# U.S. DEPARTMENT OF TRANSPORTATION

## NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

# LABORATORY TEST PROCEDURE

# **FOR**

# **FMVSS 110**

Tire Selection and Rims for Motor Vehicles With a GVWR of 4,536 Kilograms or Less (For Light Truck Type Vehicles Only)



ENFORCEMENT
Office of Vehicle Safety Compliance
Room 6111, NVS-220
400 Seventh Street, SW
Washington, DC 20590

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# **REVISION CONTROL LOG**

# FOR OVSC LABORATORY TEST PROCEDURES

# TP-110T TIRE SELECTION AND RIMS (For Light Truck Type Vehicles Only)

TEST P	PROCEDURE	FMVSS	3 110T		
REV. No.	DATE	AMENDMENT	EFFECTIVE DATE	DESCRIPTION	
00	3/10/05	67FR69600 11/18/02	9/1/03	Final Rule	
		68FR33655 6/5/03	9/1/04	Final Rule - response in part to petitions for reconsideration. <b>Effective date delayed.</b>	
		68FR37981 6/26/03	9/1/04	Final Rule – correcting amendment.	
		69FR31306 6/3/04	9/1/05	Final Rule - response in part to petitions for reconsideration.	
		69FR51399 8/19/04	9/1/05	Correcting Amendment.	
01	12/15/05	70FR14420 3/22/05	9/1/05	Final Rule – response to petitions for reconsideration – technical amendment.	
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## 1. PURPOSE AND APPLICATION

The Office of Vehicle Safety Compliance (OVSC) provides contractor laboratories with Laboratory Test Procedures as guidelines for obtaining compliance test data. The data are used to determine if a specific vehicle or item of motor vehicle equipment meets the minimum performance requirements of the subject Federal Motor Vehicle Safety Standard (FMVSS). The purpose of the OVSC Laboratory Test Procedures is to present a uniform testing and data recording format, and provide suggestions for the use of specific equipment and procedures. These Laboratory Test Procedures do not constitute an endorsement or recommendation for use of any product or method. If any contractor views any part of an OVSC Laboratory Test Procedure to be in conflict with a FMVSS or observes deficiencies in a Laboratory Test Procedure, the contractor is required to advise the Contracting Officer's Technical Representative (COTR) and resolve the discrepancy prior to the start of compliance testing.

The OVSC Laboratory Test Procedures are not intended to limit or restrain a contractor from developing or utilizing any testing techniques or equipment that will assist in procuring the required compliance test data. However, the application of any such testing technique or equipment is subject to prior approval of the COTR.

**NOTE:** The OVSC Laboratory Test Procedures, prepared for the limited purpose of use by independent laboratories under contract to conduct compliance tests for the OVSC, are not rules, regulations or NHTSA interpretations regarding the meaning of a FMVSS. The Laboratory Test Procedures are not intended to limit the requirements of the applicable FMVSS(s). In some cases, the OVSC Laboratory Test Procedures do not include all of the various FMVSS minimum performance requirements. Recognizing applicable test tolerances, the Laboratory Test Procedures may specify test conditions that are less severe than the minimum requirements of the standard. In addition, the Laboratory Test Procedures may be modified by the OVSC at any time without notice, and the COTR may direct or authorize contractors to deviate from these procedures, as long as the tests are performed in a manner consistent with the standard itself and within the scope of the contract. Laboratory Test Procedures may not be relied upon to create any right or benefit in any person. Therefore, compliance of a vehicle or item of motor vehicle equipment is not necessarily guaranteed if the manufacturer limits its certification tests to those described in the OVSC Laboratory Test Procedures.

## 2. GENERAL REQUIREMENTS

This Test Procedure applies only to Light Truck Type Vehicles (Multipurpose Passenger Vehicles, Buses and Trucks) with a Gross Vehicle Weight Rating (GVWR) of 4,536 kg or less and manufactured on or after September 1, 2005, and before June 1, 2007. This Laboratory Test Procedure is not intended for use in testing trailers, motorcycles or low speed vehicles.

Applicable vehicles are to be equipped with tires that meet the requirements of FMVSS 109 or 119 and be equipped with rims that are listed by the manufacturer of the tires as suitable for use with those tires.

The sum of the maximum load ratings of tires fitted to an axle is required to be not less than the gross axle weight rating (GAWR) of the axle system as specified on the vehicle's certification label. If a passenger car tire is used, its load rating is reduced by dividing by 1.10 before calculating the sum.

A vehicle placard is required and an optional tire inflation pressure label may be affixed to each applicable vehicle.

