

ABOUT THE AUTHOR

Manual 37 Fuels and Lubricants Handbook: Technology, properties, Performance, and Testing

GEORGE E. TOTTEN

Until recently, Dr. Totten was a Senior Research Scientist at Union Carbide Corporation, where he was responsible for their R&D programs in metalworking quenchants, hydraulic fluids, and exploratory research programs in lubrication fundamentals. Currently, Dr. Totten is president of G.R. Totten & Associates, LLC, a research, sales, and consulting firm specializing in Thermal Processing and Industrial Lubrication problems and equipment supply.

Dr. Totten is the section chairman of ASTM D02 L.06 on Non-Lubricating Oils; D02 N.06 on Fire-Resistant Hydraulic Fluids; and co-chairman of ASTM D02 N.07.3 Task Group on Piston Pump Testing specification development. In addition, he is vice-chairman of the ASTM Committee on Publications.

Dr. Totten has published over 350 patents, technical papers, and books including : *Handbook of Quenchants and Quenching Technology*, *Steel Heat Treating Handbook*, *Handbook of Residual Stress and Deformation of Steel*, *Fire Resistance of Industrial Fluids (ASTM STP 1284)*, *Tribology of Hydraulic Pump Testing (ASTM STP 1310)*, *Handbook of Hydraulic Fluid Technology and Hydraulic Failure Analysis: Fluids, Components and System Effects (ASTM STP 1339)*, *Bench Testing of the Lubrication and Wear Properties of Industrial Fluids Used in Machinery Applications (ASTM STP 2404)*, and the *Handbook of Aluminum: Physical Metallurgy and Processes (Vols. 1 and 2)*.

Dr. Totten received his B.S. and M.S. degrees in chemistry from Fairleigh Dickinson University in New Jersey and his Ph.D. in physical organic chemistry from New York University. Dr. Totten is president of the International Federation for Heat Treatment and Surface Engineering (IFHTSE), a fellow of ASM International and SAE International, and is chairman of the SAE FCIM (Farm, Construction and Industrial Machinery) Board.

STEVEN R. WESTBROOK

At the Southwest Research Institute, Mr. Westbrook has been involved in standardized and non-standardized testing of petroleum fuels and lubricants. He has extensive experience in distillate fuel quality, fuel stability testing, laboratory test development, technical liaison in fuel-related field problems, and development of field tests for diesel fuel stability and cleanliness. He has conducted research on fuel stability additives, diesel fuel-degradation reaction mechanisms, and the effects of fuel container surfaces on fuel quality. He also has extensive experience with fuels from alternative sources, especially for diesel engine applications.

