ECO WHEEL CORPORATION

Index of Supplied Documents To:
Consumer Safety Officer
Office of Defect Investigation/Recall Management
NHTSA-DOT

January 4, 2008

1... Ammeded 573 Report to the National Highway Traffic Safety Administration

2... Attachment 1 (of the 573 Report), Test Reports
   a. Metallurgical Exam on Wheel 808-2295-5114-35-73C
   b. Metallurgical Exam on Wheel 808-2295-6114-20-78C
   c. Impact Testing & Radial Fatigue Testing on Model 810-2295-5D24-35-73C (Failed Impact)
   d. Radial Fatigue Testing on Model 810-2295-5112-35-73C
   e. Radial Fatigue Testing on Model 808-2295-6114-20-78C
   f. Impact Testing & Radial Fatigue Testing on Model 308-2410-6139-35-78C (Failed Impact)
   g. Impact Testing on Model 808-2295-5112-35-73C (Failed Impact)

3... Attachment 2 (of the 573 Report), Warranty Claims Report

15619 S. BLACKBURN AVE. NORWALK, CA 90650
562-921-9888 | FAX 562-921-9283

AMMENDED – JANUARY 4, 2008

1 . Safety

Defect and Noncompliance Report Guide for Equipment

PART 573 Defect and Noncompliance Report[1]

On Dec 6th , 2007, Eco Wheel Corporation [MFR] decided that (a defect which relates to motor vehicle safety)(a noncompliance with Federal Motor Vehicle Safety Standard No. 49) exists in items of motor vehicle equipment 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 ammended report was prepared: January 4, 2008

Furnish the manufacturer's identification code for this recall (if applicable): Not issued

1. Identify the full corporate name of the fabricating manufacturer/brand name/trademark owner of the recalled item of equipment. If the recalled item of equipment is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

Eco Wheel Corporation (Distributor - Brands – Eco, Echelon) 15619 S. Blackburn Ave., Norwalk, CA 90650

JIANGSU KAITE AUTOMOBILE PARTS CO., LTD. (Manufacturer) Airport Industrial Area ,Changzhou New Zone, Changzhou City Jiangsu Province, China 213133

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

Garry Burns, President

Telephone Number: 562-921-9888 **Fax No.:** 562-921-9282

Name and Title of Person who prepared this report.

Garry Burns, President

Signed:

[1]Each manufacturer must furnish a report, to the Associate Administrator for Enforcement, 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. George Person at (202) 366-5210, by FAX at (202) 366-7882, or E-Mail to RMD.ODI@dot.gov.

I. Identify the Recalled Items of Equipment

2. Identify the Items of Equipment Involved in this Recall, ***for each make and model or applicable item of equipment product line (provide illustrations or photographs as necessary to describe the item of equipment), provide*****:**

Generic name of the item:

Make: ECO **Model**: 810

Part Number: All **Size**: 20"x9", 22"x9.5", 24"x10"

Function: Aluminum Alloy Wheel

Other information which characterizes/distinguishes the items of equipment to be recalled:
Year manufactured – 2004, 2005, 2006 Quantity - All

Make: ECO **Model**: 808

Part Number: All **Size**: 20"x9", 22"x9.5", 24"x10"

Function: Aluminum Alloy Wheel

Other information which characterizes/distinguishes the items of equipment to be recalled:
Year manufactured – 2004, 2005, 2006 Quantity - All

Make: ECHELON **Model**: 308

Part Number: All **Size**: 20"x9", 22"x9.5", 24"x10", 26"x10"

Function: Aluminum Alloy Wheel

Other information which characterizes/distinguishes the items of equipment to be recalled:
Year manufactured – 2004, 2005, 2006 Quantity - All

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 Equipment equipped with certain items of equipment from January 1, 1996, through April 1, 1997, then what was the percentage of the recalled Equipment of all Equipment manufactured during that time period.

II. Identifying the Recall Population

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

Model	Year	Number of Items Potentially Involved
ECO 810	2004, 2005, 2006	18,125
ECO 808	2004, 2005, 2006	4,049
ECHELON 308	2004, 2005, 2006	4,102

Total Number Potentially Affected by the Recall: 26,276

4. Furnish the approximate percentage of the total number of items of equipment estimated to actually contain the defect or noncompliance: 100%

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 items of equipment: Population was determined by the total number of wheel purchased from the China manufacturer, Jiangsu Kaite Automobile Parts Co., Ltd. in the years 2004, 2005, 2006.

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.

Aluminum Alloy Wheels are breaking in half during use by consumer. Breakage is due to inferior manufacturing process resulting in inferior quality. See attached photos and reports, "Attachment 1"

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

Aluminum Alloy Wheels are breaking in half during use by consumer. Breakage is due to inferior manufacturing process resulting in inferior quality. See Attachment 1 - photos and test reports

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

If an Aluminum Alloy wheels breaks in half during uses, it could result in flying debris from the broken wheel which could cause and accident or the loss of control of the vehicle with the broken wheel which could also cause and accident.

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

The wheel show a crack in the outer rim section prior to full breakage.

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

JIANGSU KAITE AUTOMOBILE PARTS CO., LTD. (Manufacturer) Airport Industrial Area ,Changzhou New Zone, Changzhou City, Jiangsu Province, China 213133

Tel: 86-519-3204898 Fax: 86-519-3206800

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

Mr. Li Quang Yu and Mr. Mao Han Hau

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. See Attachment 2 – Warranty Claims Report

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.

See Attachment 1 – Photos and Test reports

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.

1. Recall all wheels made in 2004, 2005, 2006 that were manufactured by our supplier Jiangsu Kaite Automobile Co., Ltd. 2. Return all of the recalled wheels that are returned to Eco Wheel Corporation back to the manufacturer, Jiangsu Kaite Automobile Co., Ltd., as scrap defective wheels. ECO Wheel Corporation will contact its customers to notify them of the recall and to reqeust them to contact their customers or end users to return any wheels purchased that meet the recall criteria. The consumer is then required to return the wheels to the original place of purchase or contact ECO Wheel Corporation directly to confirm that the wheels meet the recall criteria. Upon receipt of the returned wheels by ECO and confirmation that the wheels meet the recall criteria, ECO will replace the wheels with another set of like or similar wheels.

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

All wheels are date stamped with the manufactured date.

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.

Eco Wheel Corporation discontinued purchasing these product from Jiangsu Kaite Automobile Parts Co., Ltd. on January 2007.

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.

The month of Dec-2007 and Jan-2008 Eco Wheel Corporation is sending notices to our warehouse distribution and retailer store customers to return Eco Wheel Corporation all wheels listed in this report. We will notify our warehouse distributiors and retail store customers to review their records to contact their customers or any end user consumers that they sold wheels to, to return all wheels listed in this report. It will be difficult to contact the end user consumer. Our customers probably only have invoice records that may only have the customer name and no contact information.

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) or by E-Mail (RMD.ODI@dot.gov) for review prior to mailing.***

Note: These documents are to be submitted separately from those provided in accordance with Part 579.5 requirements.

2. a.

Tire Testing & Analysis
Vehicle Testing & Performance Evaluation
Materials Testing & Technical Consulting
Management Consulting & Market Research
Quality & Environmental Systems Certification

Smithers Scientific Services, Inc.
425 WEST MARKET STREET • AKRON, OHIO 44303-2049

WORLD HEADQUARTERS
PH: 330/762-7441 FAX: 330/762-7447
www.smithersscientific.com

Mr. Garry Burns
Eco Wheel Corporation
15619 S. Blackburn Ave.
Norwalk, CA 90650

Re: Examination of Aluminum Wheel
Smithers' File No: 4000M/0770
ECO P.O. ECO080701

Dear Mr. Burns:

Enclosed please find our report for the examination of the Aluminum Wheel after Radial Testing.

An invoice for this analysis is also enclosed.

If you have any questions, please do not hesitate to contact us.

If you would like either of the wheels returned, please let us know.

Sincerely yours,

Garth D. Lawrence
Sr. Metallurgical Materials Specialist

Thomas M. Dodson
Vice President, Consulting Services

Examination of Aluminum Wheel
Smithers Scientific Services 4000M/0770

Introduction

A 22 x 9.5J chrome plated aluminum wheel was received from ECO Wheel Corporation for examination after Radial Test No. 752-0002 at the Smithers Scientific Services Ravenna Laboratory. The wheel completed 1,100,000 cycles at 5500 lbs machine load with no visible cracks. Visual, macro and micro examination of the wheel was conducted. Hardness of the metal in the drop center area and chemical composition were measured. This evaluation was conducted to compare with the wheel described in report 4000M/0756. The material was reported to be A356 permanent mold cast aluminum.

Discussion

Figures 1 through 9 show the wheel and associated identification markings on it. Figure 10 shows some identification marking that had been scribed on the mounting surface. The wheel was visually examined and was coated with smooth, shiny Cu – Ni – Cr plating on the curb side surfaces. Since there was no fracture of the wheel as result of the test, the drop center area where the 0756 wheel fractured was carefully examined. There was evidence of fine pits in the plating on the back side of the wheel as shown in a section of the drop center surface (Figure 11). In the bottom photograph the surface is magnified about 5 times and the bright spots appear to be pits in the surface that could have resulted from porous spots in the cast aluminum. Some typical shrinkage defects are shown in Figure 12 and 13, and were similar to those found in the 0756 wheel. The wheel was found to be about 0.25 - 0.26 inches thick at the drop center – similar to the 0756 wheel. The wheel weighed 44.7 lbs.

Figures 12 and 13 also showed that the eutectic silicon particles were well modified, and there was no evidence of large intermetallic compounds that would be present if the iron impurity levels were too high.

Since it was not possible to machine a tensile bar from the casting in the drop center area a small section was removed and the hardness was found to be 31 Rockwell B or about 16 points softer than the 0756 wheel. This could be the result of a different heat treatment schedule, or different thermal gradients.

A section of the drop center area was exposed to a 5% salt spray per ASTM B117 for 24 hours in an attempt to generate the blisters reported in the 0756 wheel. No visible blisters were noted.

Chemical analysis was performed on a section from the drop center and the results are shown in Table 1. The analysis appeared to be typical for A356.0 aluminum alloy.

Conclusion

The wheel completed 1,100,000 cycles on radial fatigue test with no visible cracking.

The wheel was about 0.25 to 0.26 inch thick in the drop center area, which was equivalent to the thickness of 0756 wheel.

The hardness was measured in the area of fracture and was lower than the wheel evaluated in 0756 report.

There was evidence of internal shrinkage in the drop center area of the wheel, but no nonmetallic inclusions noted. The type of shrinkage appeared to be similar to that present in the 0756 wheel.

The chemical composition was typical of A356.0 Aluminum.

