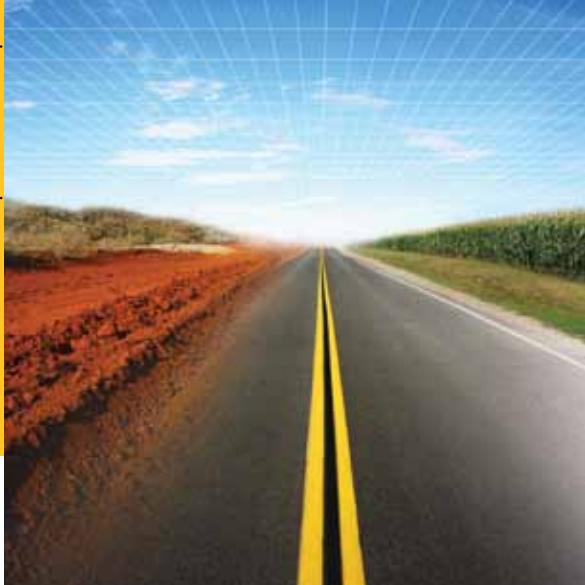


Ground Vehicle Standards Newsletter

Volume I, Issue 3
October 2010

SAE International

Creating harmonized standards solutions. Moving the on- and off-road vehicle industry forward.



Technical foundation of new fuel economy labels formed by SAE standards committee

The EPA and Department of Transportation are proposing new fuel economy labels that would include more information about a vehicle's environmental impact, including information about a vehicle's fuel consumption, emissions, and a comparative rating. Beginning with model year 2012 cars and trucks, this action will also include new label development for certain advanced technology vehicles, which are poised to enter the U.S. market, in particular plug-in hybrid electric vehicles and electric vehicles.

SAE International's **Hybrid Committee** was instrumental in formulating the technical foundation for these proposed new labels.

It is cited in the rule that the "The EPA has worked closely with stakeholders including vehicle manufacturers, SAE International, the State of California, the Department of Energy (DOE), and others to develop an approach for estimating fuel economy, fuel consumption, cost, CO₂ emission, or any other metric for vehicles that can operate using more than one energy source. EPA believes the appropriate method for combining the operation of vehicles that can operate with more than one fuel would be a weighted average of the appropriate metric for the two modes of operation. A methodology developed by SAE and DOE to predict the fractions of total distance driven in each mode of operation (electricity

and gas) uses a term known as a utility factor (UF). UF's were developed using data from the 2001 Department of Transportation."

SAE documents J1711, *Recommended Practice for Measuring the Exhaust Emissions and Fuel Economy of Hybrid-Electric Vehicles, Including Plug-in Hybrid Vehicles* and J2841, *Utility Factor Definitions for Plug-In Hybrid Electric Vehicles Using Travel Survey Data* are referenced throughout the proposed rule. Both documents were issued by the Hybrid Committee and their reference can be seen in the following excerpts taken from the Motor Vehicle Fuel Economy Label report. (EPA, 40 CFR Parts 85, 86 and 600; DOT/NHTSA, 49 CFR Part 575).

PHEV Test Procedure and Calculations

- The EPA proposes to incorporate by reference SAEJ1711, in part, for PHEV test procedures.

Charge Depleting Operation – FTP or "City" Test and HFET or "Highway" Test

- The EPA proposes to incorporate by reference SAEJ1711 chapters 3 and 4 for definitions and test procedures, respectively, where appropriate, with the following exceptions and clarifications. UF weighting is not intended for use with criteria pollutants.
- Net Energy Change Tolerance, NEC, is to be applied to the RESS to confirm charge sustaining operation. The EPA is proposing to adopt the 1% of fuel energy NEC state of charge criteria as expressed in SAEJ1711.

Issue Highlights:

Technical foundation of new fuel economy labels formed by SAE standards committee.....	C1
A long history of setting the standard.....	C2
SAE plugs its plug for EV charging.....	2
NHTSA aligns rule with SAE EV standard.....	3
SAE standards bring order to EV battery world.....	4
New standard sets best practices for measuring dry stopping distance.....	5
Safety of first responders during off-road tire fires is focus of standard.....	5
R-134a recovery and recycling service equipment standards updated.....	6
Technical Standards Board Outstanding Contribution Award..	7
Wheel conformance program and registry to launch.....	8
"My Standards Tracking," new benefit for SAE members.....	9
Call for volunteers--your expertise is needed.....	15
New Committee Chairs & Vice Chairs.....	15

World Headquarters, 400 Commonwealth Dr., Warrendale, PA 15096 USA; 1-724-776-4841

Automotive Headquarters, 755 W. Big Beaver, Suite 1600, Troy, MI 48084 USA; 1-248-273-2455

www.sae.org

EPA DOT Fuel Economy and Environmental Comparison

B

The above grade reflects fuel economy and greenhouse gases. Grading system ranges from A+ to D.

website.here

Over five years, this vehicle saves **\$1,900** in fuel costs compared to the average vehicle.

Gasoline Vehicle				
Gallons/100 Miles	MPG City	MPG Highway	CO ₂ (g/mile) (tailpipe only)	Annual fuel cost
3.8	22	32	347	\$1,617

Combined MPG: 26 CO₂ (g/mile): 302 Other Air-Pollutants: 16

* Fuel economy for all SUVs ranges from 12 to 32 MPG.
* Annual fuel cost based on 15,000 miles per year at \$2.00 per gallon.

Visit www.epa.gov to calculate estimates personalized for your driving, and to download the Fuel Economy Guide label template at no charge.

...continued on next page

...continued from previous page

- Hybrid Charge Sustaining Operation – FTP or “City” Test and HFET or “Highway” Test The EPA proposes to incorporate by reference SAEJ1711 chapters 3 and 4 for definitions and test procedures. The EPA proposes to adopt the 1% of fuel energy NEC state of charge criteria as expressed in SAEJ1711.

Charge Depleting Range Determination

- Calculation of Charge Depleting Range (RCDA) will require monitoring RESS SOC throughout charge depleting testing. The RCDA for each cycle would be the driven cycle distance from start of CD testing until the charge sustaining SOC is “crossed”. The EPA is proposing to incorporate by reference the SAEJ1711 calculation for Actual Charge Depleting Range.

Other Test Cycles

- PHEV and Electric vehicle testing over the SC03, US06, or Cold CO test cycles would follow the same general procedure as the FTP and HFED. EPA would consider the use of alternate or equivalent PHEV test procedures and may incorporate by reference SAEJ1711.
- A detailed method of UF development can be found in SAE J2841 “Utility Factor Definitions for Plug-In Hybrid Electric Vehicles Using Travel Survey Data.”

A long history of setting the standard

It's one of those things that is rarely thought about, yet touches lives on a daily basis.

Each morning as you put your key in your vehicle's ignition, turn it, and head off down the road—SAE standards have been implemented. As you board a plane and stow your carry-on baggage and slide into your seat, SAE standards are used. And, when you climb into the cab of your industrial-grade tractor to begin a day's work of farming, again, SAE standards are there.

No matter the mode of transportation or use—car, SUV, pickup truck, tractor, two-seater airplane, or jumbo jet—SAE standards are at the heart of your vehicle.

SAE standards have made vehicles safer, more reliable, more comfortable, and more cost-effective for manufacturers and consumers. In fact, in the U.S., SAE standards are referenced by many government regulations—a marriage of government safety and environmental efforts and current top technical industry solutions.

“SAE standards are relevant because they are created and developed by the professionals who design and create the vehicles themselves,” said **Jack Pokrzywa, Manager, Ground Vehicle Standards**. “If it moves on- or off-road, we've had our hands—literally and figuratively—on virtually every part of it”

Ed Manns, Manager, Aerospace Standards, said SAE has been a critical player in the development of the aerospace industry almost since the day that Orville and Wilbur Wright made their famous flight in Kitty Hawk.

“The aerospace mobility engineers who sit on our committees put a life's accumulation of talent and education into creating standards that benefit not only manufacturers but anyone who has ever stepped on an airplane,” Manns said. “This has been recognized by the leaders of our industry for decades. Our membership rolls are very impressive, including some of the best and brightest aviation minds of the past and present.”

