SFI FOUNDATION INC.

QUALITY ASSURANCE SPECIFICATIONS™

SFI SPECIFICATION 14.1 EFFECTIVE: JANUARY 29, 1992*

PRODUCT: Supercharger Restraint Devices

1.0 GENERAL INFORMATION

1.1 This SFI Specification establishes uniform test procedures and minimum standards for evaluating and determining performance capabilities for Supercharger Restraint Devices used by individuals engaged in competitive motorsports.

1.2 The procedures, test evaluations and standards contained herein, are intended only as minimum guidelines for construction and evaluation of products. Certification that products meet such minimum standards is made by the product manufacturer and products are not certified, endorsed or approved by SFI under this program.

1.3 Use of the "This Manufacturer Certifies That This Product Meets SFI Specification 14.1" logo/designation, the authorized artwork style, or conventional lettering by a manufacturer, on a subject product, is intended only to indicate that the manufacturer of the product has represented that they have submitted the product to the recommended tests, with positive results, in compliance with the standards established herein.

1.4 This SFI Specification requires a demonstration that the product of a manufacturer meets or exceeds the requirements when the manufacturer enters the program; and on a periodic basis thereafter. Any manufacturer may participate in the program by providing Supercharger Restraint Devices that meet or exceed the SFI Specification 14.1 test standards, by complying with the requirements of the SFI Specification 14.1 program, and by signing a licensing agreement with the SFI Foundation, Inc.

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.

1.5 Compliance with this specification is entirely voluntary. However, when a manufacturer provides Supercharger Restraint Devices in compliance with all requirements of the SFI Specification 14.1 and enters into the licensing agreement with the SFI Foundation, Inc., they may certify that compliance with such standards is in accordance with the guidelines established herein.

1.6 Manufacturers wishing to participate in the program, in addition to the other requirements of this specification, must label each of their products with the manufacturer's name, trademark or symbol as well as the date of manufacture of the product.

1.7 No manufacturer may display the SFI logo/designation on their product unless the manufacturer has signed a licensing agreement with SFI and has successfully complied with all the requirements of this specification and the self-certification program.

2.0 DEFINITIONS

2.1 Supercharger Restraint Devices are used to constrain the supercharger in the event of separation from the engine due to an explosion.

2.2 Supercharger Restraint Devices shall be inspected every two years by the manufacturer for recertification. Any strap made from material that is sensitive to ultraviolet light shall be replaced at that time.

2.3 Any restraint device pertaining to this specification shall remain as constructed by the original manufacturer and not modified.

3.0 CONSTRUCTION

All types of restraint devices shall have separation straps and separation strap engine attachments. Separation straps are used to constrain the supercharger in case of detachment from the engine. The separation straps shall be secured to the engine with each strap having its own attachment. A minimum of four separation straps shall used, one on each corner of the supercharger.

3.1 SEPARATION STRAPS

Straps shall be made of a material with a minimum elongation of 20 percent. If the strap material used is subject to fire damage and if it is required by the sanctioning body implementing this specification, the straps shall have sheathing. The sheathing, which the manufacturer represents to be fire retardant, shall completely cover the otherwise exposed strap material.

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.

3.2 SEPARATION STRAP ENGINE ATTACHMENTS

The bracket for each separation strap attachment shall be connected to the engine by a minimum of two 0.375 inch (10 millimeter {mm}) bolts or studs (SAE Grade 5, or Class 9.8). The strap attachments can also be integral to a one piece flange running the full length of the exhaust header. This method shall use all available header bolts or studs through the flange for connection to the engine. Any strap attachment hardware shall be separate from the exhaust header. Welding of attachments to the exhaust header is not acceptable.

3.3 TYPES

3.3.1 TYPE 1 - SINGLE ANCHOR PLATE

This type shall have an anchor plate between the lower surface of the injector body and the upper surface of the supercharger case.

A. ANCHOR PLATE

The plate shall be made of a material with a minimum elongation of 12 percent. The plate shall have a minimum of four individual attachment points for the separation straps.

4.0 MODEL CLASSIFICATION

Any variation of the original design, i.e. construction, anchor plate, straps or mounting method is considered a model change.

5.0 TESTING

5.1 TENSILE STRENGTH

5.1.1 SAMPLES

Test samples shall be fully processed new restraint devices which are representative of restraint devices currently produced or to be produced. All necessary mounting hardware along with mounting instructions shall be supplied with the restraint device. Although the strap material may require sheathing, it is optional for testing.

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.

5.1.2 APPARATUS

A. EQUIPMENT

The test machine must be capable of applying a minimum tensile load of 11,250 pounds {lb} (510kg) with an excursion travel of one to five inches per minute (2.5-12.7 cm/min) and must have adequate instrumentation to verify the test load. The test machine must also be in calibration and traceable to the National Bureau of Standards.

B. TEST FIXTURE

The test fixture must duplicate the mounting method of the supercharger restraint device and be capable of withstanding the applied load.

5.1.3 PROCEDURES

A. The supercharger restraint device shall be mounted to the test fixture per manufacturer's instructions with the supplied attachment hardware.

B. The test fixture shall be installed into the test machine. The strap attachments shall be mounted and oriented in the same position and connected as in an actual vehicle.

C. Using an excursion rate between one to five inches per minute (2.5-12.7 cm/min) apply an increasing load to the restraint device. Continue until a load of 11,250lb (510kg) is applied. Hold at that level for ten seconds, then release the load.