Vehicle rims are to be marked appropriately.

49 CFR 567, *Certification*, requires that the GVWR is not to be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg times the vehicle's designated seating capacity. However, for school buses, the minimum occupant weight allowance is 54 kg.

49 CFR Part 575 – Consumer Information Regulations, sections 575.6(a)(4) and (5) require each vehicle owner's manual or other document to provide discussions or statements relating to vehicle labeling, tires and loading.

## Refer to TP-110P for testing passenger cars.

#### METRIC SYSTEM OF MEASUREMENT

As a general rule, use of the metric system of weights and measures is preferred. Performance parameters and test conditions in FMVSS are now specified in metric units. In this Laboratory Test Procedure metric values may be followed by English units only for reference (not necessarily equal). If test equipment is not available for direct measurement in metric units, the test laboratory calculates the exact metric equivalent by means of a conversion factor carried out to at least five significant digits before rounding consistent with the specified metric requirement. Metric units are to be used in the Final Test Reports.

## 3. SECURITY

The contractor will provide appropriate security measures to protect the OVSC test vehicles and parts during the entire compliance test program. The contractor is also financially responsible for any acts of theft and/or vandalism that occur during the storage of test vehicles. Security problems that arise are to be reported by telephone to the COTR and the Industrial Property Manager (IPM), Office of Contracts and Procurement, within two working days after the incident. A letter containing specific details of the security problem will be sent to the IPM (with copy to the COTR) within 4 working days. The contractor will protect and segregate all photographs and data that evolve from compliance testing. No information concerning the vehicle safety compliance test program may be released to anyone except the COTR, unless specifically authorized by the COTR or the COTR's Division Chief.

**NOTE:** NO INDIVIDUALS, OTHER THAN CONTRACTOR PERSONNEL DIRECTLY INVOLVED IN THE COMPLIANCE TESTING PROGRAM, ARE TO BE ALLOWED TO WITNESS ANY VEHICLE COMPLIANCE TEST UNLESS SPECIFICALLY AUTHORIZED BY THE COTR.

#### 4. GOOD HOUSEKEEPING

Contractors will maintain the indoor compliance testing area, test fixtures and instrumentation in a neat and clean condition with test instruments arranged in an orderly manner consistent with good test laboratory housekeeping practices.

#### 5. TEST SCHEDULING AND MONITORING

The contractor will submit a test schedule to the COTR prior to testing. Tests will be completed as required in the contract. Scheduling will be adjusted to permit sample motor vehicles to be tested to other FMVSS as may be required by the OVSC. All testing will be coordinated to allow monitoring by the COTR.

#### 6. TEST DATA DISPOSITION

The contractor will make all vehicle preliminary compliance test data available to the COTR on location within four hours after the test. Final test data, including digital printouts and computer generated plots (if applicable), will be made available to the COTR within 5 working days. Additionally, the contractor will analyze the preliminary test results as directed by the COTR. All backup data sheets, strip charts, recordings, plots, technician's notes, etc., will be either sent to the COTR or destroyed at the conclusion of each delivery order, purchase order, etc.

## 7. GOVERNMENT FURNISHED PROPERTY (GFP)

#### ACCEPTANCE OF TEST VEHICLE

The contractor has the responsibility of accepting each test vehicle whether delivered by a new vehicle dealership or another vehicle transporter. In both instances, the contractor acts in the OVSC's behalf when signing an acceptance of the test vehicle delivery. When a vehicle is delivered, the contractor will check to verify the following:

- A. All options listed on the "window sticker" are present,
- B. Tires and wheels are new and the same as listed,
- C. There are no dents or other interior or exterior flaws,
- D. The vehicle has been properly prepared and is in running condition,
- E. Owner's manual, warranty document, consumer information, and extra set of keys are present, and
- F. Proper fuel filler cap is supplied on the test vehicle.

A Vehicle Condition form will be supplied to the contractor when the test vehicle is transferred from the new vehicle dealership or between test contracts. The contractor will complete a Vehicle Condition form for each vehicle and deliver it to the COTR with the Final Test Report or the report will NOT be accepted for payment.

#### NOTIFICATION OF COTR

The COTR will be notified within 24 hours after a vehicle has been delivered. In addition, if any discrepancy or damage is found at the time of delivery, a copy of the Vehicle Condition form will be sent to the COTR immediately.