The types of standards developed by SAE International are as varied as the personalities of the people who have helped to develop them. And, the relevance of those standards is crucial for industry and consumers alike. Some recent automotive standards include communications between plug-in vehicles and the utility grid; guidelines for electric vehicle safety; and recommended practice for measuring the exhaust emissions and fuel economy of hybrid-electric vehicles.

“Standards must change to meet technological changes,” Pokrzywa said. “SAE plays a critical role in meeting these challenges, and it's a role that SAE developers take very seriously.”

...continued on page 1

...continued from previous page

Manns noted that, on the aerospace side, SAE created a standard to thwart the growing problem of counterfeit electronic parts. The standard calls for maximized availability of authentic parts, procurement of parts from reliable sources, assuring authenticity and conformance of parts, and control of parts identified as counterfeit.

According to a study by the U.S. Department of Commerce Bureau of Industry & Security, the number of counterfeit incidents reported by 387 participants climbed from 3868 in 2005 to 9356 incidents in 2008, an increase of more than 140%. About 9% of the companies documented cases related to government applications. Sobering statistics, and SAE is there to help find solutions.

These are just a few examples of the thousands of technical standards that SAE develops and maintains.

SAE now reaches beyond the working professionals to embrace the next generation of mobility engineers. If you know a student who participates on a Collegiate Design Series (CDS) event, he or she for the first time ever will have access, free of charge, to about 50 SAE standards—both ground vehicle and aerospace. The intent is twofold: to help better prepare their vehicle or airplane for their registered competition and to get them acclimated to SAE standards so that they will be more familiar with them once they enter the workforce.

“This is an excellent way to blend present needs with tomorrow’s informational needs,” said Bob Sechler, Manager, Educational Relations. “The CDS students gain much-needed knowledge to help them compete while learning the value of SAE International standards—a value that will help them throughout their careers.”

The program is new and innovative, just like the thinking that goes into the development of every SAE technical standard. Whether it makes an aircraft safer or makes a vehicle or piece of equipment more cost-effective, the standard is created by mobility engineering professionals, in a neutral forum, for consumers.

So, the next time you step onto an airplane or into a car or piece of heavy equipment, take a moment to think about the SAE technical committee members and the SAE standards that have helped to make that vehicle better and safer. In the future, as you plug in your hybrid vehicle, SAE standards will be there, too.

And, rest assured that Ed Manns, Jack Pokrzywa, and the entire SAE standards team will continue the tradition—the crucial tradition—of leading the mobility engineering industry in standards development.

From Automotive Engineering International Online, 16-Sep-2010

David L. Schutt, SAE Chief Executive Officer

SAE International™

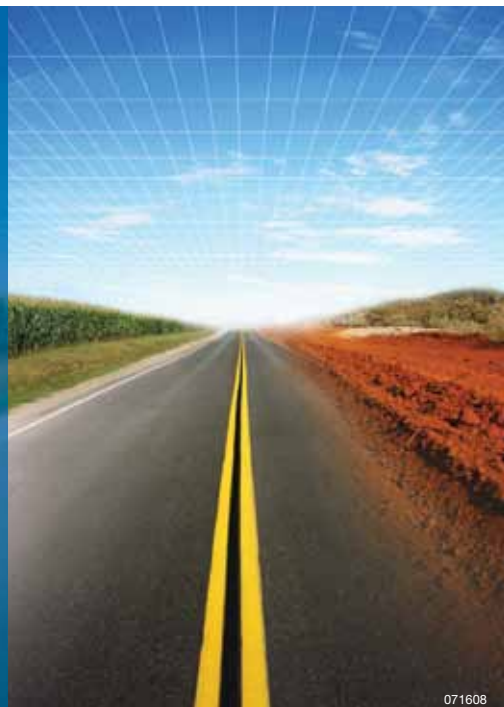
For On- and Off-Road Harmonized Standards Solutions, All Roads Lead to SAE

Since 1905, SAE International has been providing the common engineering requirements for new mobility products, advanced technologies, and applications. It is uniquely positioned to provide innovative standards solutions to the global on- and off-road industries and their engineering challenges.

For automotive vehicles, SAE plays the central role in developing essential North American emissions and safety standards to meet some of the most stringent regulations in the world. Through ISO, it plays a key role in bringing standards for and from the United States market to the global table. As the center of expertise on Commercial Vehicle/ConAgg standards development, many of its standards are adopted by ANSI and ISO.

SAE offers a full suite of standards capabilities—committee management, consensus-based standards development, consortium administration, cooperative research, and database development—providing industry, companies, and individuals with extensive opportunities to participate, influence, grow, and prosper.

www.sae.org



071608

SAE plugs its plug for EV charging

Because so few car models of the type are on the road yet, the ratio of electric vehicles to charging stations is healthy. Whether the ratio stays in balance remains to be seen.

A General Motors engineer who is in the thick of the matter believes that the good progress to date in development of a charging infrastructure owes heavily to standardization of the plug and in-vehicle receptacle that EV owners will use for charging. The engineer, **Gery Kissel, is Chair of an SAE International task force** that wrote and recently published J1772, the connector standard to be used in the U.S. and, he hopes, in many other places around the world.

"We're just seeing an explosion of EVSE [electric vehicle supply equipment] infrastructure projects going in," he told *Automotive Engineering International*. "You seem to hear about a different project being announced every day—in cooperation with certain cities, very frequently. I don't think any of that could have been done unless we had the standard in place. It's having an impact I didn't quite foresee, and it's given people opportunity to do things a little bit quicker than what may have been previously anticipated."

The J1772 coupler (includes the plug and the vehicle receptacle) currently addresses Level 1 (120 V) and Level 2 (240 V) charging. The standard is also used in Korea and in Japan, where several EVs from major automakers already are on sale. J1772 accommodates any country's electrical system, said Kissel, whose title at GM is Engineering Specialist, RSS Charging Systems, Charging Codes, Standards, and Infrastructure.

He noted that China has come out with its own coupler standards, at least for now as the country carries out EV fleet demonstrations. "I've been starting to have very good dialogue with China and trying to harmonize [our standards] as we go forward," Kissel said.

The group in Europe that is working on a connector standard is the IEC (International Electrotechnical Committee). Its proposed IEC62196 has three specifications, according to Kissel, and is expected to be adopted next fall. One specification is the same as J1772, with the others accounting for differing requirements among European countries, including availability in some of three-phase electricity for fast charging.

SAE hopes J1772 becomes the main global standard for all types of charging. Kissel said that some European OEMs are incorporating the J1772 specifications into their EV designs because the standard is well established. He noted that J1772 is a good solution for Europe because there is no other established standard there and because there are no "completed production tools" for the proposed IEC connectors, "where with the SAE standard, you can actually go out and buy the [Level 1 and 2] connector and plug-in receptacle today."

But it's not clear that J1772 will win out. Richard Lowenthal, CEO of charging station maker Coulomb, said his company's biggest client is the city of Amsterdam, whose 120 stations will be equipped with something other than a J1772 connector. "In the U.S., everyone pretty much wants J1772. The story is over," he said. "In Europe, not so much."

However things pan out in Europe, at least the J1772 physical interfaces and communication protocols will be the same between the SAE and IEC plugs, said Kissel. The main difference would be in the plastic housing.



Takasago's rapid charging station accommodates the Chademo fast-charge EV standard developed in Japan. A Takasago station recently was installed in Portland, OR.

...continued on page 3

...continued from page 2

Kissel noted that Europe hopes to move from the three couplers in the current draft standard to a single one by 2017.

Also unresolved in terms of global harmonization is a standard for fast charging. Only in Japan is such a standard in place. Kissel said his J1772 task force is working feverishly to develop a dc fast-charging standard. Most of his task force members want to see J1772 updated so a single plug can accommodate both dc fast charging and the slower ac charging of Level 1 and 2, Kissel said, "but it's a very big challenge." He noted that pins would have to be added to the current five-pin J1772 plug, and as a consequence it would have to be larger.

The task force is also considering how to incorporate features of, or perhaps outright adopt, the Japanese fast-charge standard. Either way, the goal is to have one plug for all types of charging so vehicles need not be designed with two space-eating receptacles, Kissel said.

