Warrick & Boyn, LLP, Suite 400, 121 W. Franklin Street, Elkhart, IN 46516

Telephone Number: (574) 294-7491 Fax No.: (574) 294-7284

Name and Title of Person who prepared this report.

James V. Woodsmall, Secretary

Pace American of Indiana, Inc.

Signed: James V. Woodsmall, Secretary

Pace American of Georgia, Inc.

Signed: James V. Woodsmall, Secretary

¹Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions, please consult the complete Part 573 or contact Mr. Jon White at (202) 366-5227 or by FAX at (202) 366-7882.

DEFECT INVESTIGATION

2005-08-30 A 10:00

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105-215

I. Identify the Vehicle Models Involved in the Recall

2. Identify the Vehicles Involved in the Recall, for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide:

Pace

Make(s): American Model Years Involved: 2005 Model(s): unsure, doing a search

Production Dates: Beginning: * Ending: *

VIN Range: Beginning: * Ending: * * - not known at this time.

Vehicle Type: * Bodystyle: Cargo trailer

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

The back side of the rim is stamped JCAJG or JCAHW.

Make(s): _____ Model Years Involved: _____ Model(s): _____

Production Dates: Beginning: _____ Ending: _____

VIN Range: Beginning: _____ Ending: _____

Vehicle Type: _____ Bodystyle: _____

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

Make(s): _____ Model Years Involved: _____ Model(s): _____

Production Dates: Beginning: _____ Ending: _____

VIN Range: Beginning: _____ Ending: _____

Vehicle Type: _____ Bodystyle: _____

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.

II. Identify the Recall Population

3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.

<u>Model</u>	<u>Year</u>	<u>Number of Vehicles Potentially Involved</u>
Pace American of Indiana, Inc.	2005	Seven (7)
Pace American of Georgia, Inc.	2005	Fourteen (14)

Total Number Potentially Affected by the Recall: Twenty-one (21)

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: Unknown

Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:

The wheel supplier, Tredit Tire & Wheel Co., 57941 Charlotte Avenue, Elkhart, IN 46517 notified us the twenty wheels were sold to us in April, 2005 and one wheel on June 23, 2005. The recalled wheels were used in production during approximately thirty days after receipt, except the wheel received in June was shipped to a consumer.

III. Describe the Defect or Noncompliance

5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.

See attached report of Quality Associates - Metallurgical Services dated

August 6, 2005.

Describe the cause(s) of the defect or noncompliance condition.

See attached report referred to above.

Describe the consequence(s) of the defect or noncompliance condition.

Wheel failure could result in loss of control of the cargo trailer causing an accident.

Identify any warning which can (a) precede or (b) occur.

May not be any warnings.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.

Tredit Tire & Wheel Co.

52941 Charlotte Avenue

Elkhart, IN 46517

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

Terry O'Rourke, Manager

IV. Provide the Chronology in Determining the Defect/Noncompliance

If the recall is for a defect, complete item 6, otherwise item 7.

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims. No accidents, injuries, fatalities or warranty claims were incurred. On August 24, 2005, we received the attached report of Quality Associates - Metallurgical Services

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

The remedy has not been finalized yet, but will include replacement of the wheels from the defective batch at no cost to the owner and reimbursement to those owners or purchasers who incurred costs to replace the defective wheels.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

Defective weld as described in the attached report.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

N/A. Wheel was not produced by Manufacturer.

VI. Identify the Recall Schedule

Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.

Haven't located information on the effected trailers to develop a schedule yet.

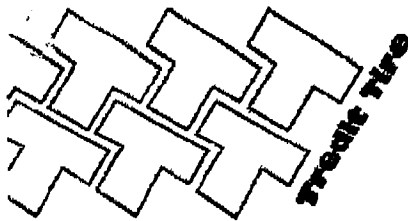
VII. Furnish Recall Communications

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. *A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.*

Note that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.

Will submit as per regulations.

The Privacy Act of 1974 - Public Law 93-579, As Amended: This information is requested pursuant to the authority vested in the National Highway Traffic Safety Act and subsequent amendments. You are under no obligation to respond to this questionnaire. Your response maybe used to assist the NHTSA in determining whether a manufacturer should take appropriate action to correct a safety defect. If the NHTSA proceeds with administration enforcement or litigation against a manufacturer, your response, or statistical summary thereof, may be used in support of the agency's action.



