

DATA MUST BE ENTERED ELECTRONICALLY

AAR Manual of Standards and Recommended Practices Wheels and Axles

RP-633

MD-115 AAR FAILED WHEEL REPORT

DEFECTIVE WHEELS REMOVED, CAUSING DERAILMENTS OR LINE-OF-ROAD SETOUTS

Instructions: This report is to cover wheels that are removed for defects, represented by the following Why Made Codes 66, 68, 71, and 83 (see *Field Manual of AAR Interchange Rules*, Rule 41). All items should be completed. If the numbers or letters are illegible, draw a horizontal line in the box or boxes affected.

Note: Do not use the paper form to submit data to the AAR. You must use the "MD115" electronic form for submission. (<http://md115.aar.com/>)

DATE OF FAILURE OR REMOVAL Month Day Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		CAR INITIAL <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 8 9 10 11		KIND OF EQUIPMENT B—Box C—Cab F—Flat G—Gond. H—Hopper P—Pass. L—Cov. Hop. R—Refrig. S—Stock T—Tank X—Loco. O—Other		WHEEL DIAMETER 28 33 36 38 40		JOURNAL SIZE 09 10 11 12			
CAR NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 1 2 3 4 5 6 12 13 14 15 16 17		<input type="text"/>		<input type="text"/>		<input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/>			
FLANGE THICKNESS (Finger Gauge Reading) (Wide Flange) <input type="text"/> <input type="text"/> 23 24		RIM THICKNESS (Sixteenths) <input type="text"/> <input type="text"/> 25 26		TYPE DEFECT Rule 41F (Why Made Code) <input type="text"/> <input type="text"/> 27 28		CLASS OF HEAT TREATMENT <input type="text"/> <input type="text"/> 29 30		WHEEL DESIGN DESIGNATION Rule 41E <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 31 32 33 34		WHEEL MANUFACTURER <input type="text"/> <input type="text"/> 35 36	
DATE MANUFACTURED Month Year <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		WHEEL SERIAL NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 41 42 43 44 45 46 47 48				CAUSE OF FAILURE D—Derailment S—Setout N—Wheel removed before failure <input type="text"/> 50		REPORTING RAILROAD MARKS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 51 52 53 54		WHEEL TYPE 1W 2W MW <input type="text"/> <input type="text"/> W 55 56	
BRAKE SHOE STANDARD TO CAR <input type="text"/> 57		ANY SIGNS OF THE FOLLOWING ON THE WHEEL (Indicate Y for Yes, N for No) Brake Rigging Misalignment Stuck Brakes Body-Mounted Brakes <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 59 60 61				PLATE TYPE C—Curved S—Straight <input type="text"/> 62		LOCATION OF DEFECT R—Rim P—Plate H—Hub <input type="text"/> 63			
		DISCOLORATION (If wheel is discolored per FRA 215, 103(h), record number of inches of discoloration) Front <input type="text"/> <input type="text"/> Back <input type="text"/> <input type="text"/> 64 65 66 67				LOCATION ON CAR <input type="text"/> <input type="text"/> 68 69		NUMBER OF INCHES OF CRACK/BREAK IN RIM PLATE OR HUB <input type="text"/> <input type="text"/> 70 71			
Name of Reporting Road _____						Name of Chief Mechanical Officer _____					
Repair Point _____						Date _____					
Wheels must be retained for 45 Days						Complete and send one copy (either electronic or paper) to WABL Committee Manager Association of American Railroads 55000 DOT Road Pueblo CO 81001 Phone: 719-584-0670 Fax: 719-585-1895					

AAR Form MD-115 Failed Wheel Report—Rev. 06/2010
Paragraphs 3.1.2, 3.3.4, and 3.3.6

Fig. 4.73

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Explanation of wheel manufacturer's markings (Blocks 35–36)

A ^{a/}	Armco
AW	Scaw Metals (South Africa)
BV	B.V.V. (Formerly VSG) (Germany)
BW ^{a/}	Bethlehem
C ^{a/b/}	ABC Rail Calera (Formerly Abex)
CO	Datong ABC Castings Company LTD. (China)
CS	Comsteel
CW ^{a/}	U.S. Steel (Pittsburg)
CZ	Amsted Maxion (Formerly lochpe-maxion S.A.) (Brazil)
DW	Bonatrans a.s. (Formerly ZDB) (Czech Republic)
EV	Evrz Group (Nizhni Tagil, Russia)
EW ^{a/}	Edgewater Steel LTD.
FM ^{a/}	FM Fundiciones de Hierro y Acero (Mexico)
FW ^{a/}	Creusot-Loire (France)
G ^{a/}	U.S. Steel
GB ^{a/}	Griffin Wheel Company (Bensenville)
GC	Griffin Wheel Company (Columbus)
GI	Griffin Wheel Company (Kansas City)
GK	Griffin Wheel Company (Keokuk)
GL ^{a/}	Griffin Wheel Company (Colton)
GS	Griffin Wheel Company (Bessemer)
GT	Griffin Wheel Company (Winnipeg, CA)
GY ^{a/}	Griffin Wheel Company (Hyacinthe)
HW	Maanshan Iron and Steel Co. LTD. (PRC)
JW	Sumitomo Metal Industries LTD. (Japan)
KW ^{a/}	Klockner (Germany)
LW	Lucchini Sidermeccanica SpA (Formerly Gruppo Lucchini) (Italy)