Coulomb and ECotality are developing dc fast chargers, and the latter will be installing such units as part of its EV Project. But Level 2 is where the real action is in the short term.

From Automotive Engineering International Online, 15-Sep-2010

NHTSA aligns rule with SAE EV standard

The U.S. National Highway Traffic Safety Administration has revised its rule addressing electrolyte spillage and electrical shock protection for electric-powered vehicles to align more closely with SAE J1766, *Recommended Practice for Electric and Hybrid Electric Vehicle Battery Systems Crash Integrity Testing*, issued by the **SAE Fuel Cell Standards Committee**. The standard currently requires manufacturers to design their vehicles so that, in the event of a crash, a vehicle's propulsion battery system will be electrically isolated from the vehicle's electricity-conducting structure. As amended, the rule provides greater flexibility, requiring manufacturers to design their electrically powered vehicles so that, in the event of a crash, the electrical energy storage, conversion, and traction systems are either electrically isolated from the vehicle's chassis or their voltage is below specified levels considered safe from electric shock hazards. The agency says that since the physiological impacts of direct current are less than those of alternating current, the rule specifies lower electrical isolation requirements for certain dc components than for ac components. The current standard does not recognize the difference in safety risk between dc and ac components. As requested by the Alliance of Automobile Manufacturers, the final rule now specifies electrical isolation requirements of 500 ohm/V for ac and dc high-voltage sources and 100 ohm/V for dc high-voltage sources with continuous monitoring of electrical isolation. The revised rule takes effect Sept. 1, 2011.

From Automotive Engineering International Online, 25-Jun-2010

Engineering Aids from SAE

SAE provides products that support testing procedures set forth in SAE standards, Recommended Practices, Information Reports, and other SAE documents including the **OSCAR H-Point Machine**, which is used in the design of seating and interior packages and in conjunction with SAE J 826 (rev. 1995), FMVSS regulations, and ISO standards—making it the required design and auditing tool for current production.

Also available is the newly designed **HPM II H-Point Machine**, which includes enhancements over the OSCAR H-Point machine for use in advance design applications.

Available at <http://store.sae.org/ea/>



SAE standards bring order to EV battery world

As electric vehicles of various types begin to appear in greater numbers over the coming years, danger to drivers, first-responders, mechanics, and others will grow right along.

SAE International is trying to limit the potential for danger by developing standards that cover everything from the design to the recycling of large advanced-technology batteries used in what for this article are called electric vehicles (EVs) but which include pure EVs and hybrid-electrics of different kinds. Battery standards are useful for several reasons, but safety is paramount.

"We're running as fast as we can to develop these standards by assisting industry professionals in designing safe vehicles for the general consumer," said **Robert Galyen, Chair of SAE's Battery Standards Committee** and General Manager of the Battery and Materials Testing Group in the newly formed E-Car group at Magna.

In addition to the safety benefits to consumers and others who interface with EVs and EV batteries, another motive for developing standards in this area is the reduction of costs across "the entire food chain," Galyen said. "Standardization helps drive costs down because they allow multiple battery manufacturers to make products of a similar form factor and rating so that vehicle manufacturers can produce lower cost product, and that lower cost can be passed on to the consumer."

The standards also will make it easier for automakers to evaluate batteries, said Galyen.

Expectations of safer and lower-cost products apply not only to cars but also to trucks of all sizes. Standards are being developed to apply to the off-highway, aerospace, and marine industries as well.

SAE created the Battery Standards Committee in November in response to the fact that "emerging battery technologies are creating a new paradigm in the areas of materials, safety, performance, manufacturability, and shipping/transportation," Galyen said. The organization already had in place many battery-related standards, which until then were under the domain of different SAE committees. "We wanted to get all battery standards under the same roof, so we could cover both cranking and traction applications," said Galyen.

The work of developing new standards and updating existing ones has been taken on by about 140 volunteer engineers or other professionals from about 80 companies. The Battery Standards Committee has grown faster than any ever at SAE, according to Galyen, and currently is its largest. Each of 10 task forces is or will be working to develop new standards or updating outdated ones.

The Battery Safety task force is moving at "warp speed" to complete J2929, *Electric and Hybrid Vehicle Propulsion Battery System Safety Standard*, which is of "utmost importance," said Galyen. The hope is that the standard will be put out for ballot by year's end and published soon after. The others will follow, but there is no precise timeline, according to SAE.

With respect to standardization of battery/battery pack dimensions, Galyen hopes that too will come sooner rather than later as automakers are currently using different sizes.

Another standard of high priority is J1798, *Recommended Practice for Performance Rating of Electric Vehicle Battery Modules*. This is the document that will help automakers better determine which batteries are most suited to specific applications. Since J1798 is still under revision by the Battery Testing task force, the only publicly available portion of the revised document is the Scope: "This SAE Recommended Practice provides for common test and verification methods to determine electric-vehicle battery module performance. The document creates the necessary performance



This 1.7-kW module from Magna E-Car is of a lithium-base chemistry.

...continued on page 5

...continued from page 4

standards to determine (a) what the basic performance of EV battery modules is; and (b) whether battery modules meet minimum performance specification established by vehicle manufacturers or other purchasers. Specific values for these minimum performance specifications are not a part of this document.”

Other standards at the work-in-progress stage include: J2758, *Determination of the Maximum Available Power from a Rechargeable Energy Storage System on a Hybrid Electric Vehicle*; J2936, *Vehicle Battery Labeling Guidelines*; J2946, *Battery Electronic Fuel Gauging Recommended Practices*; J2950, *Recommended Practices (RPs) for Transportation and Handling of Automotive-type Rechargeable Energy Storage Systems (RESS)*; and J537, *Storage Batteries*.

From SAE Update, October 2010

New standard sets best practices for measuring dry stopping distance

The **SAE Highway Tire Forum Steering Committee**, chaired by William John Woehrle of Tire Forensics Investigations, has completed work on a document that will aid manufacturers and media organizations in evaluating and comparing vehicle and tire stopping distance performance. Specific to stopping distance performance on dry asphalt pavement in a straight path of travel, the standard is expected to significantly improve the accuracy and repeatability of performance results obtained among various organizations when used consistently.

J2902, *Light Vehicle Dry Stopping Distance* was developed with support and participation from NHTSA and US TAG for ISO TC 31-Tires and was sponsored by David Howland of General Motors. It is available for purchase at http://standards.sae.org/j2909_201005

Safety of first responders during off-road tire fires is focus of standard

A burning tire from an earth-moving machine may pose potential dangers to first responders and those nearby.

Because the potential danger is considerable, SAE International has published a report to help first responders and firefighters safely battle fires involving large, off-road vehicles.

J2828—Off-Road Tire Fire Handling Guidelines provides specific information to help ensure the safety of the machine operator, rescue personnel, and firefighters when battling an off-road tire fire. It also provides information on the causes of tire fires and methods to reduce the likelihood of such fires.

The guidelines were published with the assistance of the U.S. Department of Labor's Mine Safety and Health Administration.

J2828 was created by **SAE's Mtc8, Tire and Rim Committee** and is available http://standards.sae.org/j2828_201004.

From SAE Update, September 2010



Because the potential danger is considerable, SAE has published a report to help first responders and firefighters safely battle fires involving large, off-highway vehicles. (Texas Forest Service)

R-134a recovery and recycling service equipment standards updated

In December 2009, SAE International's J2788, *HFC-134a (R-134a) Recovery/Recycling Equipment and Recovery/Recycling/Recharging for Mobile Air-Conditioning Systems* was published. J2788 superseded the requirements of SAE J2210, *HFC-134a (R-134a) Recovery/ Recycling Equipment for Mobile Air-Conditioning Systems* to reduce refrigerant emissions during servicing and provides requirements for charging refrigerant into mobile air conditioning systems.

In October 1995, SAE International's J1770 automotive refrigerant recovery/recycling equipment intended for use with both R-12 and R-134a was issued. This equipment does not meet current start of art to assure refrigerant recovery from the MAC system and does not provide any method to assure the system is accurately recharged with refrigerant.

