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Wichelhaus -- The Application of Energy-Based Fuel Formulae to Increase the Efficiency Relevance and Reduce the CO2 Emissions of Motor Sport (2008-01-2953) / J.W.G. Turner, R.J. Pearson -- High Power Density Motor for Racing Use (2011-39-7221) / Tamotsu Kawamura, Hirofumi Atarashi, Takehiro Miyoshi -- The Development of a Low Viscosity, Highly Efficient Lubricant for Sport Motorcycle Applications (2011-32-0513) / Gianluigi Zoli, Matthew Symonds, May Turner, Ieuan Adams, Nick Solomon, Mark Leonard, Cliff Newman -- An Improvement of a Small Displacement Engine's Efficiency with a Super Charging System (2011-32-0571) / Changjoo Ahn, Takashi Suzuki, Yasuhumi Oguri, Hiroki Toshitani, Tatsuyoshi Nakahuku, Yusuke Nakano -- The Effects of Intake Plenum Volume on the Performance of a Small Normally Aspirated Restricted Engine (2008-01-3007) / L.J. Hamilton, J.E. Lee -- Design and Development of a Turbocharged E85 Engine for Formula SAE Racing (2008-01-1774) / Jason P. Moscetti, Bryan Gilroy Smith, Volker Sick -- Optimizing the Design of the Air Flow Orifice or Restrictor for Race Car Applications (2007-01-3553) / Harry C. Watson, Andrew Gauci, Faez Yousuff, Alberto Boretti -- A Theoretical and Experimental Study of Resonance in a High Performance Engine Intake System: Part I (2006-01-3653) / S. Brennan, R.J. Kee, R.G. Kenny, R. Fleck, J.A. Gaynor, B. Fleck -- Horsepower Retention by ISF (Isotropic Superfinishing) of Automotive Racing Components (2004-01-3511) / William P. Nebiolo.

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Sommario/riassunto

This compendium is an update to two best-selling editions published by SAE International in 1995 and 2003. Editor Doug Fehan has assembled a collection of technical papers from the SAE archive that will inspire readers to use race engine development as an important tool in the future of transportation. He focuses on several topics that are important to future race engine design: electrification, materials and processes, and improved technology.

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