Garth D. Lawrence
Sr. Metallurgical Materials Specialist

Thomas M. Dodson
Vice President, Consulting Services

Figure 1
Cast Aluminum Wheel
22 x 9.5J
Face

Figure 2
Back Side

Figure 3
Marking on Spokes

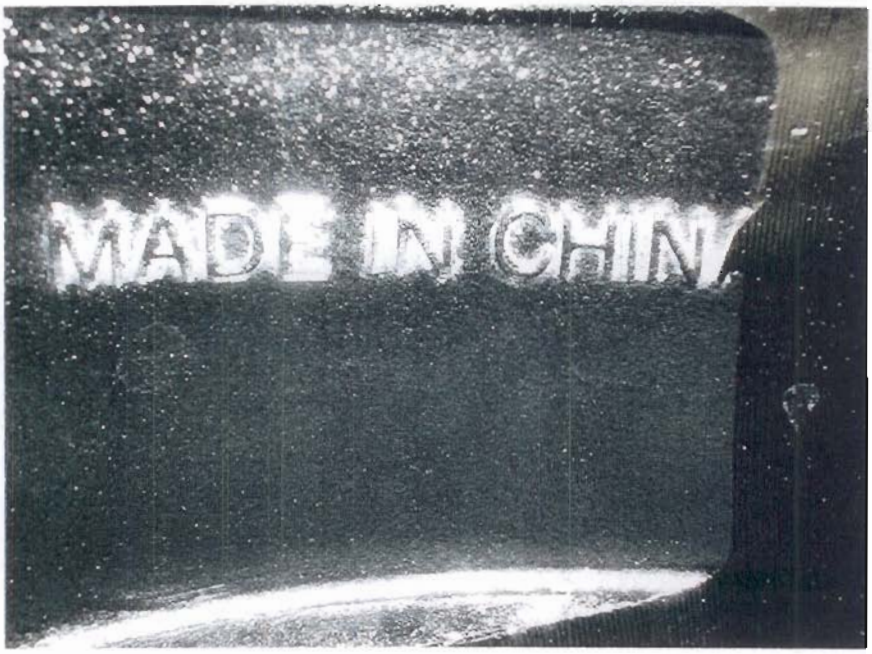


Figure 4
Marking on Spokes

Figure 5
Marking on Spokes

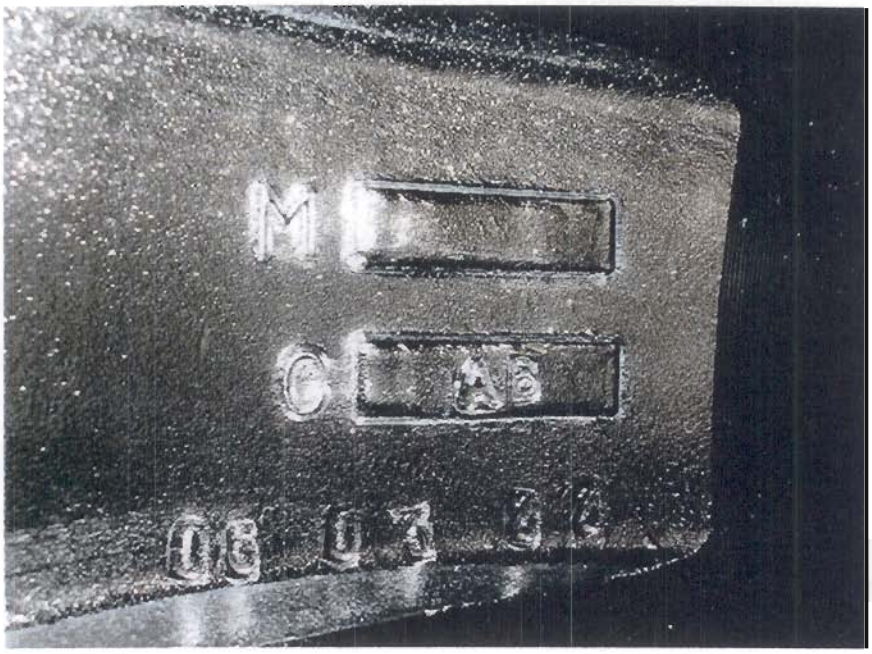


Figure 6
Marking on Spokes

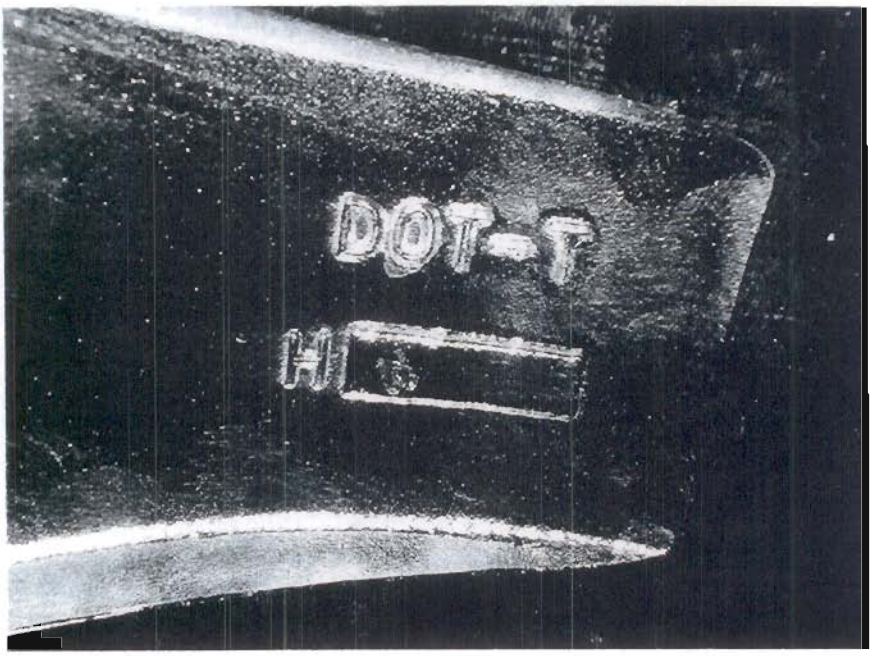


Figure 7
Marking on Spokes

Figure 8
Marking on Spokes

Figure 9
Marking on Tire Side at Valve Hole

Figure 10
Marking Scribed on Mounting Surface

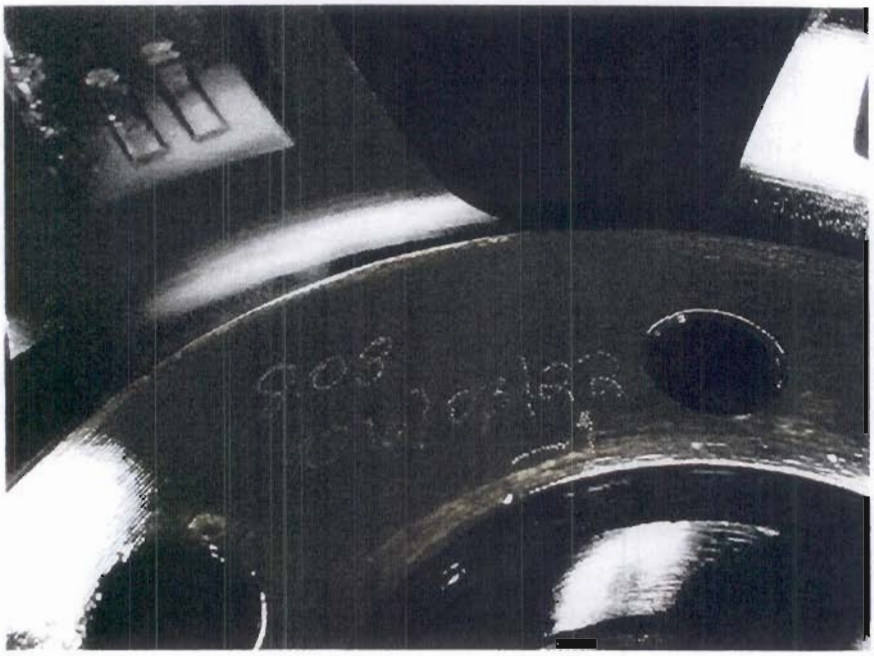
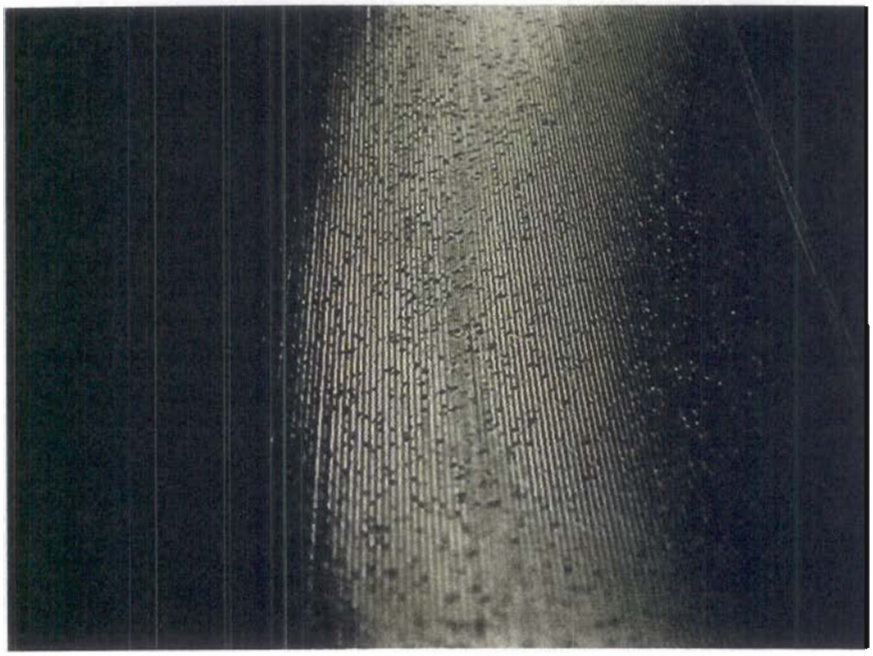