Both J1770 and J2210 Standards have been canceled because they don't meet current industry refrigerant containment of emissions criteria when recovering and charging R-134a refrigerant during service of MAC systems.

SAE International's Interior Climate Control Standards Committee has developed requirements for the new R-1234yf refrigerant to be used in future MAC systems. Among the new SAE standards is J2843, *R-1234yf Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning* and J2851, *R-1234yf Refrigerant Recovery Equipment for Mobile Automotive Air-Conditioning Systems*. It is anticipated that the new R-1234yf SAE Standards and Recommended Practices will be published in 2011.

This past June, the committee conducted a "Mobile Air Conditioning Indirect Emissions Workshop" in conjunction with the SAE 2010 Automotive Refrigerant and System Efficiency Symposium in Scottsdale, Arizona, USA.

The purpose of the workshop, which featured presentations and panel discussions, was to begin discussions on the establishment of a common global industry standard that can be used to identify increased load on a vehicle's engine due to air conditioner usage, measuring this impact on vehicle fuel efficiency and CO2 emissions.

Regulatory agencies such as the U.S. EPA and the California Air Resources Board have discussed the benefits of such a proposed standard with the Interior Climate Control Standards Committee, indicating that a common test procedure to determine indirect emissions caused by Mobile Air Conditioning systems would result in environmental and economic benefits globally.

An economical pathway for joint venture research: the Cooperative Research Program of SAE

Cooperative research ventures serve to bring more minds to the challenges and issues faced by industry. The result is a more robust project than each participating organization could complete independently. The pooling of financial resources also affords each participant more efficient use of their research budgets and eliminates duplication of efforts. Whether moving forward on the development of fuel cell standards...researching alternative refrigerants to HFC 134a...or developing a database of human body measurements to foster ergonomic designs, SAE's Cooperative Research Program can assist your company in its collaborative research needs.

To learn more contact Gary Pollak, Program Manager +1-724-772-7196; gary@sae.org



Volunteer spotlight: SAE Awards

Technical Standards Board Outstanding Contribution Award

This award recognizes individuals for outstanding service in the technical committee activities of the Society. This includes valuable contributions to the work of SAE technical committees, unusual leadership in the activities of an SAE technical committee, significant contributions as a representative of the Society to the accomplishments of technical committees of other organizations or of government agencies, and outstanding contributions to SAE technical committee work in the form of research, test methods and procedures, and/or development of standards. It is administered by the SAE Technical Standards Board.

Construction, Agricultural & Off-Road Machinery Council

Thomas Ihringer, Bobcat Co.

Stan Mullins, Retired, Charles Machine Works Inc.

Truck and Bus Council

Jim Clark, Vehicle Brake Systems Consulting LLC

Charles Groeller, Retired, Mack Trucks Inc.

Tom Sheikh, Carlisle Motion Control Industries Inc.



Bobcat's **Thomas Ihringer** receiving the Technical Standards Board Outstanding Contribution Award from SAE International Commercial Vehicle President **Ric Kleine** at the recent SAE Commercial Vehicle Congress.

Delivery options for SAE Technical Standards

- Handbook Supplements (HS) – Bound collections of technology related standards and reports offered at less than the collective price of the individual standards in the collection.
- JPaks - Online Standards Plans – A customizable subscription plan that lets you pay for just the documents you need and use, full text search capabilities and an alert page keep you aware of changes and updates.
- Standards on CD-ROM – An entire SAE standards library in a medium that is fast, easy to use and remains current throughout the year.
- Databases and customizable corporate solutions.

For detailed information, visit <http://standards.sae.org/>

Wheel conformance program and registry to launch

The wraps are about to come off a program under which wheel makers whose aftermarket rims meet SAE's J2530 standard get an opportunity to distinguish themselves and their products from wheel makers and products that do not meet the standard.

The SAE program is voluntary, so if a wheel maker has one or more rims that meet J2530, it can choose to have the rim(s) listed in an online registry/database. The registry will be created and maintained by SAE as a consumer aid and will feature free access to basic information including the list of participating companies and basic test results. There will be a charge (not yet established) for more detailed information.

"SAE recognizes that the Internet is a powerful and easy-to-access resource for consumers," said **John Kinstler, Vice President (retired) of Engineering at Hayes Lemmerz International and Chair of the Aftermarket Wheel Test Certification Conformance task force of the SAE Wheels Committee.** "What makes our online wheel registry even more valuable is that it will serve as a resource for professionals within the rim industry as well as everyday consumers."

Participating companies will be permitted to place an SAE logo on rims that conform to J2530, providing another visual distinction (in addition to registry listing) from products that do not conform to J2530 (or that do conform but have not been submitted for listing in the registry). Companies may choose not to participate or to submit only certain wheels for the registry. It is SAE's hope that all wheel makers will take full advantage of the registry. To participate, a wheel maker would pay an initial \$200 entry fee, then a \$100 annual renewal fee. There also will be a fee (to be determined) for each wheel family registered.

Wheel makers currently may stamp onto their rims "J2530" if they comply with the standard. But it is only by participating in the registry that they may also use an SAE logo, which is now being designed.

SAE will not conduct the wheel testing, but it will accredit facilities to do so. Wheel makers may conduct the testing themselves, or they may outsource it. Either way, information confirming that testing for a particular wheel family was conducted in accordance with procedures spelled out in J2530 must be submitted.

The wheel-registry program is similar in some ways to SAE's power rating program under which companies can have their engines tested for conformity with the relevant SAE engine standard (J1349 – Engine Power Test Code – Spark Ignition and Compression Ignition – Net Power Rating). In that program, the goal is to draw a distinction between one automaker's unverified engine rating claims and another automaker's SAE-verified claims. In both programs, participating companies may place the SAE logo on their qualifying products and tout SAE verification in written materials.

SAE has completed almost all of the legwork to implement the first phase of the wheel program, which is to activate the online registry website and begin listing all wheel manufacturers that choose to participate. As part of this phase, participating wheel makers will have to submit the mark they use on their wheels. SAE hopes to complete phase one in the next month or so.

It could be a matter of only a few weeks after phase one is implemented that phase two can begin. In phase two, wheel makers will be able to submit test data for their various rims. Once determined by SAE that the test data proves conformance to J2530, a wheel maker will be permitted to put the SAE mark on the conforming rims.

J2530 was adopted by SAE near the end of 2009. Some wheel makers already have J2530 test data for their existing products, Kinstler said. "Wheels can be grandfathered in with previous testing results if done by a certified laboratory. Therefore, we would expect a large number of wheels to be listed [in the registry] in a shorter period of time than necessary to retest wheels."



Alcoa's Classic Dually is available in 16- and 17-in sizes. All Alcoa wheels meet the J2530 standard, according to the company.

...continued on page 9

...continued from page 8

“The wheel industry is very aware that the wheel is a safety component in the vehicle,” Kinstler continued. “While most wheels are designed and manufactured to meet vehicle requirements, some wheels may not meet this requirement. SAE J2530 was created to ensure that the basic strength of the wheel is present.”

From Automotive Engineering International Online, 08-Sep-2010

“My Standards Tracking,” new benefit for SAE members

Anyone who uses SAE Standards will be interested in a new benefit launching soon for SAE Members only. “My Standards Tracking” will provide members with the ability to request email alerts with updates for selected documents. Standards for both the aerospace and ground vehicle sectors are included in this feature, and members can select individual documents or all documents by technical committee.

Once you select your SAE Standards, you will be kept informed of the status and know immediately when your documents are being updated. Email alerts will be sent for the following scenarios:

Revised – Email Alert: At your request, SAE would like to notify you that a revision, for example, J1939 has begun. If you would like to get involved in drafting this revision, please contact SAE Customer Service at CustomerService@sae.org

Final Ballot – Email Alert: At your request, SAE would like to notify you that the final ballot, for example, J1939 has begun. This document is nearing publication. A final email alert will be sent to you when it is published.

