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DANIEL H. STONE
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Mr. Stone is a Senior Consultant with Engineering Systems Inc. (ESI). He is a metallurgical engineer with over 50 years of engineering experience.

His areas of specialization are in development of superior rail, railway wheels, axles, castings, and tank car steels. His expertise includes railroad derailment investigation, railroad rolling stock, rail, turnout, truck component, coupler, and rail car structural failure analysis. Mr. Stone has had the opportunity to work within both the industrial and legal environments and has provided trial testimony on numerous occasions.

He is active in the development of industry standards for wheels, axles, truck bolster and side frame castings, tank car fatigue, and damage guidelines. Mr. Stone has conducted the above activities in Mauritania, Panama, India, Brazil, Chile, and the United Kingdom, as well as North America.

Areas of Specialization

Derailment Cause
Railcar Wheels, Axles, and Bearings
Railcar Truck Castings and Assemblies
Railway Rails and Track Components
Tank Car Steels and Damage Assessment
Failure Analysis of Railway Components
Transportation Accident Investigations
Development of Improved Railway Wheel, Rail and Steel Castings

Education

M.S., Metallurgical Engineering, University of California-Los Angeles, 1966
B.S., Metallurgical Engineering, University of Pittsburgh, 1962

Honors

1987 ASME Rail Transportation Best Paper Award
1995 ASME Rail Transportation Best Paper Award
Elected to Fellow Grade of ASME, 1987
Elected to International Heavy Haul Railroad Association "Haul of Fame", 2007
Keynote Speaker, 9th International Conference on Contact Mechanics and Wear of Rail/Wheel Systems

February 2018

Professional Affiliations/Honors

American Railway Engineering Association

Member

American Society of Mechanical Engineers

Fellow

Member - ASME Rail Transportation Division General Committee, 1992-1996

Technical Chairman - ASME Rail Transportation Division General Committee, 1996-1998

Chairman - ASME Rail Transportation Division, 1998-1999

Sixth International Wheelset Congress

Vice Chairman

Ninth International Wheelset Congress

Co-Chairman

International Wheelset Congress

Member – Committee of Direction

Second Heavy Haul Railway Congress

Member – Organizing Committee

Positions Held

Engineering Systems Inc., Omaha, Nebraska

Senior Consultant, 2013 – Present

Hunter Holiday Consulting, Pueblo, Colorado

Principal and CEO, 2002 – 2013

Transportation Technology Center, Inc., Pueblo, Colorado

Chief Metallurgist, 1995 – 2002

Association of American Railroads, Chicago, Illinois

Executive Director, 1988 – 1995

Director of Metallurgy, 1972 - 1988

U.S. Steel Corporation – Applied Research Laboratory, Monroeville, Pennsylvania

Research Engineer, 1965 – 1971

Atomics International, Division of North American Aviation, Canoga Park, California

Principal Investigator, 1962 – 1965

Mellon Institute, Pittsburgh, Pennsylvania

Metallurgical Assistant, 1961 - 1962

Patents

Railroad Car Wheel, No. 4, 145, 079, Lawrence P. Greenfield, George E. Novak and **Daniel H. Stone**, May 20, 1977.

Railway Wheels Resistant to Martensite Transformation, No. 6,387,191, **Daniel H. Stone** and Kevin J. Sawley, May 14, 2002.

Railroad Wheel Steels Having Improved Resistance To Rolling Contact, No. 7,559,999, Francisco Robles Hernandez and **Daniel H. Stone**, June 14, 2009.

Publications/Presentations

"Microcleanliness of Steel-A New Quantitative TV Rating Method", R. A. Rege, W. D. Forgeng, Jr., D. H. Stone and J. V. Alger, *Applications of Modern Metallographic Techniques*, ASTM Special Technical Publication 480, (Philadelphia, 1970) pp. 249-272.

"Acoustic Emission Monitoring of Shop and Field Weld of Rail", D. H. Stone and A. Green, *The Second Acoustic Emission Symposium*, Tokyo, 1974, pp. 8.1-8.26.

"Effect of Heat Treatment on The Strength and Fracture of Rail Steel", J. M. Hyzak, D. H. Stone and I. M. Bernstein, *AREA Bulletin*, Vol. 75, No. 648, June-July, 1974, pp. 776-778.

"Simulated Operating Stresses in 28-in.-Dia Wheels", G. E. Novak, L. P. Greenfield and D. H. Stone, ASME Paper 75-RT-10, April, 1975.