Figure 11
Weather Side Drop Center Surface



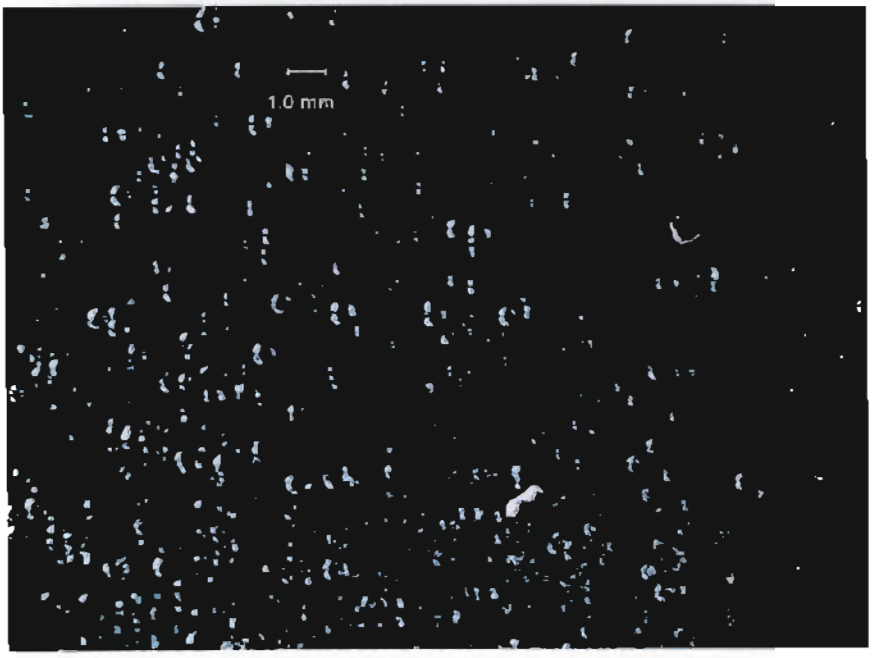
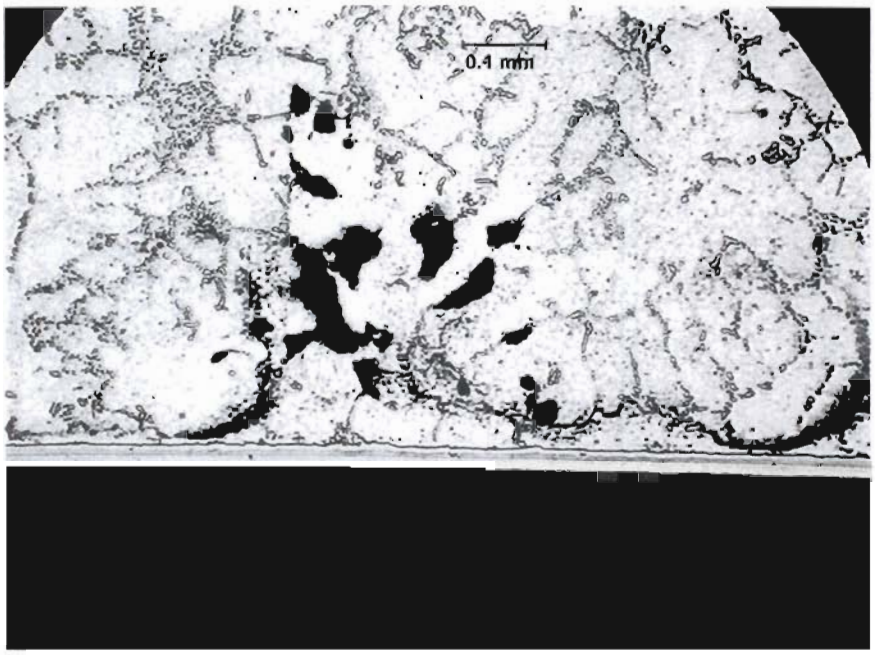
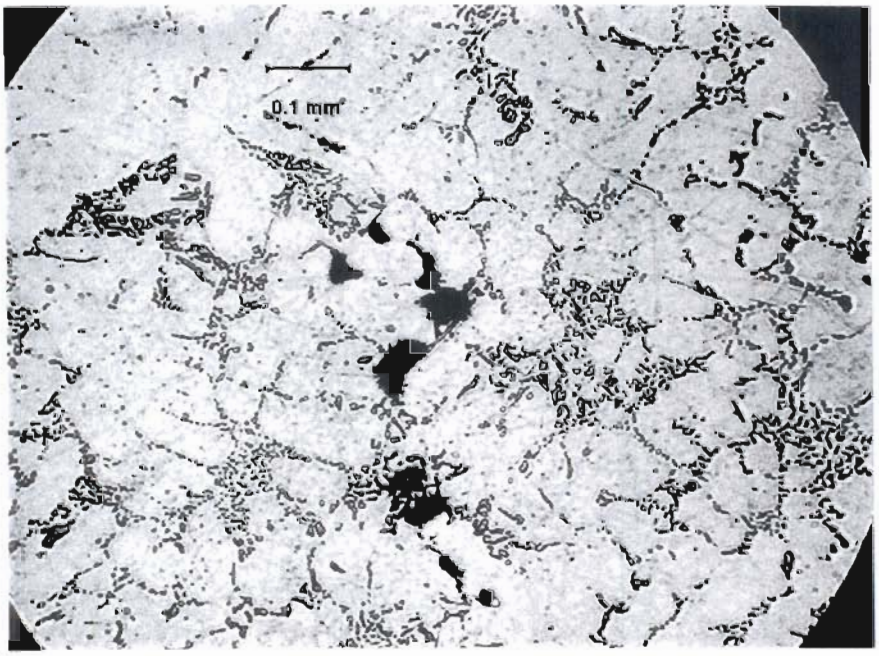


Figure 12
Casting Defect Near Plated Surface
Weather Side Drop Center



Etch 1% HF

Figure 13
Internal Casting Defect in Drop Center



etch 1%HF

Table 1
Chemical Composition of Wheel

Element	Percent
Silicon	7.1
Iron	.16
Magnesium	.37
Copper	<.02
Titanium	.015
Strontium	.008
Manganese	<.02
Zinc	<.03

Analysis by Herron Labs

2. b.

Tire Testing & Analysis
Vehicle Testing & Performance Evaluation
Materials Testing & Technical Consulting
Management Consulting & Market Research
Quality & Environmental Systems Certification

Smithers Scientific Services, Inc.
425 WEST MARKET STREET • AKRON, OHIO 44303-2099

WORLD HEADQUARTERS
PH: 330/762-7441 FAX: 330/762-7447
www.smithersscientific.com

July 30, 2007

Mr. Garry Burns
Eco Wheel Corporation
15619 S. Blackburn Ave.
Norwalk, CA 90650

Re: Examination of Aluminum Wheel
Smithers' File No: 4000M/0756
ECO P.O. ECO072507

Dear Mr. Burns:

Enclosed please find our report for the examination of the Aluminum Wheel.

An invoice for this analysis is also enclosed.

If you have any questions, please do not hesitate to contact us.

Sincerely yours,

Garth D. Lawrence
Sr. Metallurgical Materials Specialist

Thomas M. Dodson
Vice President, Consulting Services

Examination of Aluminum Wheel
Smithers Scientific Services 4000M/0756

Introduction

A 22 x 9.5J chrome plated aluminum wheel was received from Eco Wheel Corporation for examination of a 360 degree separation in the rear drop center area. The separation was reported to have occurred on a moving vehicle. Visual, macro and micro examination of the fracture area and hardness of the metal in the drop center area were performed. The material was reported to be A356.2 permanent mold cast aluminum.

Discussion

Figures 1 through 9 show the wheel and associated identification markings on it. The fracture was in the area of the rear drop center radius and the wheel separated in two pieces as shown in the photographs. There was no evidence of any impact damage or and external marking on the wheel from contact with other suspension components. This would indicate that the tire held the two pieces together until the vehicle stopped. There was no evidence of significant deformation of the wheel in the area of the separation.
The separated surfaces were examined to determine the type of fracture. Since wheels are subjected to cyclical loading once per revelation, fatigue fracture is commonly observed. However in this wheel no areas of the fracture surface were found that appeared to have been generated from fatigue loading. Based on the fracture surface characteristics, the crack formed in one loading cycle, indicating an over load condition. The thickness of the wheel at the fracture was about 0.25 - 0.26 inches.

Examination of the fracture surface also indicated there was evidence of non metallic particles and shrinkage porosity as shown in Figures 10, 11, 12, 13, 14 and 15. Figure 10 showed there was casting shrinkage on the wheel surface and internally in the area of the crack and Figure 11 shows that the crack propagated through some internal shrinkage. Figure 12 showed another area of internal shrinkage near the fracture. The same figure also showed that the eutectic silicon particles were well modified, and there was no evidence of large intermetallic compounds that would be present if the iron impurity level were too high. There was a white nonmetallic substance on fracture surface (Figure 13) and on the casting surface under the plating (see blisters in Figures 14 and 15). There were numerous blisters in the plating on the weather side drop center indicating that the white substance is hydroscopic. This would be typical of fluxes and / or oxides that were not removed from the molten metal when the casting was produced.

Since it was not possible to machine a tensile bar from the casting in the drop center area a small section was removed and the hardness was found to be 47 Rockwell B near the fracture. That would convert to about 80 Brinell which is the typical hardness listed for permanent mold cast 356 aluminum in the ASM Metals Handbook.

Conclusion

The wheel fractured in two pieces in the drop center area. The fracture appeared to have occurred in one cycle indicating a significant single event loading that could have occurred from a pot hole or curb impact. Since there was no visible damage on the wheel, the impact likely came through the tire.

The wheel was about 0.25 to 0.26 inch thick at the fracture surface. This thickness should be verified on the part drawing to confirm it is correct.

The hardness was measured in the area of fracture and was typical of the values reported for a 356 aluminum permanent mold casting.

There were a number of shrinkage and non metallic inclusions in the area of the fracture that would have the effect of reducing the load carrying capability of the wheel. These anomalies could significantly lower the ductility and reduce the impact strength of the wheel.

The non metallic inclusions could have resulted from improper preparation and filtration of the molten aluminum during the casting process. In addition to the mold design, many different permanent molding machine operating parameters could affect the amount and location of the porosity in the casting.