8-24-05
Kevin W. Bane

Tredit Tire & Wheel Company
57941 Charlotte Avenue
Elkhart, Indiana 46517

BILL SWANSON
PACE AMERICAN INC.
11550 HARTER DRIVE
MIDDLEBURY IN

46340

August 18, 2005

Re: 16" Chromium Plated Welded Wheel Assemblies

Dear: BILL SWANSON

Recently, we received for replacement certain broken 16" chromium plated welded wheel assemblies that had been, according to representations made to us, used in 5th wheel applications. Due to a concern regarding the breakage, we retained Quality Associates - Metallurgical Services ("QA") to evaluate certain wheel assemblies. The results of those evaluations are attached.

As you will discern from these reports, the sample pool analyzed by QA was limited. Further, QA did not complete any load, weight bearing or application testing. The analysis was purely metallurgical. Tredit requests that you test the applications for which the wheels are used to determine if the 16" chromium plated welded wheels are suitable for those purposes.

Please note that QA is an independent company that is not affiliated with Tredit. The results are the opinions of QA only. Tredit does not have independent knowledge of and does not concede or insure the accuracy of the results.

Very truly yours,

Terrance J. O'Rourke

Terry O'Rourke

Tredit Tire

Enclosures

RECEIVED
MVS-215
OFFICE OF
DEFECTS INVESTIGATION

2005 SEP -6 A 10:00

Quality Associates – Metallurgical Services

1795 Foundation Drive – Niles, MI 49120

Phone: 260-695-2623 FAX 260-695-4423

Page 1 of 11

QA Lab Report No. 27392

TO: Timothy Ball
Tredit Tire & Wheel Co. Inc.
57941 Charlotte Avenue
Elkhart, IN 46517

6 August 2005

SUBJECT: Wheel Assemblies
Part Number: Not Provided
Specification: Chromium Plated – Welded Assemblies
Manufacturer: Not Provided

OBJECT: Determine the cause of breakage.

RECEIVED: Three (3) broken wheels and four (4) new wheels were submitted for analysis.

CONCLUSION: Analysis of the broken wheels revealed:

Breakage followed the weld interface along the rim surface do to poor weld penetration and poor weld fusion.

The level of press fit between the disc and rim on two of the broken pieces was loose 0.01 mm (0.0004 inches) and tight 0.11 mm (0.0043 inches). These results indicate inadequate interference fit for both pieces, but the results are somewhat questionable given the distortion that occurred during the course of breakage.

Although unrelated to the breakage, the disc was made from coarse grained 1015 carbon steel that did not contain nitrogen fixing elements. It is recommended that an aluminum grain refined steel, 0.02 weight percent minimum aluminum, be used in this application.

Analysis of the new wheels revealed:

The welds exhibited inadequate root penetration and poor sidewall fusion to the rim.

The amount of press interference between the rim and disc was 0.13 to 0.17 mm (0.0051 to 0.0067 inches). This is lower than the expected 1 to 1.25 mm (0.040 to 0.050 inches) of interference.

The discs were made from coarse grained steel that did not contain nitrogen fixing elements.

Breakage of the three wheels is attributed to poor weld quality and what is believed to be insufficient press interference between the rim and disc.

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Lab File 27392

TEST DATA: *A) Broken Wheel No. 1 - 8 Hole Mounting*Visual Examination

Stamp markings on the rim surface included "DOT T 16 x 6K 12 04 MAX 3750 LBS JG/JCA CHINA".

All five welds broke (Figure 1). Fractures followed the weld interface to the rim in all cases (Figure 2). Fracture surfaces were smooth and relatively featureless, which suggests a lack of weld fusion and penetration (Figure 3). Fretting damage along the interface between the rim and disc reveals that there was relative movement between the two pieces (Figure 4).

The welds exhibited no evidence of undercuts, overlaps or other objectionable profile features.

Metallographic Examination per ASTM Methods

Two of the five welds were sectioned at the mid length for metallographic examination (Figure 5). Overall weld quality was unacceptable as the level of sidewall fusion between the weld and the rim surface was poor.