6.0 PROOF OF COMPLIANCE

Supercharger Restraint Device manufacturers are required to provide the following information to enroll in this program:

6.1 TEST RESULTS

Test results shall be documented in a test report.

6.1.1 TENSILE STRENGTH

The restraint device shall pass the tensile strength test if it is able to maintain the test load for ten seconds.

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.

7.0 TEST REPORTS

A separate test report, or set of test reports if required, shall be submitted for each product model. If more than one test facility is required to complete all necessary tests, then a separate test report shall be submitted from each one. A test report shall be submitted for each component, if tested separately. The test facility shall assign a unique number to each test report. This number along with the report date and page number shall appear on each page. Each test report shall include:

7.1 RELEVANT INFORMATION

7.1.1 Manufacturer's name, contact name, address and telephone number.

7.1.2 Name, address and telephone number of the test facility.

7.1.3 Name and signature of the responsible test supervisor.

7.1.4 Actual date of the test.

7.1.5 Specification number and effective date.

7.1.6 Product name, description and model designation.

7.1.7 Component name and description.

7.1.8 Photographs of the submitted part.

7.2 TESTS

Each test conducted shall be listed showing the test name, apparatus used, procedure used and test results obtained along with any other appropriate information.

7.3 AUTHENTICATION

Test reports shall be authenticated and stamped by a Professional Engineer who is registered in the state in which the testing is conducted. If necessary, SFI may allow an equivalent entity to provide authentication.

8.0 INITIAL DESIGN VALIDATION

To receive initial recognition from SFI as a participant in the SFI Specification 14.1 Program, the manufacturer must submit to SFI all information delineated in the Proof of Compliance section. This information shall be provided for each Supercharger Restraint Device model offered by the applicant that is to be included in the program. Any change in

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.

design, materials and/or methods of manufacturing not specifically excluded is considered a model change and, therefore, requires initial design validation.

9.0 PERIODIC REVALIDATION

Test reports with successful test results must be submitted to SFI at least once every 24 month period following the date of the initial design validation test for each model of Supercharger Restraint Device manufactured by the participant. If multiple test reports are required to obtain all test results, then the earliest test date shall be used to determine when the periodic revalidation reports are due. Also, SFI shall retain the option to conduct random audit reviews. SFI shall purchase the product on a commercial basis and test for compliance to the specification. The submitting manufacturer shall reimburse SFI for all audit costs.

10.0 CERTIFICATION OF COMPLIANCE

Upon demonstration of successful compliance with all the requirements of the specification and the self-certification program and upon entering the licensing agreement with SFI, the manufacturer may advertise, present and offer the Supercharger Restraint Devices for sale with the representation that their product meets the SFI Specification 14.1. Continuing certification is contingent upon the following additional considerations: (1) the product shall be resubmitted for testing following any change in design, materials and/or methods of manufacturing not specifically excluded, and (2) periodic revalidation test reports are submitted when due to SFI.

11.0 CONFORMANCE LABELS

The conformance label is a patch. A patch shall be attached to each separation strap, facing outward. The month and year of manufacturer shall appear on each patch.

12.0 DECERTIFICATION

Participating manufacturers are subject to decertification when not in compliance with the requirements of this program or when their products are not in compliance with the requirements of this specification. Decertification will provide SFI the right to effect any and all remedies which are available to SFI in the licensing agreement.

13.0 APPEAL PROCEDURE

In the event of decertification, the manufacturer is entitled to an appeal of the decision of SFI. Requests for appeal must be received by SFI no later than thirty days following receipt of the notice of decertification. Appeals of such decisions will be heard at the next meeting of the Board of Directors of SFI.

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.

14.0 STATEMENT OF LIMITATIONS

Testing procedures and/or standards contained in this specification are intended for use only as a guide in determining compliance with the minimum performance requirements as defined herein. The granting and assignment of the "This Manufacturer Certifies That This Product Meets SFI Specification 14.1" logo/designation is in no way an endorsement or certification of product performance or reliability by SFI. SFI, its officers, directors and/or members assume no responsibility, legal or otherwise, for failure or malfunctions of a product under this program.

15.0 COSTS

All costs involved in this program will be absorbed by the submitting manufacturer.

16.0 COMPLIANCE PERIOD

As this specification is revised to reflect changes in technology and/or field conditions, to remain current, participating manufacturers in the SFI Specification 14.1, Supercharger Restraint Device, Program, must demonstrate full compliance with the requirements of this specification within ninety (90) days of the latest effective date.

---

*Original Issue:	October 1, 1984
Edited:	June 19, 1989
Revised:	October 26, 1989
Revised:	January 29, 1992
Reviewed:	February 2, 1994
Reviewed:	June 9, 1995
Reviewed:	November 6, 1997
Reviewed:	February 4, 1999
Reviewed:	August 30, 2001
Reviewed:	December 6, 2003
Reviewed:	December 8, 2007
Reviewed:	December 12, 2009
Reviewed:	December 2, 2011
Reviewed:	December 12, 2013
Reviewed:	December 10, 2015
Reviewed:	December 7, 2017
Reviewed:	December 12, 2019
Edited:	March 26, 2020
Reviewed:	December 9, 2021
Reviewed:	December 7, 2023
Reviewed:	December 11, 2025
Edited:	March 9, 2026

Copyright © 2026 by the SFI Foundation, Inc. All rights reserved. Reproduction in any form without written permission of SFI is prohibited.