Garth D. Lawrence
Sr. Metallurgical Materials Specialist

Thomas M. Dodson
Vice President, Consulting Services

Figure 1
Cast Aluminum Wheel
22 x 9.5J

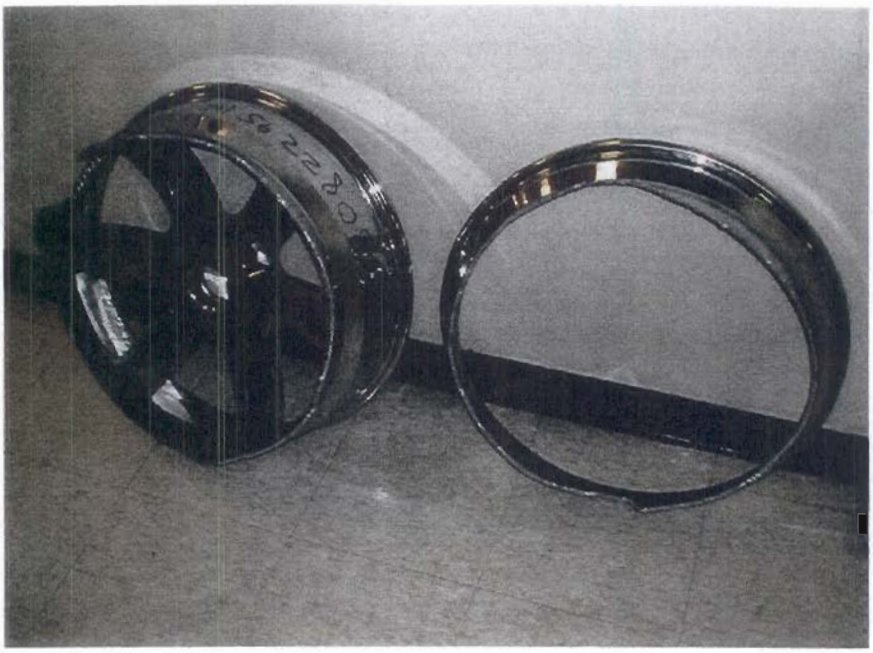


Figure 2
As Received Identification

Figure 3
Marking on Spokes

Figure 4
Marking on Spokes

Figure 5
Marking on Spokes

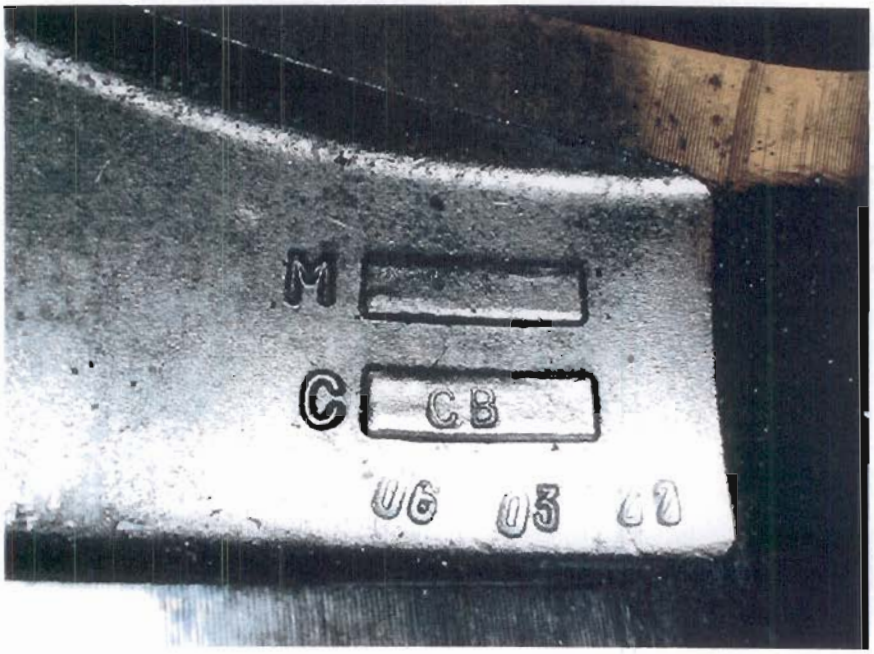


Figure 6
Marking on Spokes

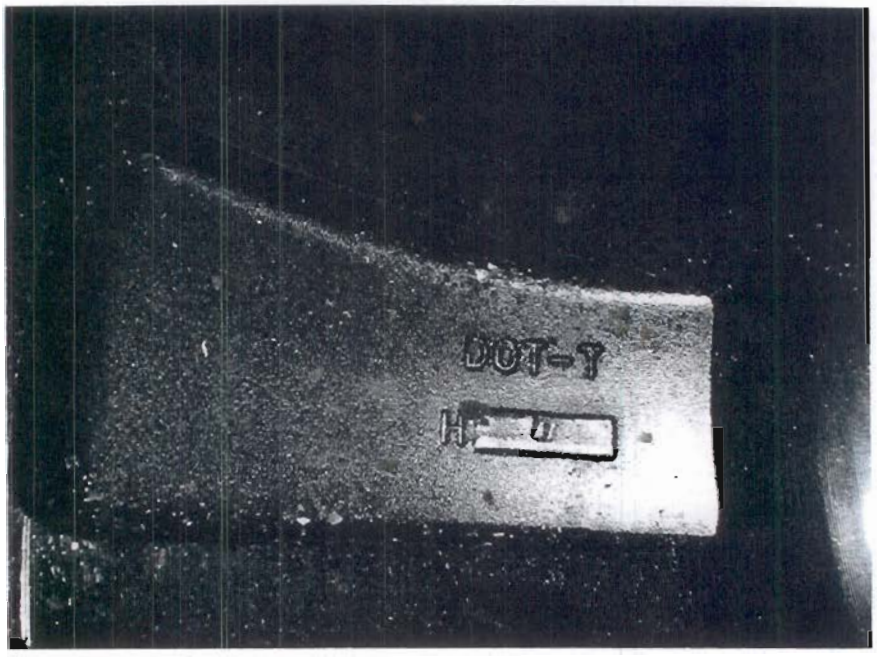


Figure 7
Marking on Spokes

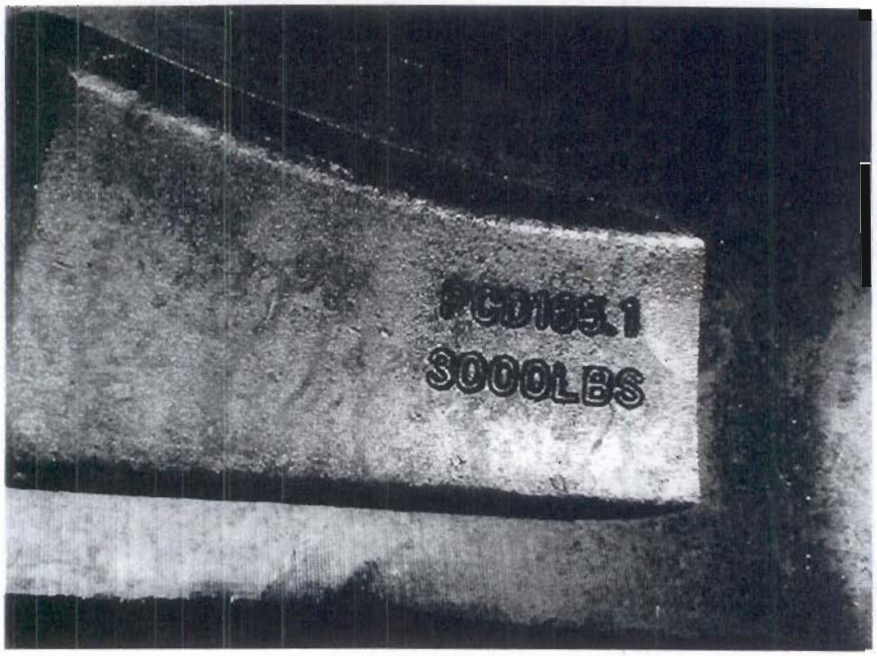


Figure 8
Marking on Spokes

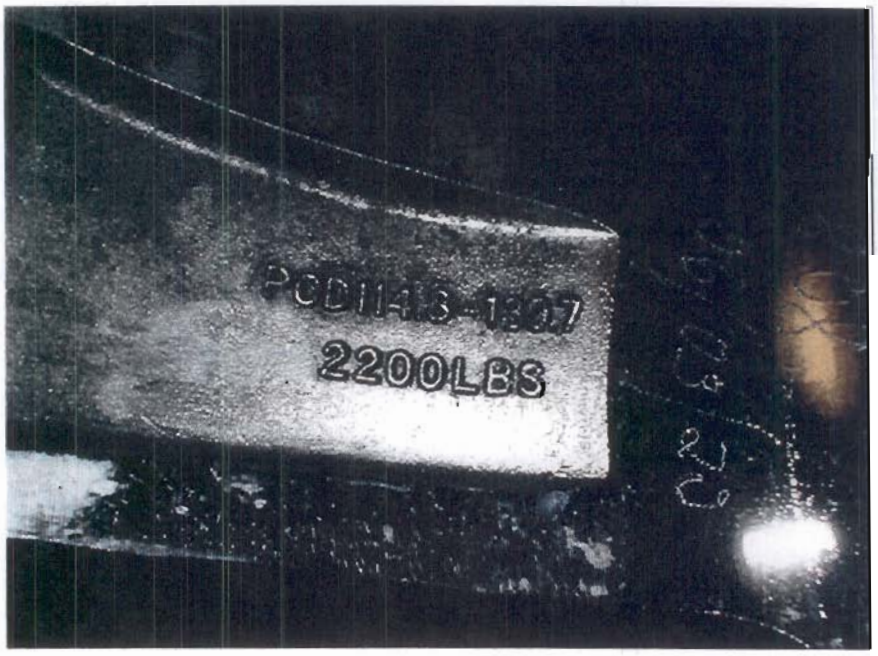


Figure 9
Marking on Tire Side at Valve Hole

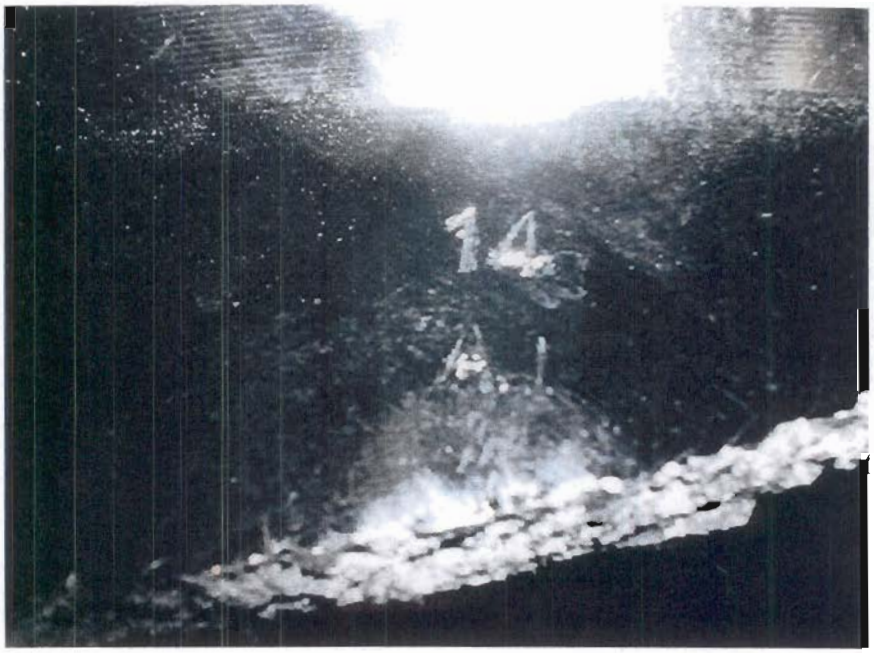
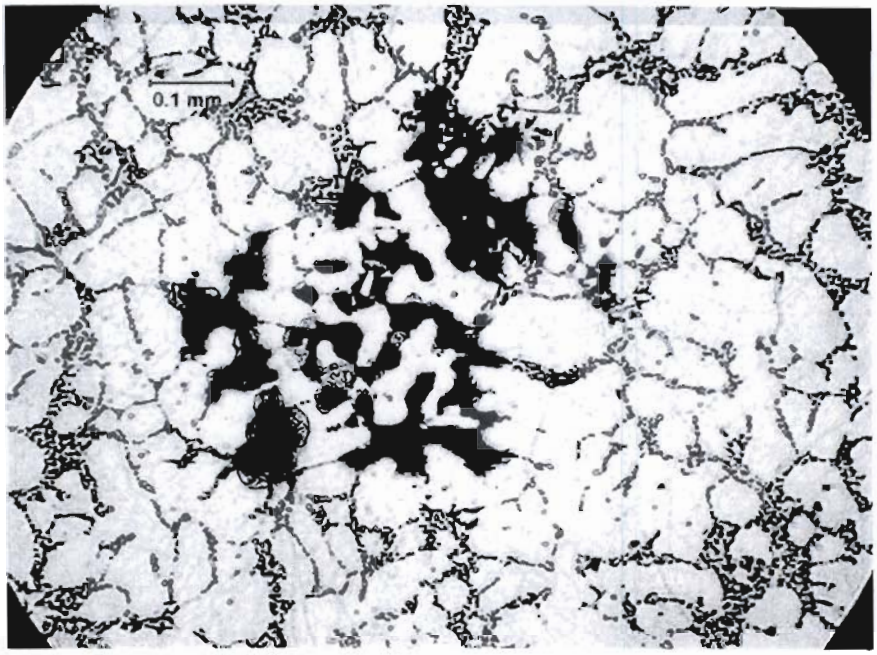