General microstructures of the rim and disc revealed both pieces were made from low carbon steels similar to 1008-1015. Microstructure of the weld was good. Overall material cleanliness was good.

Chemical Analysis per ASTM E415

Results of analysis (Table I) revealed the disc was made from a 1015 type carbon steel; the rim was made from aluminum grain refined 1006/1008 carbon steel. The steel used to manufacture the disc is considered to be poor due to the lack of sufficient aluminum for grain refinement, 0.02 weight percent minimum, and the possibility of strain aging in use because of insufficient quantities of nitrogen fixing elements; aluminum, vanadium or columbium.

Table I. Composition, Weight Percent				
Element	Disc	1015	Rim	1008
Carbon	0.15	0.13-0.18	0.04	0.10 Max.
Manganese	0.41	0.30-0.60	0.19	0.50 Max.
Phosphorus	0.019	0.030 Max.	0.010	0.030 Max.
Sulfur	0.017	0.050 Max.	0.004	0.050 Max.
Silicon	0.17		0.030	
Nickel	0.008		0.016	
Chromium	0.003		0.014	
Molybdenum	0.002		0.006	
Copper	0.014		0.06	
Aluminum	0.011		0.031	
Vanadium	0.003		0.003	
Columbium	<0.002		<0.002	

TEST DATA: (Continued)***B) Broken Wheels Nos. 2 and 3 – 6 Hole Mounting*****Visual Examination**

No. 2 – Stamp markings on the rim surface included “DOT T 16 x 6K 02 05 MAX 3140 LBS JG/JCA CHINA”.

Three of the five welds broke (Figure 6). Fractures followed the weld interface to the rim (Figure 7). Smooth fracture features suggest that the level of weld fusion and penetration to the rim was poor. No fretting damage was observed at the disc-to-rim contact surface. Absence of wear indicates that breakage occurred before any significant amount of usage.

The welds exhibited no evidence of undercuts, overlaps or other objectionable profile features.

No. 3 – Stamp markings on the rim surface included “DOT T 16 x 6K 02 05 MAX 3140 LBS JG/JCA CHINA”.

All five welds broke and the disc separated from the rim (Figure 8). Fractures followed the weld interface to the rim. Smooth featureless fractures suggest that the level of weld fusion and penetration to the rim was poor (Figures 9 and 10). No fretting damage was found on the disc-to-rim contact surface. Absence of wear suggests that breakage occurred before any significant amount of usage.

The welds exhibited no evidence of undercuts, overlaps or other objectionable profile features.

Dimensional Analysis

Although the discs in these two wheels were slightly bent, they were selected for dimensional analysis. Results (Table II) revealed that the level of interference fit between the disc and rim was minimal. Given the level of distortion to the disc during the course of breakage, this data may not be reliable.

Table II. Dimensional Analysis		
Wheel	No. 2	No. 3
Disc OD, mm	343.60	344.18
Rim ID, mm	343.61	344.07
Interference, mm (Inches)	-0.01 (-.0004)	0.11 (0.0043)

C) New Wheel No. 4 – 8 Hole Mounting**Visual Examination**

Stamp markings on the rim surface included “DOT T 16 x 6K 01 05 MAX 3750 LBS JG/JCA CHINA”.

TEST DATA: (Continued)

No undercuts, overlaps or other objectionable profile features were observed in this wheel product.

Metallographic Examination per ASTM Methods

Three of the five weld segments were sectioned at the mid length for metallographic examination (Figure 11). Overall weld quality was unacceptable with poor root penetration (Figure 12). Weld penetration stopped short of the root, which resulted in incomplete fusion to the rim. Approximately half of the weld leg to the rim exhibited undissolved chromium plating, which will provide an easy path for breakage under side loading.

General microstructures of the rim and disc revealed both pieces were made from low carbon steels similar to 1008-1010. Overall material cleanliness was good.

Chemical Analysis per ASTM E415

Results of analysis (Table III) revealed the disc was made from coarse grained 1010 carbon steel; the rim was made from aluminum grain refined 1006/1008 carbon steel. The steel used in the manufacture of this disc is not recommended due to the lack of grain refinement and the absence of nitrogen fixing elements such as aluminum, vanadium or columbium to prevent strain aging.