Published – Email Alert: At your request, SAE would like to notify you that, for example, J1939 has been published. To purchase this document, go to <http://www.sae.org/servlets/works/documentHome.do?comtID=TEAA21&doclD=AIR5715A&inputPage=dOcDeTallS>

New Project – Email Alert: At your request, SAE would like to notify you that a project, for example, J1939 has begun. For details on this document, go to <http://www.sae.org/servlets/works/documentHome.do?comtID=TEAA21&doclD=AS9876&inputPage=dOcDeTallS>

SAE Members will be able to add the “My Standards Tracking” link through EngineerXchange™. Watch for the announcement when this new SAE Member benefit is officially launched.

SAE: A Global Partner in Standards Development

In addition to the maintenance and development of its family of technical standards, SAE International is also an active partner with other standards development organizations, government agencies, and regulatory bodies to support the newest, most robust, and comprehensive standards products for a changing global marketplace.

- US Department of Transportation
- Society of Automotive Engineers of Japan (JSAE)
- German Electrical and Electronic Manufacturers Association (ZVEI)
- US Federal Highway Administration
- China Automotive Technology & Research Center (CATARC)
- National Highway Traffic Safety Administration
- Korean Agency for Technology and Standards (KATS)
- US Department of Energy
- Japan Automobile Research Institute (JARI)
- US Environmental Protection Agency
- Brazilian National Standards Organization (ABNT)
- American National Standards Institute (ANSI)
- Automotive Electronics Council (AEC)
- International Organization for Standardization (ISO); US representative



New & revised SAE Technical Standards (June – September 2010)

Construction, Agricultural & Off-Road Machinery Council

Committee	Doc	Title	Status	Pub date
Personnel Protection	J2752_201006	Personnel Protection - Compact Tool Carriers	Issued	06/21/10
Lighting and Marking	J96_201007	Flashing Warning Lamp for Industrial Equipment	Revised	07/30/10

Fuels & Lubricant Council

Fuel & Lubricants TC2 Industrial Lubricants	MS1001_201006	Lubricants, Industrial Oils, and Related Products Type A Lubricant for General Purpose and Total Loss Systems – Specification	Revised	06/23/10
	MS1005_201006	Lubricants, Industrial Oils, and Related Products Type HF Fire-Resistant Hydraulic Fluids – Specification	Revised	06/21/10

Materials, Processes & Parts Council

Acoustical Materials	J1400_201008	Laboratory Measurement of the Airborne Sound Barrier Performance of Flat Materials and Assemblies	Revised	08/05/10
Automotive Rubber Specs	J2236_201009	Standard Method for Determining Continuous Upper Temperature Resistance of Elastomers	Revised	09/21/10
Surface Enhancement	J443_201006	Procedures for Using Standard Shot Peening Almen Strip	Revised	06/16/10
	J444_201006	Cast Shot and Grit Size Specifications for Peening and Cleaning	Revised	06/16/10
Ground Vehicle Reliability	J2869_201008	Mechanical Systems Physics-of-Failure Analysis Experimental Validation	Issued	08/30/10
Non-Hydraulic Hose	J2387_201008	Dimensions and Tolerances for Coolant System Hoses	Revised	08/26/10
	J2666_201006	Hose Gauge Evaluation Procedure	Reaffirmed	06/16/10
Textile and Flexible Plastics	J1774_201006	Design Guidelines for Fiberboard Materials	Reaffirmed	06/21/10
	J361_201006	Procedure for Visual Evaluation of Interior and Exterior Automotive Trim	Revised	06/16/10
Hydraulic Tube Fittings	J1298_201008	Connections for Fluid Power and General Use - Hydraulic Couplings - Diagnostic Port Sizes and Locations	Revised	08/05/10
	J1926/4_201008	Connector for Fluid Power and General Use - Ports and Stud End with ASME B1.1 Threads and O-Ring Seal - Part 4: External Hex and Internal Hex Inch Port Plugs - Dimensions, Design, Test Methods and Requirements	Revised	08/05/10
Hydraulic Hose and Hose Fittings	J1402_201008	Automotive Air Brake Hose and Hose Assemblies	Revised	08/05/10
	J1754/2_201008	Hose Assemblies, Rubber, Hydraulic, Steel Wire Reinforced - Part 2: Ordering Information	Revised	08/05/10
	J1754/3_201008	Hose Assemblies, Hydraulic, J517 100R Series Hose - Part 3: Procurement and Ordering Information	Revised	08/05/10
	J343_201008	Test and Test Procedures for SAE 100R Series Hydraulic Hose and Hose Assemblies	Revised	08/05/10

Motor Vehicle Council

Road Vehicle Aerodynamics Forum	J1594_201007	Vehicle Aerodynamics Terminology	Revised	07/29/10
Accident Investigation and Reconstruction Practices	J2505_201008	Measurement of Vehicle-Roadway Frictional Drag	Revised	08/05/10
Brake Dynamometer	J2789_201008	Inertia Calculation for Single-Ended Inertia-Dynamometer Testing	Issued	08/05/10
Interior Climate Control Service	J2788_201006	HFC-134a (R-134a) Recovery/Recycle/Recharging Equipment for Mobile Air-Conditioning Systems	Revised	06/21/10
Vehicle E E System Diagnostic	J1979DA_201009	Digital Annex of E/E Diagnostic Test Modes	Issued	09/28/10
	J1979_201009	E/E Diagnostic Test Modes	Revised	09/28/10
Electromagnetic Compatibility (EMC)	J1113/22_201008	Electromagnetic Compatibility Measurement Procedure for Vehicle Components-Part 22-Immunity to Radiated Magnetic Fields	Cancelled	08/11/10
	J1113/24_201008	Immunity to Radiated Electromagnetic Fields; 10 kHz to 200 MHz - Crawford TEM Cell and 10 kHz to 5 GHz - Wideband TEM Cell	Cancelled	08/06/10
	J1113/28_201006	Electromagnetic Compatibility Measurements Procedure for Vehicle Components--Part 28--Immunity to Radiated Electromagnetic Fields--Reverberation Method (Mode Tuning)	Cancelled	06/09/10

	J1113/2_201008	Electromagnetic Compatibility Measurement Procedures and Limits for Vehicle Components (Except Aircraft) - Conducted Immunity, 15 Hz to 250 kHz – All Leads	Cancelled	08/06/10
	J1113/3_201008	Conducted Immunity, 250 kHz to 400 MHz, Direct Injection of Radio Frequency (RF) Power	Cancelled	08/05/10
Connector Systems	J1239_201009	Four-, Five-, and Eight-Conductor Electrical Connectors for Automotive Type Trailer	Revised	09/07/10
Harness Covering	J2192_201006	Recommended Testing Methods for Physical Protection of Wiring Harnesses	Revised	06/28/10
Cooling Systems	J1468_201010	Oil Cooler Application Testing and Nomenclature	Revised	10/01/10
	J2873_201007	Electric Drive Cooling Fan Motor Mounting	Issued	07/08/10
Fuel Systems	J2663_201006	Test Procedure to Measure Permeation of Elastomeric Hose or Tube by Weight Loss	Issued	06/16/10
Human Accom and Design Devices	J1052_201009	Motor Vehicle Driver and Passenger Head Position	Revised	09/30/10
Hybrid	J2841_201009	Utility Factor Definitions for Plug-In Hybrid Electric Vehicles Using Travel Survey Data	Revised	09/21/10
	J2847/1_201006	Communication between Plug-in Vehicles and the Utility Grid	Issued	06/16/10
Heavy Duty Lighting	J2577_201007	Heavy Duty Lamp Electrical Connector Standard	Revised	07/07/10
Road Illumination Devices	J2111_201009	Headlamp Cleaners	Revised	09/07/10
	J581_201009	Auxiliary High Beam Lamps	Revised	09/16/10
Signaling and Marking Devices	J1319_201008	Rear Fog Lamp Systems	Revised	08/18/10
	J1373_201009	Rear Cornering Lamps for Use on Motor Vehicles Less than 9.1 m in Overall Length	Revised	09/07/10
	J593_201008	Backup Lamp (Reversing Lamp)	Revised	08/26/10
Dummy Testing and Equipment	J2517_201009	Hybrid III Family Chest Potentiometer Calibration Procedure	Revised	09/28/10
Tow Vehicle Trailer Rating	J2807_201009	Performance Requirements for Determining Tow-Vehicle Gross Combination Weight Rating and Trailer Weight Rating	Revised	09/29/10
Vehicle Dynamics	J2704_201009	Tire Normal Force/Deflection and Gross Footprint Dimension Test	Reaffirmed	09/07/10
	J2718_201009	Test for Tire Quasi-Static Longitudinal Force vs. Longitudinal Displacement and Quasi-Static Lateral Force vs. Lateral Displacement	Reaffirmed	09/07/10
VIN - WMI Technical Committee	J129_201008	Engine and Transmission Identification Numbers	Revised	08/05/10
Specialized Vehicle & Equipment Council				
Motorcycle Technical	J1248_201006	Performance Requirements for Parking Stability of Motorcycles	Reaffirmed	06/21/10
	J131_201006	Motorcycle Turn Signal Lamps	Reaffirmed	06/16/10
	J584_201009	Motorcycle Headlamps	Reaffirmed	09/13/10
Marine Electrical Systems	J1294_201009	Ignition Distributors – Marine	Revised	09/07/10
Snowmobile Technical	J1279_201008	Snowmobile Drive Mechanisms	Revised	08/26/10
	J277_201008	Maintenance of Design Voltage - Snowmobile Electrical Systems	Revised	08/26/10
	J92_201008	Snowmobile Throttle Control Systems	Revised	08/26/10
Special Purpose Vehicle	J2358_201009	Low Speed Vehicles	Revised	09/29/10
Ship Systems - Fluid Systems and Components	J2890_201006	Hydraulic Fluid Power - Accelerated Method for Determining the Wear Characteristics of a Hydraulic Component Due to Contaminants	Issued	06/21/10
Truck & Bus Council				
Truck and Bus Brake Systems	J2378_201008	Test Procedure for Trailer Air Reservoir Fill and Parking Brake Release Times	Reaffirmed	08/18/10
	J293_201009	Truck and Bus Grade Parking Performance Requirements	Reaffirmed	09/16/10
Truck and Bus Electrical Systems	J2891_201007	Auxiliary Power Unit Electrical Interface Requirements for Class Eight Trucks	Issued	07/06/10