Figure 10
Casting Defect at Surface
Weather Side Drop Center

Figure 11
Casting Defect at Fracture

Figure 12
Internal Casting Defect Near Fracture



etch 1%HF

Figure 13
Non Metallic Inclusions
In Fracture Surface

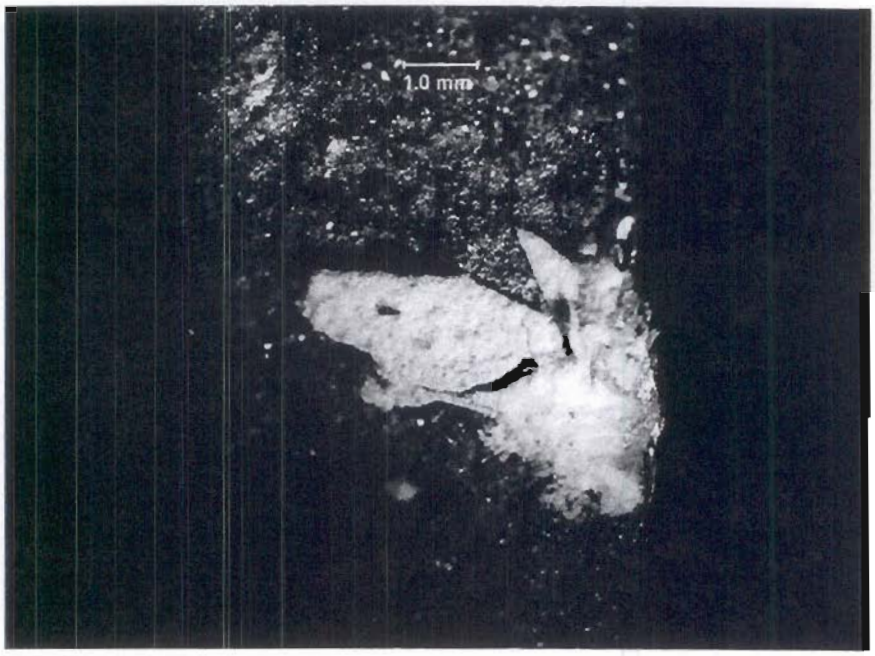


Figure 14
Blisters in Plating
Weather Side Drop Center

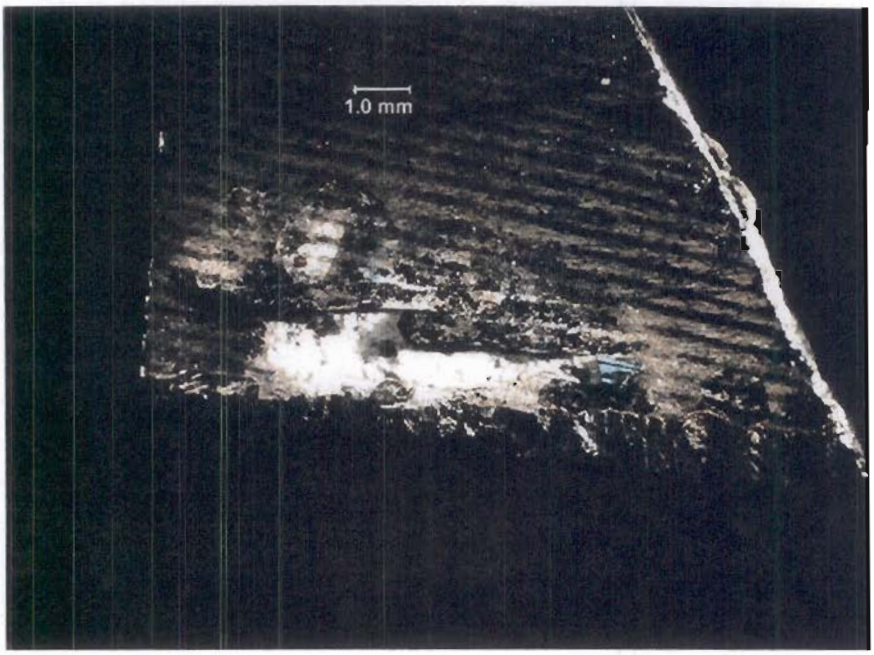
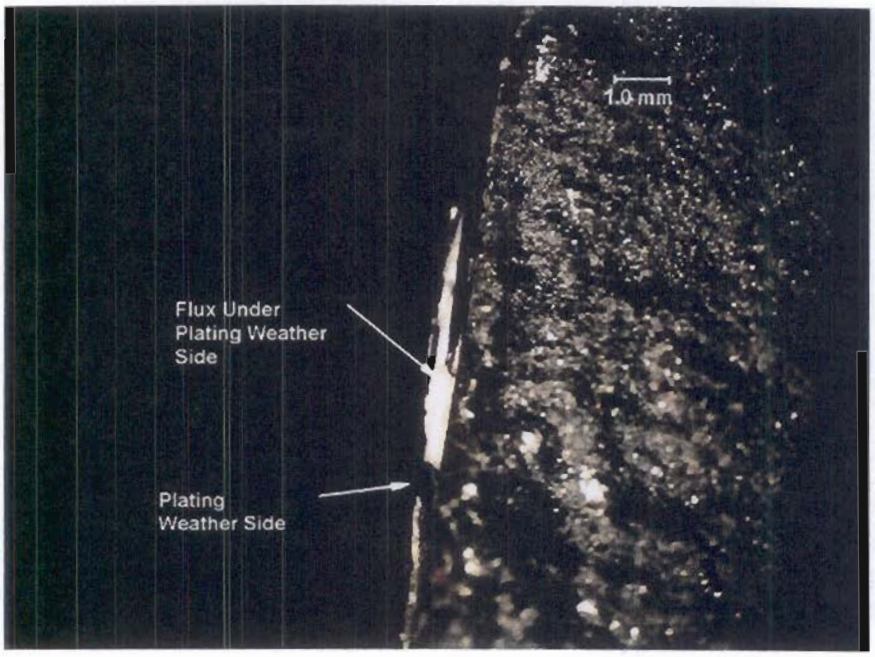


Figure 15
Non Metallic Material on Al Surface Under Plating



2. c.

Tire Testing & Analysis
Vehicle Testing & Performance Evaluation
Materials Testing & Technical Consulting
Management Consulting & Market Research

Smithers Scientific Services, Inc.
1150 NORTH FREEDOM STREET • RAVENNA, OHIO 44266
PH: 330/297-1495 FAX: 330/297-0038

RAVENNA DIVISION
Web: www.smithersscientific.com
E-mail: info@smithersmail.com

Impact

Wheel Description

Test No.:	810-2295-5D24-35-73-C	**Wheel Name:**	N/A
Client:	ECO WHEEL	**RAV #**	752-0007
Wheel Size:	22 x 9.5		
Bolt Pattern:	5 on 4.5		

Test Conditions

Tire Size:	P285/45R22	**Brand:**	MICHELIN	
PSI Cold:	50	**Torque:**	81	
Drop Hight:	9"	**Drop Weight:**	1715	IDEAL
			1714.1	ACTUAL

Test Results

Test Date:	9/15/2007	**PSI After Drop:**	48
			SPOKE
VELOSITY SENSOR HT.:	1.05		
IDEAL VELOSITY TIME:			13.15
ACTUAL VELOS. TIME:			13.23

CONTACTED AREA:

Test Results: SPOKE-CRACKED AT IMPACT AREA-AIR LOSS

Laboratory Approval: _____

SMITHERS SCIENTIFIC SERVICES
RAVENNA DIVISION

1150 N. Freedom St. Ravenna, OH44266 Phone: (330)-297-1495 Fax: (330)-297-0038

DYNAMIC RADIAL FATIGUE

Test No.: 752-0003
Client: Eco Wheel
Wheel Manuf.: Eco Wheel
Wheel Name: N/A
Wheel Size: 22 x 9
Rated Load(Lbs): 2200
Date Received: 7/17/2007

Client Whl. No.: 81022955D243573C
Die Number:
P.O. No.: N/A
Release No.: N/A
Job No.: N/A
Bolt Patern: 5 on 4.5 diameter
Offset:

Pre-Test Insp.: NO VISUAL DEFECTS

TEST CONDITIONS

Tire size: P285/45R22
Tire Manuf.: Michelin
Tire Build: Radial
Fastener Size: 14mm
Fastener Type: 60°Cone Seat
Machine No.: 5 **Position No.:** 1

Test Load (Lbs): 5500
Test Speed (Mph): 40
Torque (Ft-Lbs): 85
Test Press. (Psi): 65
Test Standard: SAE J2530
Accel. Factor: 2.5

Inspec. Cycles: 2,000 1,100,000
Comments: RE-TORQUE,2K, RUN TO 1,100,000 CYCLES,TEST COMPLETE

Adapter No.: NO # Flat. @ .002
Shim No.: NO # Flat. @ .002

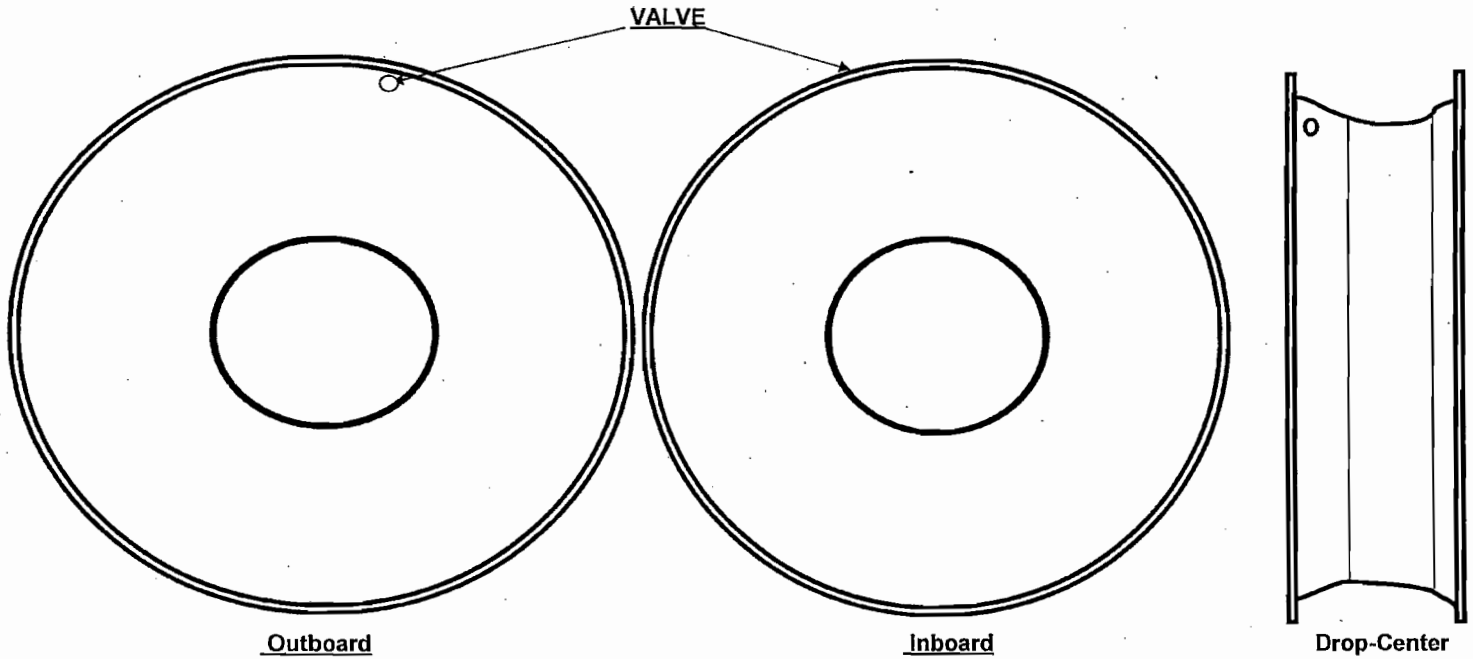
DATE	TIME	On Off	OP	CYCLES	MPH	LOAD	IN INF.	Station Id	Total Hours	Log Lgnd	REMARK
10-Aug-2007	19:07	ON	VE		35	5500	65	5-1	0.00	STR	TEST START
10-Aug-2007	19:12	OFF	VE	2000			70	5-1	0.08	INS	TORQUE CHECK
10-Aug-2007	19:17	ON	VE	2000	35	5500	65	5-1	0.08	RST	RESUME.
11-Aug-2007	21:40	OFF	VE	608105			65	5-1	26.47	INS	INSPECTION,TORQUE CHECK
11-Aug-2007	22:25	ON	VE	608105	35	5500	65	5-1	26.47	RST	OK
12-Aug-2007	20:00	OFF	JE	1100000			65	5-1	48.05	END	TEST COMPLETE

Post Test Inspection: **Zaglo by:** JE **Photo by:** N/A
Test Results: NO VISUAL DEFECTS
Tires Used in Test: 1
Test Review Tech.: DLM

Laboratory Approval: _____ **Date:** 8/12/2007

Title: Technical Support Specialist

Rav No: 752.0003 Client I.D # Cycles.: 1.1 Mill



Remarks: NVD

Tech: JE Date: 9/12

Rev.-7/1/04

2. d.