"Stress Analysis of Railway Wheels (A Review)", *Proceedings of the Conference on Computer Aided Stress Analysis in the Railroad Industry*, St. Louis, 1975, pp. 61-80.

"The Effects of Wheel Design and Service Environment on the State of Stress in 28-in. (().712 m) Diameter Freight Car Wheels", G. E. Novak, L. P. Greenfield and D. H. Stone, *Proceedings of the 5th International Wheelset Congress*, Tokyo, 1975, paper 16.

"Microstructural Control of Cleavage Fracture in Pearlitic Steels", I. M. Bernstein, Y. J. Park, G. K. Bouse, J. M. Hyzak and D. H. Stone, *Proceedings of the 4th International Conference on the Strength of Metals and Alloys*, Nancy, France, 1976, pp. 587-592.

"A Comparison of Charpy V-Notch, Dynamic Tear and Precracked Charpy Impact Transition-Temperature Curves for AAR Grades of Cast Steel", R. L. Sharkey and D. H. Stone, *Transactions of the ASME*, Vol. 98, Series B, No. 2, May, 1976, pp. 446-452.

"Fracture Properties of AAR Cast Steels", W. S. Pellini and D. H. Stone, *14th Annual Railroad Engineering Conference, "R & D in Railroadng: 1977"*, FRA/ORD-78/42, March, 1978, pp. 191-202.

"A Comparison of the Stress Levels in One- and Two-Wear 36-in. Diameter Wheels Under Simulated Service Loads", G. E. Novak and D. H. Stone, ASME Paper 77-RT-13, March, 1977.

"An Introduction to the Fracture Mechanics of Railroad Rails," *Railroad Track Mechanics*, A. D. Kerr, (editor), Pergamon (New York, 1978).

"Application of Fracture Control Principals to Freight Car Center Sill Structures," ASME Paper 78-RT-7, April, 1978.

"Failure Analysis of Rails from Facility for Accelerated Service Testing", Y. J. Park and D. H. Stone, *AREA Bulletin*, Vol. 79, No. 668, June-July, 1978, pp. 413-446.

"Metallographic Examination of Cracked Wheel Flanges from F. A. S. T.", S. Marich and D. H. Stone, *Proceedings of the 5th International Wheelset Congress*, Colorado Springs, 1978, paper 5-2.

Rail Steels-Developments, Processing, and Use, D. H. Stone and G. G. Knupp, editors, ASTM Special Technical Publication 644, (Philadelphia, 1978).

"The Effect of Mechanical Properties on The Performance of Railroad Rails", D. H. Stone and R. K. Steele, *Rail Steels-Developments, Processing, and Use*, D. H. Stone and G. G. Knupp, editors, ASTM STP 644, (Philadelphia, 1978) pp. 21-64.

"Role of Alloying and Microstructure on the Strength and Toughness of Experimental Rail Steels", G. K. Bouse, I. M. Bernstein and D. H. Stone, *Rail Steels-Developments, Processing, and Use*, D. H. Stone and G. G. Knupp, editors, ASTM STP 644, (Philadelphia, 1978) pp. 145-161.

"An Introduction to the Fracture Mechanics of Railroad Rail", *Railroad Track Mechanics & Technology*, A. D. Kerr, editor, Pergamon (Oxford, 1978) pp. 353-368.

"Probability Analysis of Rail Defect Data", P. M. Basuner, D. H. Stone, M. A. DeHerrera and K. W. Schoeneberg, *Proceedings of the Heavy Haul Railways Conference*, Perth, 1978. paper 308.

"Applications of Structural Integrity Technology in the Railroad Industry," (co-author), Proceedings of the ASME Materials Division Conference of Structural Integrity Technology, ASME (New York, 1979) p.22.

"Thermal Property Measurements in Brake Shoe Materials", D. H. Stone, D. H. Langendrost and E. A. Eldridge, *International Conference on Railway Braking*, I MECH E Conference Publication 1979-11, (London, 1979) pp. 111-114.

"Track Train Dynamics Contributions to Rail Metallurgy", *AREA Bulletin*, Vol. 80, No. 673, June-July, 1979, pp. 413-528-541.

The Manufacture and Railroad Trials with Chromium-Vanadium Steel for Heavy Duty Service", A. M. Sage, W. Hodgson, and D. H. Stone, *Vanadium in Rail Steels*, Vanitec (London, 1979) pp. 12-21.