Documents in progress

Truck and Bus Council

Truck and Bus Tire Pressure Management Systems Committee

J2848/2 Tire Pressure Systems - Maintenance Type For Medium and Heavy Duty Highway Vehicles

Truck and Bus Control and Communications Network Committee

J1939-14 Physical Layer, 500K bits/s

Truck and Bus Brake Actuator Committee

J2899 Maximum Readjustment Strokes for Air Brake Actuators

J2902 Air Disc Brake Actuator Test Procedure, Truck-Tractor, Bus and Trailer

J2932 Air Disc Brake Actuator Test Requirements

Truck and Bus Wheel Committee

J2803 Dimensional Compatibility for Commercial Vehicle Wheels to Air Disc Brake Calipers

Truck and Bus Hybrid Safety Committee

J2910 Design and Test of Hybrid Electric Trucks and Buses for Electrical Safety

Truck and Bus Hydraulic Hybrid Committee

J2898 Hydraulic Hybrid Vehicle Terminology

Truck and Bus Human Factors Committee

J2955 Access Systems for On-Road Commercial Vehicles

Truck Crashworthiness Committee

J2956 Occupant Restraint and Equipment Mounting Integrity – Side Impact System-Level Ambulance Patient Compartment

Truck and Bus Windshield Wipers and Climate Control Committee

J2918 Engine-Off Cab Heating and Air Conditioning Systems Test Procedure and Performance Requirements— Trucks with and Without Sleepers

Motor Vehicle Council

Automotive Quality and Process Improvement Committee

J2886 DRBFM (Design Review Based on Failure Modes)

Service Development Steering Committee

J2892 Graphics-Based Service Documentation

Chassis Systems Group, Motor Vehicle Council

Brake Dynamometer Standards Committee

J2923 Brake Drag Measurement Test Procedure For Vehicles Below 4 540 kg GVWR

J2928 Rotor/Drum Crack and Strength Dynamometer Test Procedure

Brake NVH Standards Committee

J2933 Verification of Brake Rotor Modal Frequencies

J3001 Brake Shim Damping Procedure

J3002 Dynamometer Low-Frequency Brake Noise Test Procedure

Highway Tire Forum Steering Committee

J2047 Tire Performance Terminology

Hydraulic Brake Components Standards Committee

J1902 Vacuum Booster Requirements

J2879 Automotive Hydraulic Brake System – Metric Hydraulic Tube Connections for Inverted Flares

Vehicle Dynamics Standards Committee

J2811 Road Load Tire Model Accuracy Requirements for Spindle Loads Predictions

J2812 Road Load Tire Model Validation Procedure

J2834 Ride Index Structure and Development Methodology

Powertrain Systems Group, Motor Vehicle Council

Air Cleaner Test Code Standards Committee

J2952 Hydrocarbon Adsorber Test Procedure

Diesel Exhaust Aftertreatment Standards Committee

J2865 Driver Notification of Urea Level for Diesel Applications with SCR Systems

J2916 Urea Filling Interface document for the Light Duty Vehicles

Fuel Cell Standards Committee

J2919 TIR for Compressed Hydrogen Fuel Systems in Fuel Cell Powered Industrial Trucks

Emissions Standards Committee

J2942 Heavy Duty Diesel Engine Testing for Emissions Certification

J2943 Particulate Filter Weight Room Maintenance

Fuel Systems Standards Committee

J2491 System Design for Fueling Interface Between Passenger Vehicles and Petroleum Equipment

J2852 Impact Testing of Automotive Fuel Tanks

J2903 Fuel Delivery Module Design and Testing Standard

Hybrid Committee

J2836/2 Use Cases for Communication between Plug-in Vehicles and the Supply Equipment (EVSE)

J2836/3 Use Cases for Communication between Plug-in Vehicles and the Utility Grid for Reverse Power Flow

J2836/4 Use Cases for Diagnostic Communication for Plug-in Vehicles

J2836/5 Use Cases for Communication between Plug-in Vehicles and their customers

J2847/2 Communication between Plug-in Vehicles and off-board DC Chargers

J2847/3 Communication between Plug-in Vehicles and the Utility Grid for Reverse Power Flow

J2847/4 Diagnostic Communication for Plug-in Vehicles

J2847/5 Communication between Plug-in Vehicles and their customers

- J2894/1 Power Quality Requirements for Plug In Vehicle Chargers - Part 1: Requirements
- J2894/2 Power Quality Requirements for Plug In Vehicle Chargers - Part 2: Test Methods
- J2907 Power rating method for automotive electric propulsion motor and power electronics sub-system
- J2908 Power rating method for hybrid-electric and battery electric vehicle propulsion
- J2931/1 Power Line Carrier Communications for Plug-in Electric Vehicles
- J2931/2 Inband Signaling Communication for Plug-in Electric Vehicles
- J2953 Plug-In Electric Vehicle (PEV) Interoperability with Electric Vehicle Supply Equipment (EVSE)
- J2954 Wireless Charging of Electric and Plug-in Hybrid Vehicles

Vehicle Battery Standards Committee

- J2929 Electric and Hybrid Vehicle Propulsion Battery System Safety Standard
- J2936 Vehicle Battery Labelling Guidelines
- J2946 Battery Electronic Fuel Gauging Recommended Practices
- J2950 Recommended Practices for Transportation and Handling of Automotive-type Rechargeable Energy Storage Systems (RESS)

Vehicle Engineering Systems Group, Motor Vehicle Council

Interior Climate Control Committee

- J2911 Certification Requirements For Mobile Air Conditioning System Components, Service Equipment, and Service Technicians to Meet SAE J Standards

Interior Climate Control Fluids Committee

- J2297 Ultraviolet Leak Detection: Stability and Compatibility Criteria of Fluorescent Refrigerant Leak Detection Dyes for Mobile R-134a Air-Conditioning Systems
- J2844 R-1234yf New Refrigerant Purity and Container Requirements Used in Mobile Air-Conditioning Systems
- J2941 Service compressor oil for HFO-1234yf [R-1234yf]