SMITHERS SCIENTIFIC SERVICES

RAVENNA DIVISION

1150 N. Freedom St. Ravenna, OH44266 Phone: (330)-297-1495 Fax: (330)-297-0038

DYNAMIC RADIAL FATIGUE

Test No.: 752-0002
Client: Eco Wheel
Wheel Manuf.: Eco Wheel
Wheel Name: N/A
Wheel Size: 22 x 9
Rated Load(Lbs): 2200
Date Received: 7/17/2005

Client Whl. No.: 810229551123573C3C
Die Number: N/A
P.O. No.:
Release No.:
Job No.:
Bolt Patern: 5 on 112mm diameter
Offset:

Pre-Test Insp.: NO VISUAL DEFECTS

TEST CONDITIONS

Tire size: P285/45R22
Tire Manuf.: Michelin
Tire Build: Radial
Fastener Size: 14mm
Fastener Type: 60°Cone Seat
Machine No.: 9 **Position No.:** 4

Test Load (Lbs): 5500
Test Speed (Mph): 40
Torque (Ft-Lbs): 85
Test Press. (Psi): 65
Test Standard: SAE J2530
Accel. Factor: 2.5

Inspec. Cycles: 2,000 1,100,000
Comments: RE-TORQUE,2K, RUN TO 1,100,000 CYCLES,TEST COMPLETE

Adapter No.: NO # Flat. @ .002
Shim No.: NO # Flat. @ .002

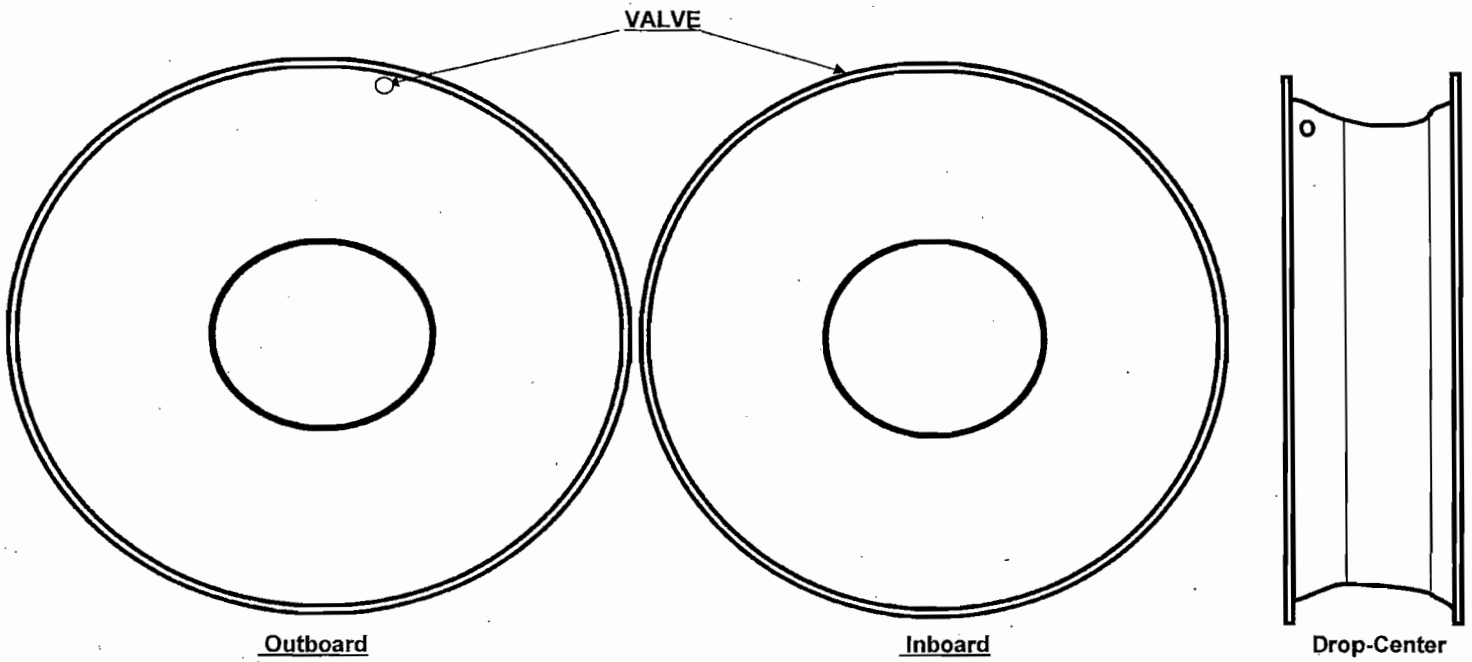
DATE	TIME	On Off	OP	CYCLES	MPH	LOAD	IN INF.	Station Id	Total Hours	Log Lgnd	REMARK
03-Aug-2007	15:05	ON	TE		40	5500	65	9-4	0.00	STR	TEST START.NEW TIRE NO #
03-Aug-2007	15:09	OFF	TE	2000			70	9-4	0.07	INS	TORQUE CHECK
03-Aug-2007	15:15	ON	TE	2000	40	5500	65	9-4	0.07	RST	RESUME.
04-Aug-2007	9:01	OFF	TE	466104			65	9-4	17.83	INS	INSPECTION
04-Aug-2007	9:06	ON	TE	466104	40	5500	65	9-4	17.83	RST	OK
05-Aug-2007	9:16	OFF	TE	1100000			65	9-4	42.00	END	TEST COMPLETE

Post Test Inspection: **Zaglo by:** TE **Photo by:** N/A
Test Results: NO VISUAL DEFECTS
Tires Used in Test: 1
Test Review Tech.: DLM

Laboratory Approval: _____ **Date:** 8/07/2007

Title: Technical Support Specialist

Rav No: 752-0002 Client I.D # Cycles.: 1.1 M.U



Remarks: NVD

Tech: TL Date: 9/15

Rev.-7/1/04

2. e.

SMITHERS SCIENTIFIC SERVICES

RAVENNA DIVISION

1150 N. Freedom St. Ravenna, OH44266 Phone: (330)-297-1495 Fax: (330)-297-0038

DYNAMIC RADIAL FATIGUE

Test No.:	752-0004	**Client Whl. No.:**	808229561142078C
Client:	Eco Wheel	**Die Number:**	N/A
Wheel Manuf.:	ECO WHEEL	**P.O. No.:**	N/A
Wheel Name:	N/A	**Release No.:**	N/A
Wheel Size:	22 x 9.5	**Job No.:**	N/A
Rated Load(Lbs):	2200	**Bolt Patern:**	6 on 114mm diameter
Date Received:	7/17/2007	**Offset:**	

Pre-Test Insp.: NO VISUAL DEFECTS

TEST CONDITIONS

Tire size:	P285/45R22	**Test Load (Lbs):**	5500
Tire Manuf.:	Michelin	**Test Speed (Mph):**	40
Tire Build:	Radial	**Torque (Ft-Lbs):**	85
Fastener Size:	14mm	**Test Press. (Psi):**	65
Fastener Type:	60°Cone Seat	**Test Standard:**	SAE J2530
Machine No.:	9 **Position No.:** 4	**Accel. Factor:**	2.5
Inspec. Cycles:	2,000 1,100,000	**Adapter No.:**	NO # Flat. @ .002
Comments:	RE-TORQUE,2K, RUN TO 1,100,000 CYCLES,TEST COMPLETE	**Shim No.:**	NO # Flat. @ .002

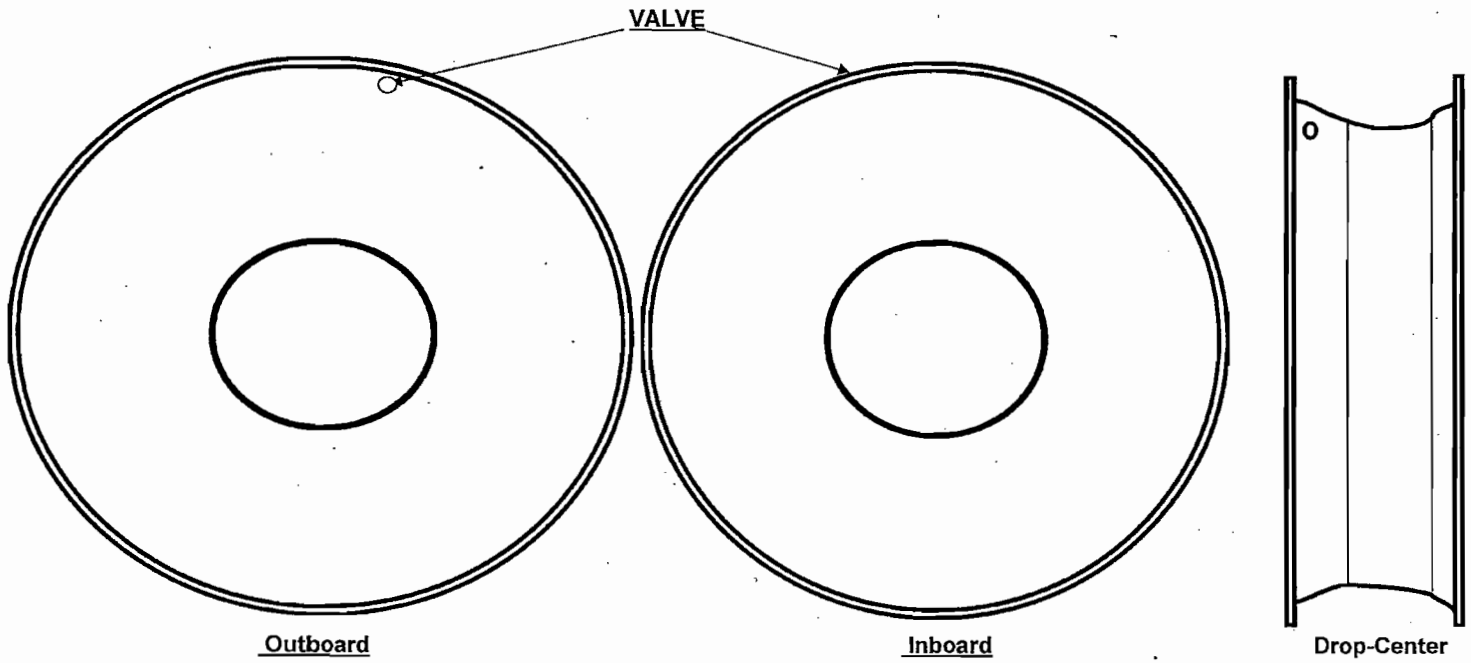
DATE	TIME	On Off	OP	CYCLES	MPH	LOAD	IN INF.	Station Id	Total Hours	Log Lgnd	REMARK
17-Aug-2007	8:15	ON	TE		40	5500	65	9-1	0.00	STR	TEST START
17-Aug-2007	8:19	OFF	TE	2000			70	9-1	0.07	INS	TORQUE CHECK
17-Aug-2007	8:25	ON	TE	2000	40	5500	65	9-1	0.07	RST	RESUME
18-Aug-2007	2:11	OFF	BG	466104			65	9-1	17.83	INS	TORQUE CHECK, INSPECTION
18-Aug-2007	2:15	ON	BG	466104	40	5500	65	9-1	17.83	RST	OK
19-Aug-2007	2:25	OFF	BG	1100000			65	9-1	42.00	E.	NO VISUAL DEFECTS

Post Test Inspection: **Zaglo by:** BG **Photo by:** N/A
Test Results: NO VISUAL DEFECTS
Tires Used in Test: 1
Test Review Tech.: SS

Laboratory Approval: _____ **Date:** 8/21/2007

Title: Technical Support Specialist

Rav No: 752-0004 Client I.D # Cycles.: 1.1 M/11



Remarks: NVD

Tech: JG Date: 8/19

Rev.-7/1/04

2. f.

