



3rd Quarter, 2009

Welcome to the Intertek Automotive Update newsletter. The Update is a forum for news, happenings and information in the world of Automotive Testing and Engineering. We welcome our readers' input and participation in this forum. If you have questions to be addressed in a future issue, or article suggestions, please send inquiries to icenter@intertek.com.

Intertek Acquires Sagentia Catella AB; Strengthens Battery and Energy Storage Testing Capabilities For Energy Services Markets

In May, 2009, Intertek acquired Sagentia Catella AB, a globally renowned laboratory and consultancy for the energy storage industry, including batteries, super capacitors and fuel cells for the automotive, wind, solar and telecommunications markets, among others.

Sagentia Catella brings to Intertek more than 50 years of experience in the energy storage industry. Originally established as part of the National Defense Research Institute of Sweden (FOA), the business later became known as Sagentia Catella as part of the British technology-consulting group Sagentia, serving global customers who were developing more efficient energy storage technologies, and more reliable and environmentally friendly products.

Working with the world's leading automotive, wind and photovoltaic manufacturers and suppliers, Intertek currently provides product safety and performance testing, and market approvals through its network of testing centers in Asia, North America and Europe.

"The addition of Sagentia Catella is a strategic bolt on which will significantly benefit our customers in the automotive and renewable energy businesses," said Gregg Tiemann, President, Intertek Commercial and Electrical Division. "From fuel cells to finished products, the ability to provide single-point R&D and market entry support is vitally important to support these industries' needs for rapid product development and market deployment."

For more information on battery testing capabilities, please contact icenter@intertek.com.

New Whitepaper: Failure Analysis-The CSI of Testing



Much like the investigative techniques you see on TV, Failure Analysis (FA) can be used to uncover product issues or provide solutions to a problem. This whitepaper provides a rare opportunity to see an actual FA test report and the types of information these reports typically contain. You'll learn about a unique failure/ metallurgical analysis project on a 100+ year old gun to solve the mystery of the missing serial number. Intertek's Chief Metallurgist was able to recover the serial number using a combination of FA & metallurgy techniques to prove the gun was, indeed an antique.

JASO Friction Capabilities Added at Intertek Automotive Research

Intertek Automotive Research in San Antonio, TX, has added JASO M348 and JASO T904 Friction test capabilities. These SAE #2 Friction tests are conducted according to the Japanese Automobile Standards in support of JASO M315 - Automatic Transmission Fluid Standard, and JASO T903 - Motorcycle Four-Cycle Oil Standard.



Friction Test Stand at Intertek AR

Intertek has extensive experience with SAE #2 Friction testing. We offer standardized testing for transmission fluid qualification - DEXRON®, MERCON®, and Allison Heavy Duty – as well as customized test schedules for lubricant frictional performance evaluation. In addition to lubricant evaluation, the SAE #2 test stands can be configured to evaluate clutch material frictional characteristics. Tests can be customized through a combination of cycle time, number of cycles, clutch apply pressure, inertial load & rotational speed.

For more information on JASO or other SAE #2 Friction testing, please contact Kevin Rettmann at 210-706-1546, or email kevin.rettmann@intertek.com.

Axle Efficiency Testing Development

Intertek PARC and GM have developed over the past three years a new standard for measuring axle and axle oil efficiencies for the automotive industry. Increases in efficiency result in improved vehicle fuel consumption. Small changes are significant due to the large number of vehicles in use. Efficiency measurements show sliding losses in hypoid gear surface, bearing losses and churning losses of oil. The testing offers extremely accurate comparisons of axles and oils. This method is a first in steady state temperature control of axle temperature and gives clients the opportunity to review all efficiency data at the same temperatures and to make efficiency comparisons without having to factor temperature variables into their evaluations. This test has proven so repeatable that GM has adopted it for their axle standard and has agreed to release the document for development into a SAE standard.

Axle efficiency tests are run in a "T" arrangement such that an electric motor drives the input shaft and two electric absorbers load the output shafts. The dynamometer system imposes torques and

[Download](#) the Whitepaper by **August 28th** and you'll be entered to win a **free 4-step Failure Analysis (a \$2500 value!)**. The 4-Step Failure Analysis offers a preliminary analysis of your product, potential failure information and a road map for further evaluation. [Download](#) now!

ISO/TS 16949:2009 Released

ISO/TS 16949:2009, *Quality management systems – Particular requirements for the application of ISO 9001:2008 for automotive production and relevant service part organizations*, was released in English on 15 June 2009. Compared with ISO/TS 16949:2002, no new or changed requirements have been introduced; the modifications incorporate ISO 9001:2008 & improve consistency with ISO 14001:2004.