Interior Climate Control Service Committee

- J2843 R-1234yf Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems
- J2845 Technician Training for Safe Service and Containment of Refrigerants Used in Mobile A/C Systems (R-744, and R-1234yf)
- J2851 R-1234yf Refrigerant Recovery Equipment for Mobile Automotive Air-Conditioning Systems
- J2888 R-1234yf Service Hose, Fittings and Couplers for Mobile Refrigerant Systems Service Equipment
- J2912 R-1234yf Refrigerant Identification Equipment for Use with Mobile Air Conditioning Systems
- J2913 R-1234yf Refrigerant Electronic Leak Detectors, Minimum Performance Criteria
- J2927 R-1234yf Refrigerant Identifier Installed In Recovery and Recycling Equipment For Use With Mobile A/C Systems

Interior Climate Control MAC Supplier Committee

- J2064 R-134a and R-1234yf Refrigerant Automotive Air-Conditioning Hose and Assemblies

Interior Climate Control OEM Committee

- J2842 R-1234yf and R744 Design Criteria and Certification for OEM Mobile Air Conditioning Evaporator and Service Replacements

Controls and Displays Standards Committee

- J2948 Keyless Ignition Control Design Guidelines

Cooling Systems Standards Committee

- J2849 Quick Connect Fluid Coupling Specification for Water/Glycol Coolant System Interconnect
- J2867 Laboratory Testing of Vehicle Electric Cooling Fan Assemblies for Airflow Performance
- J2914 Exhaust Gas Recirculation (EGR) Cooler Nomenclature and Application

Lighting Standard Practices Committee

- J2938 LED Light Source Tests and Requirements Standard

Light Vehicle Exterior Sound Level Standards Committee

- J2920 Measurement of Tire/Pavement Noise Using Sound Intensity

DSRC Vehicle Interface Methodology Committee

- J2922 DSRC Vehicle Interface Methodology

Adaptive Devices Standards Committee

- J2930 Information Report for Hoists used with an Unoccupied Mobility Device

DSRC (Dedicated Short Range Communication) Technical Committee

- J2945 Dedicated Short Range Communication (DSRC) Minimum Performance Requirements

Glazing Materials Standards Committee

- J2870 Standard Practice on Labeling of Non-tempered Vehicle Windows
- J2871 Standard Practice on Markings of Modified Glazings
- J2877 Standard for Aftermarket Windshield Contamination Mitigation

Light Duty Vehicle Performance and Economy Measure Committee

- J2951 Drive Quality Evaluation for Chassis Dynamometer Testing

Road Illumination Devices Standards Committee

- J2838 Full Adaptive Forward Lighting System

Vehicle Safety Systems Group, Motor Vehicle Council

Safety And Human Factors Steering Committee

- J2831 Development of Design & Engineering Standards for In-Vehicle Text Messages
- J2944 Driving Performance Definitions

Children's Restraint Systems Committee

- J2939 Child Restraint Systems/Latch Terminology – Glossary of Terms

Dummy Testing And Equipment Committee

- J2854 User's Guide for the Six Month Old Infant Dummy - CRABI (EA-28)
- J2855 Instrumented Arm User's Manual (EA-36)

Upcoming Standards Technical Committee Meetings

A current schedule can be found on the SAE website.



<http://www.sae.org/standards/>

...continued on page 14

...continued from page 13

J2857	Hybrid III 3-Year Old Child Dummy User's Manual (EA-31)
J2858	Hybrid III Ten-Year-Old Child Dummy User's Manual (EA-34)
J2859	Hybrid III Large Male Drawing Package (EA-32)
J2860	User's Manual for the Hybrid III Large Male Test Dummy (EA-26)
J2861	CRABI Twelve- and Eighteen-Month-Old Infant Dummies User's Manual (EA-27)
J2862	User's Manual for the Small Adult Female Hybrid III Test Dummy (EA-25)
J2900	Calibration and Linearization methods for Potentiometers used in ATD
J2915	H-III5F Spine Box Update to Eliminate Noise
J2921	H-III5F Chest Jacket Harmonization

Human Accommodation and Design Devices Standards Committee

J2896	Motor Vehicle Seat Performance Measures
J2897	Motor Vehicle Seating Glossary

Human Biomechanics and Simulations Standards Steering Committee

J2782	Performance Specifications for a 50th Percentile Male Pedestrian Research Dummy
J2868	Pedestrian Dummy Full Scale Test Results and Resource Materials

Impact And Rollover Test Procedure Standards Committee

J2906	Linear Impactor Calibration Procedure
J2926	Rollover Test Methods
J2937	Linear Impact Procedure for Occupant Ejection Protection

Vehicle Sound for Pedestrians

J2889	Vehicle Sound Measurement at Low Speeds
J2889/1	Measurement of Minimum Noise Emitted by Road Vehicles

Electrical Systems Group, Motor Vehicle Council

Cable Standards Committee

J2840	High Voltage Shielded Primary Cable
-------	-------------------------------------

Circuit Protection and Switch Device Steering Committee

J2736	Blade Type Electric Fuses
J2741	Fuses with Female Contacts – 32V System
J2778	Fuses with Bolt Down Contacts – 32V Systems
J2781	Fuses with Bolt-in Contacts with Rated Voltage of 450V

Automotive Electronic Systems Reliability Standards Committee

J2820	Modeling and Simulation methods for Automotive Electrical/Electronic Components and Systems
J2837	Environmental Conditions and Design Practices for Automotive Electronic Equipment

Embedded Software Standards Committee

J2866	SafeCAN: Using CAN in Real-time Deterministic and Safety –critical Applications
-------	---

Vehicle Architecture for Data Communications Standards Committee

J2813	Flexray For Vehicle Applications
J2814	FireWire for Vehicle Applications
J2824	Goldilocks Serial Communication Protocol Design

Vehicle E E System Diagnostic Standards Committee

J2534/3	Conformance Test Cases
J2901	Misfire Generator Functional Requirements

Materials, Processes & Parts Council

Ground Vehicle Reliability Committee

J2924	Engineering Probabilistic Methods - Basic Concepts, Models and Approximate Methods for Probabilistic Engineering Analysis
J2925	System Reliability and Integration
J2940	Use of Model Verification and Validation in Product Reliability and Confidence Assessments

Acoustical Materials Committee

J2883	Laboratory Measurement of Random Incidence Sound Absorption Tests Using a Small Reverberation Room
J2934	Laboratory Measurement of Tortuosity and Characteristic Lengths of Acoustical Materials

Material Properties Committee

J2821	Standard Text File Format for Exchange of Stress-Strain Data from Tensile, Compression, or Fatigue Tests
J2822	Standard Text File Data Format for Reporting and Exchange of Lap-Shear / Coach-Peel Spot Welded or Point Fastened Specimen Fatigue Data
J2823	Standard Text File Data Format for Reporting and Exchange of Lap-Shear / Coach-Peel Fusion Welded Specimen Fatigue Data

Metallic Tubing Committee

J2551-1	Hydraulic Tube Assemblies Design and Fabrication
J2551-2	Hydraulic Tube Assemblies General Specifications and Performance Requirements
J2551-3	Hydraulic Tube Assemblies Procurement

Sheet and Strip Steel Committee

J2947	Categorization and Properties of Dent Resistant, Structural, High Strength Low Alloy, and Recovery Annealed Sheet Steels
-------	--

Specialized Vehicle & Equipment Council

Personal Watercraft Committee

J2882	Top Speed Measurement of Personal Watercraft
-------	--

Ship Systems – Fasteners Committee

J2885	Fastener Specification – Vibration-Proof Bolt-Nut System
-------	--

Call for volunteers

The important work of the SAE Standards Development Program depends on people like you, volunteers from industry who give their time and expertise to serve on SAE technical committees. And, while the committees are some 7,000 volunteers strong, there is a current need for participants in the areas noted below.

Chassis Systems Electric Power Steering Committee; Hydraulic Brake Components Committee

Electrical Circuit Protection Committee; Vehicle Electric Power Supply Committee

Fuel Cells Fuel Cell Performance

Green Systems Technology Group As related to chemicals and materials that are benign to human health and the environment; materials as related to sustainability.

