



SURFACE VEHICLE RECOMMENDED PRACTICE

J2800™

APR2016

Issued 2007-06
Stabilized 2016-04

Superseding J2800 JUN2007

Laboratory Corrosion/Fatigue Testing of Vehicle Suspension Coil Springs

RATIONALE

The technical report covers technology, products, or processes for which technical expertise no longer resides in the owning committee.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Materials, Processes and Parts Council and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2016 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
<http://www.sae.org>

SAE WEB ADDRESS:

Full document details: SAE J2800_201604

SAE values your input. To provide feedback
on this Technical Report, please visit
http://www.sae.org/technical/standards/J2800_201604

Documents

Document Sharing Hub

FOREWORD

This laboratory test for combined corrosion and fatigue testing of vehicle suspension coil springs is based on the work of the SAE Corrosion/Fatigue Test Task Force. Results from this test will provide an assessment of the performance of coil springs in the cyclic corrosion environment defined by SAE J2334 in combination with mechanical durability testing.

1. SCOPE

This lab test procedure should be used when evaluating the combined corrosion and fatigue performance for a particular coating system, substrate, process and design. The test is intended to provide an A to B comparison of a proposed coil spring design versus an existing field validated coil spring when subjected to the combined effects of corrosion and fatigue. The corrosion mechanisms covered by this test include general, cosmetic and pitting corrosion. Fatigue testing covers the maximum design stress and/or stress range of the coil spring design (typically defined as excursion from jounce to rebound positions in a vehicle). The effects of gravel and heat are simulated by pre-conditioning the springs prior to fatigue testing. Time dependant corrosion mechanisms such as stress corrosion cracking are not addressed with this test.

2. REFERENCES

2.1 Applicable Publications

The following specifications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest version of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J400 Test for Chip Resistance of Surface Coatings

SAE J2334 Laboratory Cyclic Corrosion Testing