

ANSI/OPEI B71.10-2013

American National Standard

*for Off-Road Ground-Supported
Outdoor Power Equipment –
Gasoline Fuel Systems –
Performance Specifications and
Test Procedures*



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ANSI/OPEI B71.10-2013

(revision of
ANSI/OPEI B71.10-2008)

American National Standard
for Off-Road Ground-Supported
Outdoor Power Equipment –

**Gasoline Fuel Systems –
Performance Specifications
and Test Procedures**

Sponsor

Outdoor Power Equipment Institute

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American National Standard

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Foreword (This foreword is not part of American National Standard ANSI/OPEI B71.10-2013.)

This standard is a revision of American National Standard for Small Off-Road Ground-Supported Outdoor Power Equipment - Gasoline Fuel Systems - Performance Specifications and Test Procedures, ANSI B71.10-2008. The first edition of this standard was approved and published by the American National Standards Institute in 2008. This is the first revision to the original standard.

The present revision was prepared by the Outdoor Power Equipment Institute's (OPEI) Fuel Systems Committee, as part of OPEI's continuing work on standards.

A summary of the principal changes included in this revision follows:

- Added explicit alternate leak test pressures for Leak Testing;
- Added an additional performance test for Fuel Overflow test;
- Changed the Elevated Temperature Hot Fuel Soak test applicability to include all fuel tanks manufactured with linear HDPE, regardless of manufacturing process;
- Revised the Elevated Temperature Hot Fuel Soak test acceptance criteria;
- Further clarified the Fuel Line Assembly Tensile Test procedure.

Consensus for this standard was achieved by use of the Canvass Method. This standard contains two annexes that are informative and are not considered requirements of this standard.

Suggestions for improvement of the standard will be welcomed. They should be sent to the Outdoor Power Equipment Institute, 341 South Patrick Street, Alexandria, VA 22314.

The following parties, recognized as having an interest in the standardization of safety requirements for off-road ground-supported outdoor power equipment were contacted prior to the approval of this standard. Inclusion in the list does not necessarily imply that the organization concurred with the submittal of the proposal to ANSI.

Mr. Devin Anderson - Consumer

Mr. Jeff Davis - Consumer

Mr. Dan Nielsen - Consumer

Mr. Russ O'Daly - Consumer

Mr. Steve Scholten - Consumer

Mr. Joseph Harding, Portable Generator Manufacturers Association - General Interest

Mr. Han Lim, Consumer Product Safety Commission - General Interest

Mr. Steven D. Marty, Southwest Research Institute - General Interest

Mr. Andy Meloeny, Testing Services Group - General Interest

Mr. Adam Bechtold, Kubota Corporation - Producer

Mr. Michael Huhman, Scag Power Equipment - Producer

Mr. James Jongkind, American Honda - Producer

Mr. Paul R. Reger, Flambeau, Inc.- Producer

Mr. Roger Smith, Walbro Engine Management - Producer

American National Standard for Off-Road Ground-Supported Outdoor Power Equipment – Gasoline Fuel Systems – Performance Specifications and Test Procedures

1 Scope

This standard describes performance based specifications and test procedures applicable to the gasoline fuel systems for off-road ground-supported outdoor power equipment with spark ignition engines of less than one liter displacement. The effective implementation date of this standard shall be two (2) years after the publication date and shall apply to all products built after that date. Manufacturers may also comply with the requirements of this standard anytime after the publication date.

Note: The tests described in this standard involve the use of hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

EPA 40 CFR Part 90, *Control of Emissions from Nonroad Spark-Ignition Engines at or Below 19 Kilowatts*

EPA 40 CFR Part 1054, *Control of Emissions from New, Small Nonroad Spark-Ignition Engines and Equipment*

NFPA 497-2004, *Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas, 2004 Edition*

NFPA 70-2011, *National Electrical Code®*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 Fuel Tank

A storage vessel constructed of any material that is an integral part of the product that is used to supply fuel to engines regulated by EPA 40 CFR Parts 90 and 1054. This is distinct from separate fuel storage vessels used for refuelling and not a part of the product (e.g., portable refueling containers).