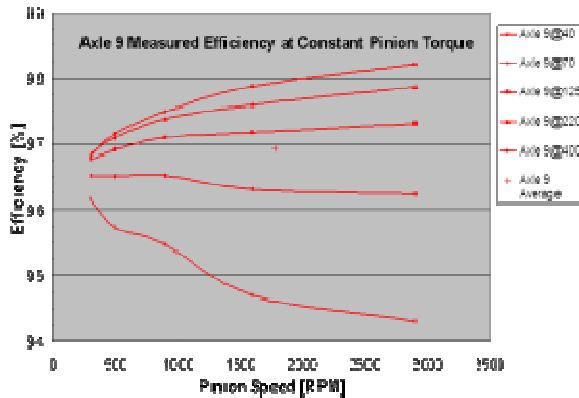
All initial or re-certifications performed after 15 October 2009 must be to ISO/TS 16949:2009, regardless of language. Any initial or re-certification audit performed between 15 June 2009 and 14 October 2009 may be based on ISO/TS 16949:2009 at the discretion of the Certification Body and the client.

Current certifications to ISO/TS 16949:2002 remain valid until the next re-certification. A revised certificate may be issued at the discretion of the Certification Body and the client, only after the next surveillance audit has been conducted to ISO/TS 16949:2009. The revised certificate will have the same issue and expiration dates as the previous certificate, as well as the same IATF number, since it is not considered to be an "upgrade."

Any questions related to ISO/TS 16949 may be directed to Vickie.Betras@intertek.com.

speeds approximating those found during the EPA Federal Test Procedure. Axle and axle oil tests are run on axles that are broken in.

Intertek PARC continues to refine the test procedure and is offering this test to the industry. GM has made this test their standard and it is being evaluated by oil suppliers and OEMs and their suppliers. Oil test data will be presented by Intertek PARC at the next SAE axle efficiency meeting.



Test Fixturing Capabilities

In addition to comprehensive testing services, Intertek has extensive fixturing capabilities. We routinely design and fabricate fixtures ranging from simple clamp down to complex electromechanical cycling durability containing multiple test samples.

These fixtures may be used simply to hold test samples in some pre-defined 'in-service' configuration. For automotive testing, this is usually in the 'in-car' position. For one of the many forms of Accelerated Stress Testing (AST), such as Failure Mode Verification Testing (FMVT®), Highly Accelerated Life Testing (HALT©) or Highly Accelerated Stress Testing (HASS©) testing, additional functionality must be built into the fixturing. This includes the application of additional stress sources, durability (fatigue) testing, or simple basic operational performance. This could be some combination of



Front engine cover vibration fixture

Intertek works with customers to enhance fixture functionality, test efficiency.

Capabilities include cutting (saw, oxy-acetylene, plasma arc), grinding, machining (mill,

Fogging Testing Helps Ensure Safe Driving

Identification of the fogging behavior of new automotive materials is an important issue in product development. Fogging testing is a part of quality assessment and control for these materials.

Fogging happens when automotive interior materials are heated, and volatilizable components evaporate and congeal on the windshield, which looks like a light scattering film (fog). This will diminish the driver's view and could influence safe driving!



Fogging testing performance also checks the presence of possible harmful volatile components in the automotive interior materials. Volatilizing into the ambient air within the car can cause harmful exposure to passengers. Intertek offers testing to OEM methods such as PV 3015 or other client-specific methods.

Lighting Consulting/Testing

Intertek can help bring your lighting products to market with expert consulting regarding the compliance of your product to applicable Safety and Performance Standards. In today's market, there are many opportunities to cost effectively source lighting components from manufacturing sites around the world, but there are no guarantees that those products meet the safety and

lathe) and welding (MIG, TIG) and soldering / brazing. Materials used are steel, stainless steel, aluminum, copper, brass, sheet and structural and cast.

Solid Works CAD software is used for design, and Algor Finite Element Analysis (FEA) is used to evaluate a fixture design (ultimate strength, vibration characteristics, etc.), pending the specific application and client request. CAD allows us the flexibility to design test fixtures from prototype data, minimizing time to test. For more information, contact icenter@intertek.com

Diversify Your Business - And Your Management System

If you're starting to diversify into the Medical or Aerospace industries, your existing ISO/TS 16949 certified management system can help you meet the QMS requirements that those industries mandate. To help you assess the differences and transition your QMS, Intertek will be conducting informative seminars in Detroit and Toronto during the month of September. Be on the lookout for an email invitation with further information. If you have any questions in the meantime, please send us an email at intertek-sc@intertek.com.

performance standards that are expected and required in the United States and Canada. As an importer of record in the U.S. and Canada, it is the importer's responsibility to ensure that products sold into these markets comply with applicable requirements. We can assist our client's not only with sorting through each standard, but we can also test to those standards to validate a wide variety of lighting products.

Intertek can review design data, proposed optical assemblies, light sources and lamp markings to identify areas that may need improvement prior to bringing the product to the market. We can also evaluate lighting products on a fully assembled vehicle or other product to help our clients comply with visibility and spacing requirements. We have the resources to handle all types and sizes of products and can identify issues before they become a production problem. Intertek has tested a variety of Incandescent, Halogen, Fluorescent and LED products and has insight into the technical benefits of each type of lighting technology. Contact icenter@intertek.com for info.

About Intertek

Intertek Group plc (FTSE: ITRK) is a leading international provider of quality and safety services to a wide range of global and local industries. Partnership with Intertek brings increased value to customers' products and processes, ultimately supporting their success in the global market place. Intertek has the experience, expertise, resources and global reach to support its customers through their network of over 23,000 people in more than 100 countries around the world. www.intertek.com

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