Tire Testing & Analysis
Vehicle Testing & Performance Evaluation
Materials Testing & Technical Consulting
Management Consulting & Market Research

Smithers Scientific Services, Inc.
1150 NORTH FREEDOM STREET • RAVENNA, OHIO 44266
PH: 330/297-1495 FAX: 330/297-0038

RAVENNA DIVISION
Web: www.smithersscientific.com
E-mail: info@smithersmail.com

Impact
Wheel Description

Test No.:	308-2410-6139-35-78C	**Wheel Name:**	N/A
Client:	ECO WHEEL	**RAV #**	752-0008
Wheel Size:	24 x 10		
Bolt Pattern:	6 on 139mm		

Test Conditions

Tire Size:	P295/45R24	**Brand:**	MICHELIN	
PSI Cold:	50	**Torque:**	81	
Drop Hight:	9"	**Drop Weight:**	1715	IDEAL
			1714.1	ACTUAL

Test Results

Test Date:	10/5/2007	**PSI After Drop:**	50
			WINDOW
VELOSITY SENSOR HT.:	0.7		
IDEAL VELOSITY TIME:			12.84
ACTUAL VELOS. TIME:			12.84

CONTACTED AREA:

Test Results: WINDOW-CRACKED AT IMPACT AREA-NO AIR LOSS

Laboratory Approval: 

SMITHERS SCIENTIFIC SERVICES
RAVENNA DIVISION

1150 N. Freedom St. Ravenna, OH44266 Phone: (330)-297-1495 Fax: (330)-297-0038

DYNAMIC RADIAL FATIGUE

Test No.: 752-0001
Client: Eco Wheel
Wheel Manuf.: Eco Wheel
Wheel Name: N/A
Wheel Size: 24 X 10.
Rated Load(Lbs): 2200
Date Received: 8/21/2007

Client Whl. No.: 308241061393578C
Die Number: N/A
P.O. No.:
Release No.:
Job No.:
Bolt Patern: 6 on 139mm diameter
Offset:

Pre-Test Insp.: NO VISUAL DEFECTS

TEST CONDITIONS

Tire size: P295/45R24
Tire Manuf.: Michelin
Tire Build: Radial
Fastener Size: 14mm
Fastener Type: 60°Cone Seat
Machine No.: 5 **Position No.:** 1

Test Load (Lbs): 5500
Test Speed (Mph): 40
Torque (Ft-Lbs): 85
Test Press. (Psi): 65
Test Standard: SAE J2530
Accel. Factor: 2.5

Inspec. Cycles: 2,000 1,100,000
Comments: RE-TORQUE,2K, RUN TO 1,100,000 CYCLES,TEST COMPLETE

Adapter No.: NO # Flat. @ .002
Shim No.: NO # Flat. @ .002

DATE	TIME	On Off	OP	CYCLES	MPH	LOAD	IN INF.	Station Id	Total Hours	Log Lgnd	REMARK
28-Jul-2007	17:49	ON	JE		15	5500	65	14-3	0.00	STR	TEST START
28-Jul-2007	18:01	OFF	KB	2940			74	14-3	0.20	INS	TORQUE CHECK
28-Jul-2007	18:06	ON	KB	2940	15	5500	65	14-3	0.20	RST	RESUME
29-Jul-2007	4:00	OFF	TE	148470			0	14-3	10.10	INS	TIRE FAILURE
30-Jul-2007	17:57	ON	JE	148470	15	5500	65	14-3	10.10	RST	NEW TIRE, RESUME
30-Jul-2007	18:09	OFF	JE	151410			70	14-3	10.30	INS	TORQUE CHECK
30-Jul-2007	18:14	ON	JE	151410	15	5500	65	14-3	10.30	RST	RESUME
30-Jul-2007	22:53	OFF	JE	219765			65	14-3	14.95	INS	TORQUE CHECK, INSPECTION
30-Jul-2007	22:58	ON	JE	219765	15	5500	65	14-3	14.95	RST	OK
31-Jul-2007	7:00	OFF	VE	337806			0	14-3	22.98	INS	TIRE FAILURE
01-Aug-2007	10:23	ON	TE	337806	15	5500	65	14-3	22.98	RST	NEW TIRE, RESUME
01-Aug-2007	10:46	OFF		343539			69	14-3	23.37	INS	TORQUE CHECK
01-Aug-2007	10:50	ON	TE	343539	10	5500	65	14-3	23.37	RST	RESUME
01-Aug-2007	21:47	OFF	JE	400698			65	14-3	34.32	INS	INSPECTION,TORQUE CHECK
01-Aug-2007	21:52	ON	JE	400698	10	5500	65	14-3	34.32	RST	OK
02-Aug-2007	10:33	OFF	TE	466888			75	14-3	47.00	INS	INSPECTION,TORQUE CHECK
02-Aug-2007	10:38	ON	TE	466888	10	5500	75	14-3	47.00	RST	OK
02-Aug-2007	15:44	OFF	JE	493510				14-3	52.10	INS	TIRE FAILURE NO #
20-Aug-2007	21:44	ON	JE	493510	10	5500	65	14-3	52.10	RST	RESUME,NEW TIRE NO #
20-Aug-2007	21:57	OFF	JE	495510			68	14-3	52.32	INS	TORQUE CHECK
20-Aug-2007	22:02	ON	JE	495510	10	5500	65	14-3	52.32	RST	RESUME
21-Aug-2007	8:30	OFF	KB	593509			70	14-3	62.78	INS	INSPECTION,TORQUE CHECK
21-Aug-2007	8:35	ON	KB	593509	10	5500	65	14-3	62.78	RST	OK
21-Aug-2007	13:32	OFF	KB	695331			65	14-3	67.73	INS	TEMPORARY STOP
22-Aug-2007	9:27	ON	SS	695331	10	5500	65	14-3	67.73	RST	RESUME.

TEST CONDITIONS

Tire size:	P295/45R24	**Test Load (Lbs):**	5500
Tire Manuf.:	Michelin	**Test Speed (Mph):**	40
Tire Build:	Radial	**Torque (Ft-Lbs):**	85
Fastener Size:	14mm	**Test Press. (Psi):**	65
Fastener Type:	60°Cone Seat	**Test Standard:**	SAE J2530
Machine No.:	5 **Position No.:** 1	**Accel. Factor:**	2.5
Inspec. Cycles:	2,000 1,100,000	**Adapter No.:** NO #	Flat. @ .002
Comments:	RE-TORQUE,2K, RUN TO 1,100,000 CYCLES,TEST COMPLETE	**Shim No.:** NO #	Flat. @ .002

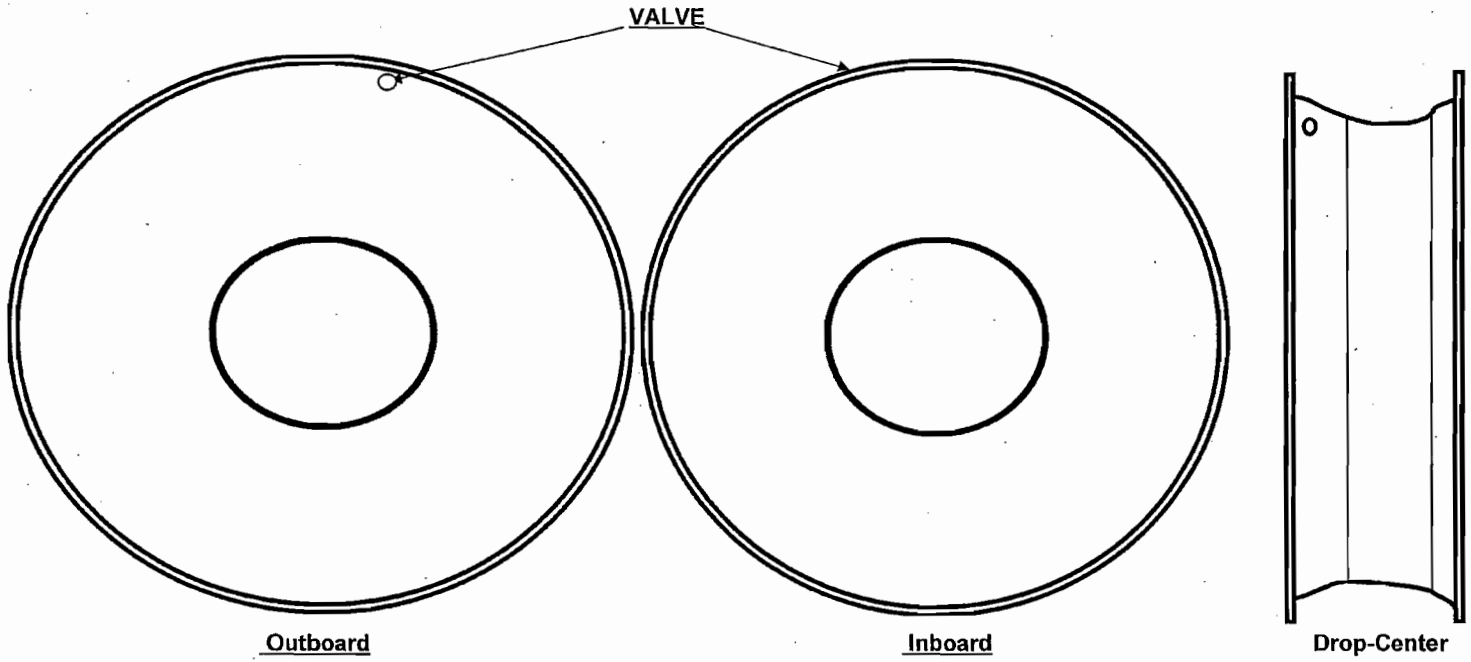
DATE	TIME	On Off	OP	CYCLES	MPH	LOAD	IN INF.	Station Id	Total Hours	Log Lgnd	REMARK
22-Aug-2007	16:00	OFF	BG	756639			65	14-3	74.28	INS	TEMPORARY STOP
22-Aug-2007	17:26	ON	BG	756639	10	5500	65	14-3	74.28	RST	RESUME
23-Aug-2007	7:21	OFF		1100000			65	14-3	88.20	END	TEST COMPLETE

Post Test Inspection: **Zaglo by:** JH **Photo by:** N/A
Test Results: NO VISUAL DEFECTS
Tires Used in Test: 4
Test Review Tech.: DLM