Table III. Composition, Weight Percent				
Element	Disc	1010	Rim	1008
Carbon	0.13	0.08-0.13	0.05	0.10 Max.
Manganese	0.41	0.30-0.60	0.22	0.50 Max.
Phosphorus	0.024	0.030 Max.	0.014	0.030 Max.
Sulfur	0.024	0.050 Max.	0.002	0.050 Max.
Silicon	0.19		0.05	
Nickel	0.008		0.019	
Chromium	<0.005		0.021	
Molybdenum	0.003		0.008	
Copper	0.015		0.07	
Aluminum	0.003		0.027	
Vanadium	0.003		0.004	
Columbium	<0.002		<0.002	

D) New Wheels Nos. 5 to 7 - 8 Hole Mounting**Visual Examination**

No. 5 - Stamp markings on the rim surface included "DOT T 16 x 6K 01 05 MAX 3750 LBS JG/JCA CHINA".

TEST DATA: (Continued)

No. 6 - Stamp markings on the rim surface included "DOT T 16 x 6K 01 05
MAX 3750 LBS JG/JCA CHINA".

No. 7 - Stamp markings on the rim surface included "DOT T 16 x 6K 12 04
MAX 3750 LBS JG/JCA CHINA".

The welds exhibited no evidence of undercuts, overlaps or other objectionable profile features. Fit-up at the end face of the disc flange and rim surface was not visible due to the overlapping welds.

Dimensional Analysis

The welds were machined off using a lathe and bolts were tightened against the larger diameter holes in the disc to pull the disc through the rim. Although force was not measured, the effort required to pull the discs through the rim was not high for either sample.

The inner diameter of the rim was measured near the base of the weld and the outer diameter of the disc near the weld was also measured using a Zeiss coordinate measuring machine. Results (Table IV) revealed minimal press interference in the assembly. This low level of interference limits the load carrying capacity of the wheel.

Table IV. Dimensional Analysis			
Wheel	No. 5	No. 6	No. 7
Disc OD, mm	344.21	344.27	344.30
Rim ID, mm	344.07	344.10	344.17
Interference, mm (in)	0.14 (0.0055)	0.17 (0.0067)	0.13 (0.0051)



David A. Guisbert, P.E.
QA Metallurgical Services
1795 Foundation Drive
Niles, MI 49120
Phone: (269) 695-2623
FAX: (269) 695-4423

ATTACHMENTS: Figures 1 to 12

DISTRIBUTION: T. Ball
Lab File 27392



Admitted in Indiana
and Michigan

Thomas E. Warrick*
Gary D. Boyn
James V. Woodsmall
Cynthia S. Gillard
Randall G. Hesser
Timothy S. Shelly
William D. Haut
Dean E. Leazenby
William L. Law, III**

*Admitted in Illinois,
not admitted in Michigan

**Admitted in Indiana,
not admitted in Michigan

RECEIVED
HVS-215

2005 SEP 14 A 9:59

OFFICE OF
DEFECTS INVESTIGATION

August 31, 2005

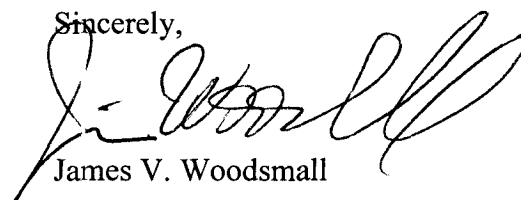
Associate Administrator for
Enforcement
National Highway Traffic Safety
Administration
400 7th Street, S.W.
Washington, DC 20590

Re: Pace American of Indiana, Inc. and
Pace American of Georgia, Inc.

Dear Sir or Madam:

Please find enclosed the Part 573 Defect and Noncompliance Report for
the above listed entities.

Sincerely,



James V. Woodsmall

JVW/mj

cc: Brian Skinner

SENT BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED

121 West Franklin Street
Suite 400
Elkhart, Indiana 46516-3278
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thefirm@warrickandboyn.com

msw\ltr\laae-jvw