Materials Acoustical Materials Committee; Metals Technical Committee; Carbon and Alloy Steels Committee; Automotive Adhesives and Sealants Committee; Plastics Committee; Spring Committee; Vibration Control Committee

Powertrain Starter Battery Committee; Gasoline Fuel Injection; Belt Drive; Battery Standardization

Vehicle Engineering Systems Odometer / Speedometer

Vehicle Safety Systems Safety System Components Standards Advisory Group; Inflatable Restraints Standards Committee

New committee chairs & vice chairs

Robert Czajkowski, Chair – Emergency Warning Lights and Devices Standards Committee; Federal Signal Corp

Richard Deering, Chair – Vehicle Safety Systems Group; Consultant

Ernest Dykeman, Chair – Test Methods & Equipment Standards Committee; Intertek

Cliff Fietzek, Chair – J2953 Task Force under the Hybrid Committee; BMW

Jesus Gomez, Chair – Truck and Bus Electrical Systems Committee; Daimler Trucks North America LLC

Joseph Jaklic, Chair – Lighting Coordinating Editorial Advisory Group; Osram Sylvania Products

Jason Leuschen, Vice Chair – Truck and Bus Aerodynamics and Fuel Economy Committee; National Research Council Canada

John Mourer, Chair – Inflatable Restraints Standards Committee; Key Safety Systems, Inc.

Jim O'Brien, Chair – Truck and Bus Hydraulic Hybrid Committee; NRG Dynamix

Tom Poorman, Vice Chair – Test Methods & Equipment Standards Committee; North American Lighting Inc.

Thomas Schmidt, Chair – Cooling Systems Committee; Horton Inc.

Jesse Schneider, Chair – J2954 Task Force under the Hybrid Committee; Proton

Richard Wood, Chair – Truck and Bus Aerodynamics and Fuel Economy Committee; Solus-Solutions and Technologies

Standards Consortium Administration

With over a century of experience providing the common engineering requirements for new mobility vehicles, SAE can be a key component in developing any consortium-based activity, providing the expertise and worldwide technological and human resources to help you turn your vision into a successful operating reality.

Each client maintains its desired degree of autonomy, flexibility, and control. Client/project-tailored services include:

- A legal framework
- Fiscal oversight
- Policy and procedure development
- Publishing and distribution services
- Marketing and public relations activities

Volunteer recognition: Document Sponsors

(February – October 2010)

The SAE Standards Development Program thanks its Document Sponsors. These individuals have served not only as active committee members but have dedicated their time and talent in guiding the development of standards documents from the preparation of all drafts through balloting and publication.

Thank you.

Poul Andersen, Poul Andersen Consulting
Jim Angel, Mine Safety & Health Administration
Paul Baltusis, Ford Motor Co
John Below, Denton ATD Inc
Fred Bernier, Arctic Cat Inc
Raymond Brach
Earnest Brown, Defense Supply Center Columbus
Peter Byk, SAE International
Paul Casperson, Caterpillar Inc
Jack Champaigne, Electronics Inc
Pete Chisholm, Mercury Marine
William Collins, UTC Fuel Cells
Paul DeStefano, Valeo Sylvania LLC
Ernest DeVincent, Getrag Corp
Paul Dewitt, Eaton Corp
Randy Dickerman, Chrysler Group LLC
Michael Dinsmore, Acoustical Consulting Services
Guy Dorleans
Timothy Duncan, Link Engineering Co
Michael Duoba, Argonne National Laboratory
Douglas Durant, John Deere Product Engineering Center
Jimmy Eavenson, Commercial Turf Products Ltd
Allan Feit
Gregory Felder, Michelin North America Inc
Steve Ferrero
Keith Frazier, Ford Motor Co
Daniel Fritz
Rob Frost, Cummins Inc
Gregory Gillham, Detroit Diesel Corp
Jeff Glodich, Ford Motor Co
James Harper, TechmerPM
William Hill,
Roger Holliday, Federal Mogul Corporation
Ryan Hoover, IMMI (Indiana Mills & Mfg Inc)
Charles Howard, Ultra Electronics-USSI
David Howland, General Motors LLC
Frederick Kelley, Prestolite Wire LLC
John Kinstler
Robert Krouse, General Motors LLC
Lee Lackey, Noregon Systems Inc
J Lackore, Oshkosh Corp
Ty Lasky, Univ of California-Davis
James Lawlis, Ford Motor Co
Gerald Lawruk, Link-Radlinski Inc
Thomas Lockwood, General Motors LLC
Michael Lyons, Caterpillar Inc
James McGowan, TRW Vehicle Safety Systems Inc
Danny Minikey, Gentex Corp
Luis Moreiras
Steve Neva, Bobcat Co
Arnold Nielsen
Dennis Novack, Chrysler Group LLC
Hiralal Patel
Michael Piscitelli, Sapphire Technical Solutions L.L.C.
Charles Polley, Grote Industries LLC
Thomas Poorman, North American Lighting Inc
Thomas Pugh, Yamaha Motor Corp USA
Roger Reini, Ford Motor Co
Lawrence Rice, Osram Sylvania
Dan Richardson, Cummins Inc
Phillip Robinson
Walter Ross
Gary Rupp
Pranab Saha, Kolano and Saha Engineers Inc
Lane Salins
Sandeep Saxena, Hella North America Inc
Robert Schade, Tru-Line Manufacturing Co
Dennis Scharer, Ervin Industries Inc
Richard Scholer, Ford Advanced Vehicle Technology
Jeffery Smith, Vee Engineering
Donald Smolenski, General Motors LLC
Mark Stepper, Cummins Inc
Daniel Stern, Driving Vision News
Brett Stone, Gates Corp
Joseph Stratton, Leading Edge Hydraulics
James Szudy, Bendix Commercial Vehicle Systems LLC
Bart Terburg, Osram Sylvania
Paul Tuckner, Grace Technologies
Robert Van Houten, Republic Engineered Products LLC
Joel Walter Jacobs
Wayne Wilcox, Wayne Wilcox Engineering Consultant
Kimball Williams, DENSO International America Inc
Xiaobo Yang, Oshkosh Corporation
Garold Yurko, Tyco Electronics Corp

Gain a competitive advantage. Impact your bottom line. Invest in standards.

Standards. The workhorse documents that commonize practices, processes, and products throughout the ground vehicle industry are also paramount to the advancement of technology. Standards documents are more than the practices of today. They account for history and anticipate the future of technology, regulation, and business. The direct benefits of standards are simple in concept but extraordinary in their global impact toward ever-safer, cleaner, more efficient worldwide transportation.

Technical standards enable and enhance:

- consistent and clear expectations for product performance and reliability
- regulatory compliance
- consistent product quality
- compatibility and interoperability
- more efficient procurement

Standardization also:

- lowers trade barriers
- lowers purchasing costs
- decreases design time
- promotes innovation
- increases new technology speed to market

Because industry can rely on standards for globally harmonized solutions to common issues, individual companies can devote more time and resources to advance their proprietary technology. In this way, standards help foster competition, which advances the collective technology of industry and in turn, creates the need for new and revised standards. This has been the cycle for ground vehicle standards solutions.

And, at the heart of those solutions is SAE International, the recognized leader in mobility engineering for over 100 years. It plays the central role in developing North American automotive standards and a key role in bringing US documents to the global standards table, working hand-in-hand with the global community to advance industry.

While participation in the standards development process helps the advancement of the industry it can also contribute to the advancement of your company and personal career.

Corporate Benefits

- Input into the direction of the standards
- Competitive intelligence through advance knowledge of standard direction
- Advance warning of pending regulations and influence over the technical basis of the regulation
- Insight into the competitive environment
- Product liability protections
- Strong relationships with customers and suppliers
- Association with the leading society for advancing mobility technology

Individual Benefits

- Professional development from continuous working contact with peers
- Peer recognition for advancing your industry's sectors technologies
- Excellent networking and learning opportunities from product developers/users around the world
- Discover emerging technologies
- Contribute to the industry's body of technical knowledge

To learn more about SAE Technical Standards Development—and for a schedule of Technical Committee meetings—visit us on the web at <http://www.sae.org/standards/>

Become a better you. Volunteer for an SAE Standards Development Committee.