#### 8. CALIBRATION OF TEST INSTRUMENTS

Before the contractor initiates the safety compliance test program, a test instrumentation calibration system will be implemented and maintained in accordance with established calibration practices. The calibration system will include the following as a minimum:

A. Standards for calibrating the measuring and test equipment will be stored and used under appropriate environmental conditions to assure their

## 8. CALIBRATION OF TEST INSTRUMENTS.....Continued

accuracy and stability.

- B. All measuring instruments and standards will be calibrated by the contractor, or a commercial facility, against a higher order standard at periodic intervals NOT TO EXCEED TWELVE (12) MONTHS! Records, showing the calibration traceability to the National Institute of Standards and Technology (NIST), will be maintained for all measuring and test equipment.
- C. All measuring and test equipment and measuring standards will be labeled with the following information:
  - (1) Date of calibration
  - (2) Date of next scheduled calibration
  - (3) Name of the technician who calibrated the equipment
- D. A written calibration procedure will be provided by the contractor which includes as a minimum the following information for all measurement and test equipment:
  - (1) Type of equipment, manufacturer, model number, etc.
  - (2) Measurement range
  - (3) Accuracy
  - (4) Calibration interval
  - (5) Type of standard used to calibrate the equipment (calibration traceability of the standard must be evident)
- E. Records of calibration for all test instrumentation will be kept by the contractor in a manner which assures the maintenance of established calibration schedules. All such records will be readily available for inspection when requested by the COTR. The calibration procedure will be approved by the COTR before the test program commences.

Further guidance is provided in the International Standard ISO 10012-1, "Quality Assurance Requirements for Measuring Equipment" and American National Standard ANSI/NCSL Z540-1, "Calibration Laboratories and Measuring and Test Equipment - General Requirements".

## 9. PHOTOGRAPHIC DOCUMENTATION

Photographs for test reports will be 8 x 10 inches, and clearly illustrate the intended features. A tag, label, or placard identifying the test vehicle model, NHTSA number and date or item of equipment number and date will appear in each photograph and be legible. Each photograph will be labeled as to the subject matter. As a minimum, the following photographs will be included, as applicable.

- A. 3/4 frontal view from left side of vehicle
- B. 3/4 rear view from right side of vehicle
- C. Vehicle's Certification Label
- D. Vehicle Placard
- E. Tire Inflation Pressure Label
- F. Tire showing brand and model
- G. Tire showing size, load index and speed symbol
- H. Tire showing load rating and inflation pressure
- I. Tire showing serial number
- J. Rim markings
- K Close-up of interior seating position simulated occupant ballast
- L. Close-up of interior cargo simulated ballast
- M. View of vehicle on weight scales
- N. Pertinent Owner's manual pages
- O. Close-up of all test failure areas and components

## 10. DEFINITIONS

#### **GVWR**

The Gross Vehicle Weight Rating (GVWR) means the value specified by the manufacturer as the loaded weight of a single vehicle.

#### **GAWR**

The Gross Axle Weight Rating (GAWR) means the value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces.

#### **UVW**

The Unloaded Vehicle Weight (UVW) is the weight of a vehicle with maximum capacity of all fluids necessary for vehicle operation, but without cargo, occupants, or accessories that are ordinarily removed from the vehicle when they are not in use.

## 10. DEFINITIONS....continued

#### DOT SERIAL NUMBER

Serial number appearing on the sidewall of the tire near the rim required by FMVSS 109 or 119 which identifies the tire manufacturing plant, the tire size and type, and the week of manufacture.

EXAMPLE: DOT MAL9 ABC032.

## DOT SYMBOL

The letters "DOT" are part of the DOT serial number. This is the manufacturer's certification that the tire or rim meets or exceeds the requirements of FMVSS 109 or 119, and 120.

#### **CERTIFICATION LABEL**

A label required to be affixed to every motor vehicle in accordance with Part 567, *Certification*.

#### RIM DIAMETER

Nominal diameter of the bead seat.

#### RIM SIZE DESIGNATION

Rim diameter and width.

#### RIM TYPE DESIGNATION

The industry or manufacturer's designation for a rim by style or code.

#### **RIM WIDTH**

Nominal distance between rim flanges.

#### **WEATHER SIDE**

The surface area of the rim not covered by the inflated tire.

### VEHICLE CAPACITY WEIGHT

The rated cargo and luggage load plus 68 kilograms times the vehicle's Designated Seating Capacity (DSC).