"Deformation Behavior of Rail Steels", D. H. Stone, S. Marich and C. R. Rimnac, *Transportation Research Record 744*, TRB (Washington, 1980) pp. 16-21.

"Comparison of Rail Behavior 125-Ton and 100-Ton Cars, *AREA Bulletin*, Vol.81, No. 678, June-July, 1980, pp. 576-586.

"Cyclic Behavior of Class U Wheel Steel", Y. J. Park and D. H. Stone, ASME Paper 80-WA/RT-9, November 1980.

"High Strength Steels for Rail Transport", D. H. Stone and W. J. Harris, *Alloys for the Eighties*, AMAX (Ann Arbor, 1980) pp. 85-96.

"Corrosion of Bridge Deck Plates by Brine", J. Kobrinetz and D. H. Stone, *AREA Bulletin*, Vol. 83, No. 686, January-February, 1989, pp. 396-427.

"Increasing Demands on the Serviceability of Rail Steels", *Canadian Metallurgical Quarterly*, Vol. 21, No. 1, January-March, 1982, pp. 17-24.

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"Impact of Car Loads on Rail Defect Occurrences" R. A. Armstrong, T. R. Wells, D. H. Stone and A. M. Zarembski, *Second International Heavy Haul Railways Conference*, Colorado Springs, 1982, paper 82-HH-14.

"On the Fracture and Wear Characteristics of Chromium-Molybdenum Bainitic Steel", H. Ghonem, J. Kalousek and D. H. Stone, *Specialty Steels and Hard Materials*, N. R. Combs and J. B. Clark, editors, Pergamon (Oxford, 1982) pp. 259-266.

"Influence of Microstructure on Fatigue Crack Growth Of Pearlitic Steels", G. T. Grey, A. W. Thompson, J. C. Williams and D. H. Stone, *Fatigue Thresholds*, Vol. I, J. Backlund, A. F. Bloom and C. J. Beavers, editors, EMAS (Worley, U. K., 1982) pp.345-362.

"Cyclic Behavior of Class A and B Heat-Treated Wheel Steels", Y. J. Park and D. H. Stone, *The General Problem of Rolling Contact*, AMD-Vol. 40, 1980 (New York, 1985) pp. 157-167.

"Problems with Residual Stress in the Railroad Industry", *Residual Stress and Stress Relaxation*, E. Kula and V. Weis, editors, Plenum Press (New York, 1982) pp. 341-354.

"Residual Stress Calculations on 33 Inch (838 mm) Diameter one –Wear Freight Car Wheels Under Simulated Unreleased Hand Brake Conditions" M. R. Johnson, R. R. Robinson, A. J. Opinsky and D. H. Stone, ASME Paper 82-WA/RT-11, November, 1982.

"The Effect of Increasing Axle Loads on Rail Fatigue Life", A. M. Zarembski, D. H. Stone, T. M. Wells and R. A. Armstrong, *Rail Technology*, C. O. Frederick and D. J. Round, editors, Frederick and Rownd (Nottingham, 1982) pp. 151-162.

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"Aspects of Plastic Deformation and Fatigue Damage in Pearlitic Rail Steel," E. E. Laufer, H. Ghonem, J. Kalousek and D. H. Stone, *Proceedings of the Second International Heavy Haul Conference*, Colorado Springs, September, 1982, Paper 82-HH-31.

"A Process for the Continuous Heat-Treatment of Rails," D. H. Stone and F. J. Boyle, *AREA Bulletin*, Vol. 83, No. 688, June-July, 1982, pp. 620-649.

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"Cyclic Deformation of Pearlitic Eutectoid Rail Steel," (co-author), *Metallurgical Transactions*, Vol. 13A, No. 11, November, 1982, pp. 2035-2047.

Effect of Increasing Axle Loads on Rail Fatigue Life," A. M. Zarembski, D. H. Stone, T. R. Wells and R. A. Armstrong, *Rail Technology*, C.O. Frederick and D.J. Round, (editors and publishers), Derby, England, 1983.

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"Wheel Failures Due to Brake Heating – Experience and Solutions, *Proceedings of the 8th International Wheelset Congress*, Madrid, 1985 paper V.4.

"Measurement Approaches for Determining Thermally-Induced Residual Stresses in Railroad Wheels", B. R. Rajkumar and D. H. Stone, ASME Paper 85-WA/RT-16, November, 1985.