MW	MWL (Formerly Mafersa) (Brazil)
NW	Niznedneprovssky Tube Rolling Plant (NTRP) (Ukraine)
pa [/]	British Steel (UK)
QW	Construcciones y Auxiliar de Ferrocarriles (CAF) (Spain)
RW	S. C. SMR S.A (Formerly SMR/MECANO) (Romania)
RZ	Tianrui Group Foundry Co. Ltd (China)
S ^{a/b/}	Abex ** (St. Louis)
SJ ^{b/}	Abex (Johnstown)
SO ^{b/}	ABC Rail (formerly Abex) (Calera)
SW	Standard Steel LLC.
TA	Xinyang Amsted Tonghe Wheels Company Ltd. (China)
T ^{a/b/}	Abex ** (Toledo)
TW	Adtranz (Formerly British Steel) (UK)
TY ^{c/} or TZ	Taiyuan Heavy Industry CO., LTD (PRC)
VK	Vyksa Steel Works (Russia)
VW	Valdunes (France)
WI	Rail Wheel Factory (Formerly Wheel and Axle Plant) (India)
ZW ^{b/}	Canadian Steel Wheel (Canada)

^{a/} No longer in production

^{b/} The letters C, S, or T directly precede the wheel serial number for wheels manufactured prior to about April 1978

^{c/} TY not used after October 2006

IMPLEMENTED 08/2012

Options for Class of Heat Treatment (Blocks 29–30)	Explanation of Brake Shoe Codes (Blocks 57–58)
A B C D L U—Untreated UI—Untreated (cast after 12/31/63 and before 1/1/70 by Southern (ABEX) only)	C—Composition shoe, high friction P—High phosphorus cast iron shoe S—Standard cast iron shoe U—Type of brake shoe unknown

Instructions for Completing AAR Wheel Failure Form MD-115	
Box 23–24	Enter steel wheel gauge narrow flange finger readings, "00" through "09," using "10" if reading greater than "09."
Box 27–28	Be careful to select proper Why Made code. See paragraphs 2.8.1 through 2.8.20.3 or the <i>Field Manual of the AAR Interchange Rules</i> , Rule 41, Section A, for applicable descriptions.
Box 29–30	Put first letter in box 29.
Box 31–34	Put first letter in box 31 and first number in box 33.
Box 35–36	Wheel manufacturer. Put first letter in box 35. Note that Griffin wheels have risers on front of plate and that (ABEX)* Southern wheels have raised letters on inside of plate. Standard is the only wrought manufacturer who shows the day of month the wheel was manufactured. Do not confuse brand with class.

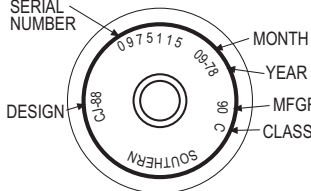
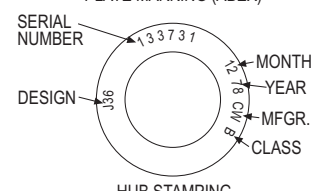
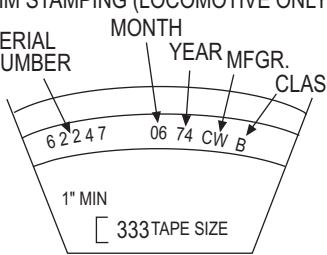
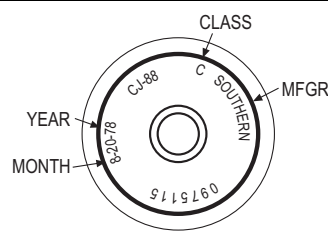
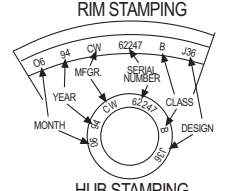


AAR Form MD-115 Failed Wheel Report—Rev. 06/2010 Paragraph 3.1.2, 3.3.4, and 3.3.6

Fig. 4.73 (Continued)

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<p>WHEEL MARKINGS, 1978 AND EARLIER</p>  <p>PLATE MARKING (ABEX)*</p>  <p>HUB STAMPING</p>	<p>Enter Markings in Boxes as Shown Below</p> <table border="1"> <tr> <td>Class</td> <td>Box 29-30</td> </tr> <tr> <td>Design</td> <td>Box 31-34</td> </tr> <tr> <td>Mfg.</td> <td>Box 35-36</td> </tr> <tr> <td>Month</td> <td>Box 37-38</td> </tr> <tr> <td>Year</td> <td>Box 39-40</td> </tr> <tr> <td>Serial No.</td> <td>Box 41-48</td> </tr> </table> <p>RIM STAMPING (LOCOMOTIVE ONLY)</p>  <p>1" MIN 333TAPE SIZE</p>	Class	Box 29-30	Design	Box 31-34	Mfg.	Box 35-36	Month	Box 37-38	Year	Box 39-40	Serial No.	Box 41-48	 <p>RIM STAMPING</p>  <p>HUB STAMPING</p>
Class	Box 29-30													
Design	Box 31-34													
Mfg.	Box 35-36													
Month	Box 37-38													
Year	Box 39-40													
Serial No.	Box 41-48													
 <p>LOW STRESS</p>  <p>HIGH STRESS</p>	<p>Measure, as shown to the left, with a steel wheel gauge or simplified wheel gauge. Check the appropriate plate type in box on reverse.</p> <p>*ABC Rail after July 1987. Trademark "Southern®" not used after August 1, 1980.</p>	<p>When wheel plates are marked as above, enter SO "for ABEX" (Southern) under manufacturer.</p>												

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Paragraphs 3.1.2, 3.3.4, and 3.3.6

Fig. 4.73 (Concluded)