## 11. PRETEST REQUIREMENTS

#### IN-HOUSE COMPLIANCE TEST PROCEDURE

Prior to conducting any compliance tests, contractors are required to submit a detailed in-house compliance test procedure and equipment list to the COTR which includes a step-by-step description of the methodology to be used and a detailed check-off list. Written approval will be obtained from the COTR before commencing testing so that all parties are in agreement. The contractor's test procedure will contain a complete listing of test equipment and a detailed check-off list. There will be no contradiction between the OVSC Laboratory Test Procedure and the contractor's in-house test procedure. The list of test equipment will include instrument accuracy and calibration dates.

#### TEST DATA LOSS

A compliance test is not to be conducted unless all of the various test conditions specified in the applicable OVSC Laboratory Test Procedure have been met. Failure of a contractor to obtain the required test data and to maintain acceptable limits on test parameters in the manner outlined in the applicable OVSC Laboratory Test Procedure may require a retest at the expense of the contractor. The retest costs will include all costs associated with conducting the retest. The Contracting Officer of NHTSA is the only NHTSA official authorized to notify the contractor that a retest is required. The retest will be completed within two (2) weeks after receipt of notification by the Contracting Officer that a retest is required. If a retest is conducted, no test report is required for the original test.

#### SUGGESTED TEST EQUIPMENT

- A. Platform scales to measure individual wheel, axle, and vehicle loads with a maximum graduation of 1 kg and accuracy of at least <u>+</u> 1 % of the measured reading. Scales are to allow for individual wheel measurements to be taken while maintaining all tire/ground interfaces on a common horizontal plane. Individual platform scale pad range/capacity is to exceed individual vehicle wheel loads.
- B. Tire pressure gage to measure tire inflation pressure with a range of 700 kPa, accuracy of <u>+</u> 7 kPa and with a maximum scale graduation of 7 kPa.
- C. Laser Level with Digital Protractor Inclinometer for leveling weight scales during vehicle load analyses with 360 degree range and ±0.1 degree accuracy and 0.1 degree resolution.
- D. Tape measure or ruler to measure rim dimensions with 1 m range and 1.0 mm scale graduation.

## 11. PRETEST REQUIREMENTS....Continued

E. Latest edition of approved Tire and Rim reference manual as identified in FMVSS No. 109, 119 and 120.

#### **GENERAL TEST CONDITIONS**

- A. For loading of simulated occupant ballast each adjustable seat should be positioned to its mid forward-to-aft and mid up-to-down seat position adjustment ranges.
- B. Adult simulated occupant load ballast for each designated seating position is 68 kg (150 lb). 54 kg (120 lb) of ballast should be placed on the seat and 14 kg (30 lb) should be placed on the floor directly in front of the respective seating position. Student simulated occupant load ballast for each designated seating position is 54 kg (120lb). Ballast for students should be placed as directed by the COTR.
- C. All weight measurements should be performed with ambient air temperatures between 0°C and 38°C.

#### 12. COMPLIANCE TEST EXECUTION

Personnel supervising and/or performing the compliance test program should be thoroughly familiar with the requirements, test conditions, and equipment for the test to be conducted. Testing will be accomplished as indicated below. Test personnel should make note of all discrepancies and deviations from the applicable FMVSS and the Laboratory Test Procedure.

## 12.1 TEST VEHICLE INFORMATION (Data Sheet 1)

Identify options, accessories, and equipment installed on the vehicle at the time of delivery. Record test vehicle information on data sheet 1.

## 12.2 VEHICLE TIRE IDENTIFICATION AND LOAD LIMITS (Data Sheet 2)

- A. Visually inspect all the tires on the vehicle including the spare tire. If all the tires are not the same make, model and size, explain under REMARKS, and contact COTR immediately.
- B. Record the tire sidewall information for the right front tire and the spare tire (if different). If the front axle tire size is different than the rear axle tire size also record the sidewall information for the left rear tire.

- C. Record the serial numbers from all vehicle tires.
- D. Verify that all tires are marked with "DOT" certifying compliance to applicable tire performance FMVSS.
- E. Record the GAWR for each axle from the vehicle's certification label. Multiply the number of tires on the axle times the maximum load rating found on the tire. If the vehicle is equipped with passenger car tires, the maximum load rating is reduced by dividing by 1.10. If the vehicle is equipped with dual tires, the maximum load rating for dual tires should be used.
- F. Determine and report as PASS or FAIL. Verify that the tires are marked with "DOT" and the sum of the tire maximum load ratings of the tires on each axle is equal to or greater than the respective axle's GAWR.