"Calculation of Residual Stresses in Wheels from Saw Cut Displacement Data", M. R. Johnson, R. R. Robinson, A. J. Opinsky, M. W. Joerms and D. H. Stone, ASME Paper 85-WA/RT-17, November, 1985.

"Guidelines for Fracture Mechanics Analysis of Pressure Tank Car Structural Integrity Factors", D. H. Stone and W. S. Pellini, ASME Paper 86-PVP-16, July 1986.

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"North American Wheel Failure Experience", D. H. Stone, W. S. Pellini and W. J. Harris, Third *International Heavy Haul Railways Conference*, Vancouver, 1986, pp. 205-213.

"A Study of Residual Stresses in Railroad Wheels with Systematic Drag Braking on the Roll Dynamics Unit", B. R. Rajkumar, G. J. Moyer, D. H. Stone and Clifford Gannett, ASME Paper 85-WA/RT-2, December, 1986.

"The Thermal Fatigue Behavior of Near-Eutectoid Steel," (co-author), *Materials Science and Engineering*, Vol. 92, 1987.

"Effect of Brake Shoe Position on the Development of Residual Stress in Freight Car Wheels as a Result of Simulated Drag Braking", J. Opinsky, M. W. Joerms, D. H. Stone, and M. R. Johnson, ASME Paper 86-WA/RT-3, December, 1986.

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"An Interpretive Review of Wheel Failure Performance with Respect to Design and Heat Treatment", *Proceedings of the 1988 ASME-IEEE Joint Railroad Conference*, ASME (New York, 1988) pp. 43-54.

"A Brake Severity Index for Predicting the Onset of Stress Reversal in Railroad Wheels", G. J. Moyer, B. R. Rajkumar and, D. H. Stone, ASME Paper 88-WA/RT-4, November, 1988.

"Effect of Heat Treatment on Mechanical Properties of Railcar Couplers", A. B. Tanzer and D. H. Stone, *Heat Treatment and Surface Engineering*, G. Krauss, editor, ASM International (Metals Park, O, 1988) pp. 251-256.

"Application of HSLA Steels for Construction of Railroad Tank Cars", D. H. Stone and W. S. Pellini, *Microalloyed HSLA Steels*, ASM International (Metals Park, O, 1988) pp. 411-420.

"Theoretical and Experimental Determination of Heat Flow into a Wheel During Bearing Overheating", G. F. Carpenter, M. W. Joerms, K. L. Hawthorne, D. H. Stone and W. C. Sneed, *Proceedings of the IEEE-ASME Joint Railroad Conference*, 1989 ASME (New York, 1989) pp. 69-72.

"Wheel Shelling and Spalling-An Interpretive Review", D. H. Stone and G. J. Moyer, *Rail Transportation-1989*, 1989 ASME (New York, 1989) pp. 19-32.

"Stresses Due to Nonaxisymmetric Temperature Distributions in Railway Wheels", M. W. Joerms, G. F. Carpenter, D. H. Stone and B. R. Rajkumar, *Proceedings of the ASME-IEEE Joint Rail Conference*, 1990 ASME (New York, 1989) pp.135-138.

"Prediction of Wheel Shelling on 263,000-, 287,000- and 315,000-Unit Train Cars, *Proceedings of the AREA-ASME Joint Rail Conference*, 1990 ASME (New York, 1989) pp.21-30.

"Journal Roller Bearing Defect Populations", (co-author) *Proceedings of the Fourth International Heavy Haul Conference*, National Conference Publication No. 89/12, Institution of Engineers, Australia (Barton, ACT, 1989) pp. 491-495.

"Implementation of Low-Cycle Fatigue Methodology in a Railroad Environment", V. Sharma, S. K. Punwani and D. H. Stone, *Proceedings of the AREA-ASME Joint Rail Conference*, 1990 ASME (New York, 1989) pp. 115-123.

"An Analysis of Thermal Contributions to Wheel Shelling", G. J. Moyer and D. H. Stone, *Mechanics and Fatigue in Wheel/Rail Contact*, S. L. Grassie, editor, Elsevier Science Publishing (Amsterdam, 1990) pp. 117-138.

"An Interpretive Review of Wheel Shelling and Spalling", D. H. Stone, G. J. Moyer and T. S. Guins, *Rail Transportation-1992*, RTD Vol. 5, 1989 ASME (New York, 1992) pp. 97-104.