Laboratory Approval: _____ **Date:** 9/25/2007

Title: Technical Support Specialist

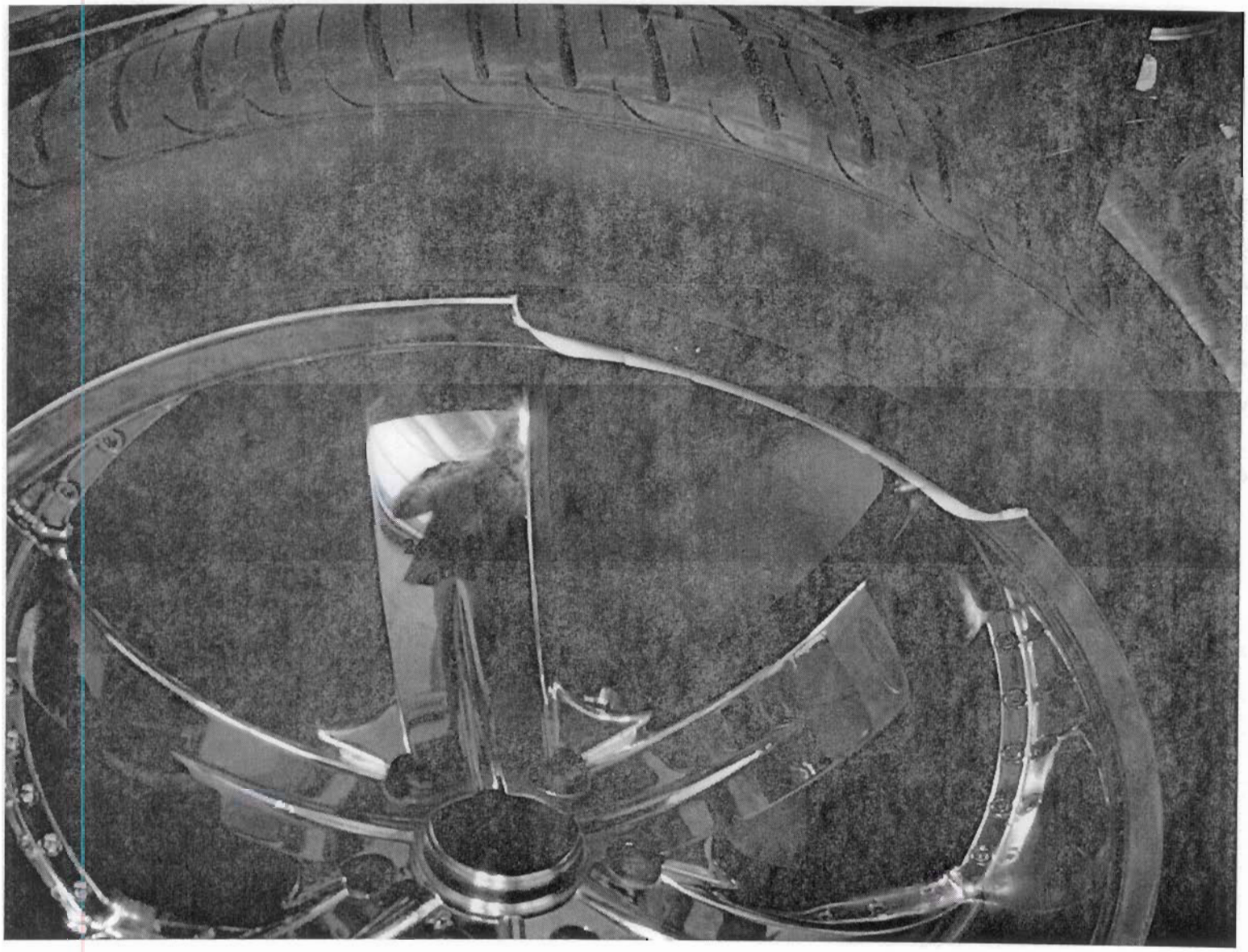
Rav No: 752-0001 Client I.D # Cycles.: 1.1 M.11

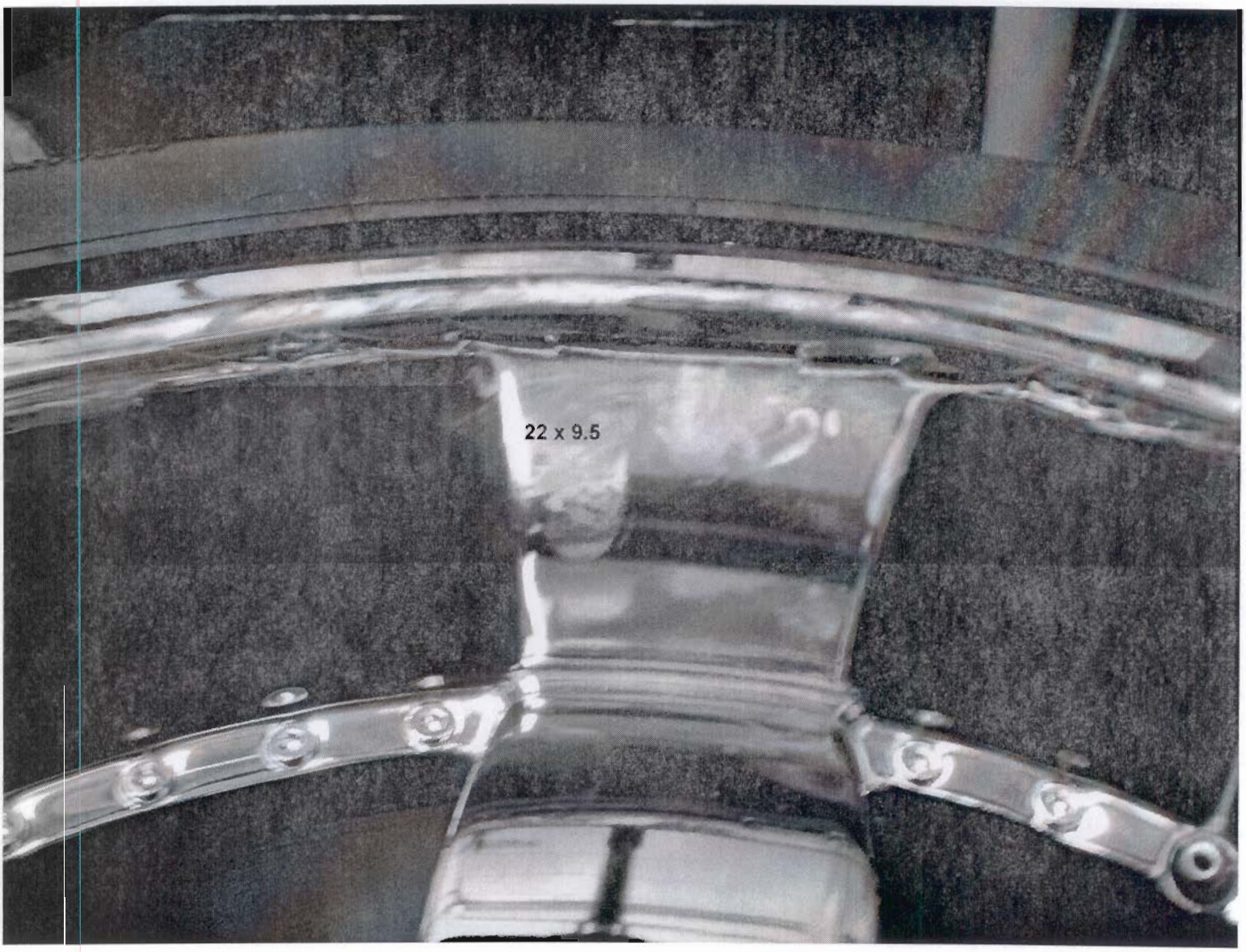


Remarks: NVD

Tech: JE Date: 8/23/2007

Rev.-7/1/04




22 x 9.5

2. g.

Tire Testing & Analysis
Vehicle Testing & Performance Evaluation
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Management Consulting & Market Research

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1150 NORTH FREEDOM STREET • RAVENNA, OHIO 44266
PH: 330/297-1495 FAX: 330/297-0038

RAVENNA DIVISION
Web: www.smithersscientific.com
E-mail: info@smithersmail.com

Impact

Wheel Description

Test No.:	808-2295-5112-35-73C	**Wheel Name:**	N/A
Client:	ECO WHEEL	**RAV #**	752-0006
Wheel Size:	22 x 9.5		
Bolt Pattern:	5 on 112mm		

Test Conditions

Tire Size:	P285/45R22	**Brand:**	MICHELIN	
PSI Cold:	50	**Torque:**	81	
Drop Hight:	9"	**Drop Weight:**	1715	IDEAL
			1714.1	ACTUAL

Test Results

Test Date:	10/5/2007	**PSI After Drop:**	48
			SPOKE
VELOSITY SENSOR HT.:	1.05		
IDEAL VELOSITY TIME:			13.15
ACTUAL VELOS. TIME:			13.37

CONTACTED AREA:

Test Results: SPOKE-CRACKED AT IMPACT AREA-AIR LOSS

Laboratory Approval:

"Creative Solutions Since 1925"

3.

Eco Wheel Warranty Claim

December 6, 2007

1) December 2006

Action Auto (Corona California) –
2410 Wardlow Rd., Suite 104, Corona, CA 92880

Purchased Estimated in October 2006. Returned to Eco Wheel on Approximately Nov. 2006, Wheel was returned to Kaite Wheel in China on Dec. 2006

Eco style (808 20x9 5x4.5) (PN 808-2090-5114-73-35) (Mfg Date Unknown)

One of the wheels broke in half. The customer said he hit a pothole but his tire was fine. He asked us to pay for his brake damage.

2) March 16, 2007

MTC Wheels (Chicago Illinois) –
1004 S. Northpoint Blvd., Waukegan, IL 60085

Purchased estimated in September 2006. Returned to Eco Wheel on Mar-16-07

Eco style (808 22x9.5 5x114) (PN 808-2295-5114-35-73C) (Mfg Date Mar-22-07)

The wheel was returned to Eco in March 2007 because wheel was cracked in half. We replaced the wheel with a new wheel. The customer was concerned about the safety of driving on the other three wheels.

3) March 30, 2007

Superior Tire (Glendale Arizona) –
4919 W. Colter, Glendale, AZ 85301

Purchased estimated in January 2007. Returned to Eco Wheel on Mar-30-07

Eco style (810 22x9.5 6x139) (PN 810-2295-6139-20-108C) (Mfg Date Mar-11-06).

The product was sold wholesale by Superior Tire to Jimmy's Tire and Wheel in Mesa, Arizona. The set was sold to a customer in March 2007 by the name of Ray Roma. One wheel came apart and broke in half. The wheel damaged a vehicle behind him on the 10 freeway in Phoenix, Arizona. The hood of the other vehicle that was hit by the broken wheel half had to be replaced. The cost was $733. We replaced the wheels and tire for the customer through our distributor, Superior Tire on May 17, 2007 and reimbursed them for their repair expense.

4) June 22, 2007

Gomez Tire (Moreno Valley) –
8158 Seirra Ave., Fontana, CA 92335

Purchased estimated in August 2006. Returned to eco Wheel on 6-22-07

Eco style (808 24x10 8x6.5) (PN 808-2410-8165-15-25) (Mfg Date Apr-04-06)

Gomez Tire reported one wheel that broke in half in March 2007. We replaced the wheel and purchased a replacement tire as well.

5) July 11, 2007

Salinas Tire (La Habra, California) –
131 S. Monte Vista, La Habra, CA 90631

Purchase Estimated in November 2005. Reported by Salinas to Eco Wheel on July-11-07

Eco Style (810 20x9 5x4.5) (PN 810-2090-5114-xx-xx) (Mfg Date not know. Waiting for wheel to be returned)

They sold the wheels to Gabe Britto in November 2006. The wheels were taken off in June 2007 because they had a 5-inch crack noticed while the consumer was purchasing new 20" tires. The wheel no longer holds air. Eco has replaced all four wheels to Salinas

6) July 12, 2007

Arandis Tire and Wheel (Wayne, MI) –

32606 Michigan Ave, Wayne, MI 48184

Reported to Eco Wheel on 7-12-07 that is has a wheel that has broken in half.
Eco style (808 20x9.0) (PN 808-2090-5120-20-73C) (Mfg Date not know. Waiting for wheel to be returned)

7) Oct 15, 2007

Canada:

Customer was driving his 2003 CHEVROLET AVALANCHE with the 810 VOXX CHROME 24 X 10 down burligton st in hamilton ontario canada he says he hit a small pot hole and the truck fell to the ground and all he seen was a peice of his wheel hit off the side of his truck and fling down the road. The tire size that is on the wheel is 305/35/24
Dealer: Dreamsport Performance and Car Audio
2415 barton st east hamilton ontario
905 662 6014 --- 905 662 9631 fax 905 662 7308

8) Estimate date of Spring 2006

Customer not know-
Echelon style (308 24x10 6x5.5) (PN 308-2410-6139-78-20) (Mfg Date Sept-06-05)

Wheel came out of old Echelon Warehouse. Source of return is unknown. Wheel has 8" crack