"A Theoretical and Metallurgical Model of Martensite Formation and Tread Spalling During Wheel Skid", H. C. Iwand, D. H. Stone and G. J. Moyer, *Rail Transportation-1992*, RTD Vol. 5, 1992 ASME (New York, 1992) pp. 105-116.

"Unintended Braking Due to Brake Beam/Guide Slot Stiction", G. J. Moyer, K. E. Davis, B. R. Rajkumar, S. M. Belpert, D. H. Stone, F. G. Calson and E. E. Hughes, *Rail Transportation-1992*, RTD Vol. 5, 1992 ASME (New York, 1992) pp. 135-144.

"Detecting Wheel Tread Surface Anomalies", S. Kalay, A. Tajaddini and D. H. Stone, *Rail Transportation-1992*, RTD Vol. 5, 1992 ASME (New York, 1992) pp. 175-182.

"Theoretical and Experimental Study of Wheel Spalling in Heavy Haul Hopper Cars", D. H. Stone, B. R. Rajkumar, S. M. Belpert, K. L. Hawthorne and G. J. Moyer, *Proceedings of the 10th International Wheelset Congress*, Sydney, 1992, pp.1-8.

"Statistical Behavior of Wheel Impact Load Detectors to Various Wheel Defects", D. H. Stone, S. F. Kalay and A. Tajaddini, *Proceedings of the 10th International Wheelset Congress*, Sydney, 1992, pp. 9-14.

"Rail Developments and Requirements for Heavy Haul Railways", *Rail Quality and Maintenance for Modern Railway Operation*, J. J. Kalker, et al., editors, Kluwer, (Dordrecht, Netherlands, 1993) pp.15-28.

"Reliability of North American Freight Car Brake Systems and the Impact of Wheel Thermal Damage", D. H. Stone and F. G. Carlson, *Engineering Integrity in Rail Transportation Systems*, J. M. Tunna, editor, EMAS (Worley, U. K., 1993) pp. 71-80.

"Performance Assessment of Wheel Impact Load Detectors", S. F. Kalay, D. H. Stone and A. J. Reinschmidt, *Engineering Integrity in Rail Transportation Systems*, J. M. Tunna, editor, EMAS (Worley, U. K., 1993) pp.165-184.

"Effect of High Horsepower Grade Braking on AAR High Friction Composition Shoes", G. F. Carpenter, D. H. Stone and D. G. Blaine, *Proceedings of the 86th Annual Convention and Technical Conference of the Air Brake Association*, Chicago, 1994, pp.113-134.

"Wheel Thermal Damage Limits" D. H. Stone and G. F. Carpenter, *Proceedings of the ASME-IEEE Joint Rail Conference*, ASME RTD-Vol. 7 1994 ASME (New York, 1994) pp. 57-64.

"Effect of Wheel Diameter on High-Adhesion Locomotive Wheel Tread Thermo-Mechanical Stresses", *Proceedings of the 1995 IEEE-ASME Joint Rail Conference*, ASME RTD-Vol. 9, G. J. Moyer and D. H. Stone, ASME (New York, 1994) pp. 119-128.

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"Potential Thermo-Mechanical Wheel Tread Damage Mechanisms in High Traction Locomotives", G. J. Moyer, D. H. Stone and A. Alp, *Proceedings of the 11th International Wheelset Congress, Paris*, 1995, paper 1.a.

"European and American Wheels and Their Resistance to Thermal Damage", K. Osuch, D. H. Stone and O. Orringer, *Proceedings of the 11th International Wheelset Congress, Paris*, 1995, paper 3.d.

"High Adhesion Locomotive Thermal-Mechanical Rail Surface Loading" G. J. Moyer, and D. H. Stone, *AREA Bulletin*, Vol. 97, No. 756, May, 1996, pp. 407-412.

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"Progress in the Reduction of Wheel Spalling", J. Sun, K. J. Sawley and D. H. Stone, *Proceedings of the 12th International Wheelset Congress*, Qingdao, 1998, paper 1.a.

"Effect of Brake-System Components on Wheel Spalling", D. H. Stone, F. G. Carlson and C. Bachhuber, *Proceedings of the 1999 ASME-IEEE Joint Rail Conference*, D. H. Stone and D. Huluza, editors ASME (New York, 1999) pp. 177-183.

"The Effects of Discontinuity Size on the Initiation of Shattered Rim Defects", D. H. Stone and G. E. Dahlman, *Rail Transportation-1997*, RTD Vol.19, ASME (New York, 1999) pp. 7-14.

"Wheel Flat and Out-of-Round Formation and Growth", D. H. Stone, J. Kristan and T. W. Snyder, *Proceedings of the 2003 IEEE-ASME Joint Rail Conference*, RTD Vol.25, ASME (New York, 1999) pp. 143-148.

"Wheel/Rail Materials and Interaction: North American Heavy Haul Practices" D. H. Stone, K. Sawley, D. Kelly and W. Schust. *Wheel/Rail Interface*, IHHA (Moscow, 1999), pp. 165-168.

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"Shattered Rim Defects in Wheels", *Wheels and Axles, Cost Effective Engineering*, I MECH E Seminar Publication 2000-20, (London, 2000) pp.75-84.

"TTCI Leads Research to Cut Premature Wheel Scrapping", *Railway Gazette International*, September, 2000, pp.593-598.

"Effect of Wheel Impact Loading on Shattered Rims", D. H. Stone, S. F. Kalay and C. Lonsdale, *Proceedings of the 13th International Wheelset Congress*, (Rome, 2001).

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"North American Axle Failure Experience", C. Lonsdale and D. H. Stone, *International Seminar on Railway Axles*, I MECH E (London, 2003).

"Railroad Wheel Alloy Developed to Inhibit Spall Formation as a Result of Wheel Slide", J. Kristan and D. H. Stone, *Proceedings of the 14th International Wheelset Congress*, (Orlando, 2004) Paper 2.3.

"Effect of Wheel Loading on the Occurrence of Vertical Split Rim Wheel Failures", J. Kristan, D. H. Stone and J. Elkins, *Proceedings of IMECHE 2004*, ASME (New York, 2004) Paper IMECE2004-59049.

"Development of a Passenger Wheel Standard", J. Gordon and D. H. Stone, *Proceedings of IMECHE 2005*, ASME (New York, 2005) Paper IMECE2005-82790.

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"Determination of the Energy Required to Reverse the Residual Stresses in the Rim of a Coach Wheel", A. Bhattacharyya, B. Roy, R. S Tewari, D. H. Stone, Jon Hannafious and B. R. Rajkumar, *Proceedings of the 15th International Wheelset Congress*, (Prague, 2007).

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"An Interpretive Review of Wheel Shelling", *Proceedings of RDTF2008*, ASME (New York, 2008) Paper RDTF2008-74028.

"Effect of Residual Stress, Temperature and Adhesion on Wheel Surface Fatigue Cracking", D. H. Stone and S. M. Cummings, *Proceedings of RDTF2008*, ASME (New York, 2008) Paper RDTF2008-74029.

"Development and Evaluation of Advanced Wheel Steels to Prevent Wheel Failures in North American Heavy Haul Operating Environment", F. C. Robles-Hernandez, S. Kalay, D. H. Stone and S. Cummings, *Proceedings of the 9th International Heavy Haul Conference*, Shanghai, June, 2009.

"Rails", Dan Stone, Joe LoPresti, Steve Marich, Sergie Zhakarov and Anatoly Naumov, *Guidelines to Best Practices for Heavy Haul Operations – Infrastructure, Construction and Maintenance Issues*, IHHA (Virginia Beach, 2009) Chapter 3.2.

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"Vertical Split Rim Wheels", Daniel Stone, Steven Dedmon, James Pilch and Scott Cummings, *Proceedings of the 16th International Wheelset Congress*, (Cape Town, 2010) paper 2.3.

"Development of Tread Cracks in Class C Wheels". S. Dedmon, H. Guzel, and D. H. Stone, *Proceedings of the 2011 Heavy Haul Conference*, Calgary, June 2011.

"Fatigue Fretting of Axles", Daniel H. Stone, *Proceedings of RDTF2011*, ASME (New York, 2011) Paper RDTF2011-67007.

"Rolling Contact Fatigue Origins of Wheel Failures in Heavy Haul Service", *Proceedings of the 9th International Conference on Contact Mechanics and Wear of Rail/Wheel Systems*, Chengdu, August, 2012, paper 2.1, Conference Keynote Paper.

"A Neural Network Analysis of Vertical Split Rim Wheel Failures", Abe Meddah and Daniel H. Stone, *Proceedings of the 17th International Wheelset Congress*, (Kiev, 2013).

"Effect of Deformation on Mechanical Properties and Shakedown of Wheel Steels", S. Dedmon, D. H. Stone and T. Fujimura, *Proceedings of JRC2014*, ASME (New York, 2014) Paper JRC2014-3813.

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