## 12.3 VEHICLE RIM IDENTIFICATION (Data Sheet 3)

- A. Remove the right front wheel from the vehicle. Also, remove the left rear wheel from the vehicle if the left rear wheel is a different size or model than the right front wheel.
- B. Remove each tire from its rim.
- C. Visually inspect each rim. Verify that each rim is marked with the following information. If the date is done by symbol, contact the COTR to obtain how the month, day, and year or the month and year are depicted by the symbol.

A designation which indicates the source of rims's published nominal dimensions, as follows:

- T The Tire and Rim Association
- E The European Tyre and Rim Technical Organisation
- J Japan Automobile Tire Manufacturers Association, Inc.
- D Deutche Industrie Norm
- B British Standards Institution
- S Scandinavian Tire and Rim Organization
- A The Tyre and Rim Association of Australia
- N Independent listed with NHTSA

Rim Size Designation.

EXAMPLE: 20 x 5.50 or 20 x 5.5

The Symbol DOT. Manufacturer's certification that rim complies with all applicable FMVSS.

Manufacturer's Name, Trademark, or Symbol.

The month, day, and year **or** the month and year of manufacture, expressed either numerically or by use of a symbol.

#### **EXAMPLE:**

January 4, 1999 may be expressed as any of the following:

Any manufacturer that elects to express the date of manufacture by means of a symbol is to notify NHTSA in writing.

- D. Identify if the lettering is impressed or embossed (stamped or raised) and if it is legible. Verify that all markings are a minimum of 3 millimeters in height.
- E. Verify that the source of the published dimensions, rim size and "DOT" markings appear on the weather side of the rim.
- F. Measure the rim width and diameter. Verify that the rim measured dimensions are the same as the rim stamped dimensions.
- G. Verify that installed rim size and contour at each wheel position is suitable for the corresponding installed tire by comparing rim dimensions stamped and/or measured with those indicated in the most recent tire and rim reference manual.
- H. Replace tire(s) on rim(s), balance, and return vehicle to pretest condition.
- I. Determine and report as Pass or Fail. Installed rims are to be suitable for installed tires and properly marked.

## 12.4 VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL (Data Sheet 4)

- A. Record location of the vehicle certification label required by Part 567. Record locations of the FMVSS No. 110 required vehicle placard, and if provided, tire inflation pressure label. The certification label is to be affixed to the hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position. The vehicle placard, and if provided, the tire inflation pressure label is to be affixed to the driver's side B-pillar. For further labeling location guidelines refer to Part 567 and FMVSS No. 110.
- B. Compare the **Vehicle Placard** and, if provided, the **Tire Inflation Pressure Label** formats to the sample formats provided on data sheet 4 and verify that they are exactly the same and the text is in the English language. While comparing label formats review the labeling notes provided below the sample labels and note any discrepancies.
- C. Document the information provided on the vehicle placard and tire inflation pressure label including combined weight of occupants and cargo (vehicle capacity weight), seating capacity, tire size(s) and cold tire pressure(s).
- D. Compare the actual number of seating positions (belted positions) with the placard number of seating positions.
- E. Compare the vehicle installed tire size(s) with the tire size(s) labeled on the vehicle placard and, if provided the tire inflation pressure label.
- F. Verify that the labeled cold tire inflation pressures are equal to or less than the maximum tire inflation pressures marked on the sidewall of the installed tires.
- G. Document the tire size and rim size information provided on the certification label. Verify that the tire size(s) listed on the vehicle placard and, if provided the tire inflation pressure label are also listed on the certification label.
- H. Verify that the labeled rim(s) and tire size(s) documented in paragraph G are suitable for each other by referencing an approved tire and rim reference manual.
- I. Record the vehicle's GAWRs. Determine the tire load ratings for the labeled tires at the recommended inflation pressure by referring to the approved tire and rim reference manual. If the vehicle is labeled with passenger car tires, the load carrying capacity is reduced by dividing by 1.10. If the vehicle is

labeled with dual tires, the load capacity for dual tires should be used. Multiply the tire load rating times the number of tires on each axle. Verify that the sum of the load ratings for the tires on any axle is greater than or equal to the GAWR for that axle.

J. Determine and report as Pass or Fail. The Vehicle Placard and, if provided, the Tire Inflation Pressure Label are to be located as required, permanent, legible, and contain the information specified in the format provided. The labeled tire inflation pressure is to be equal to or less than the installed tire's maximum sidewall inflation pressure. The certification label should provide an appropriate rim size designation for the vehicle placard or tire inflation pressure label specified tires. The sum of the load ratings for the labeled tires on an axle, at the recommended inflation pressure, is to be equal to or greater than the respective axle's GAWR.

## 12.5 WEIGHT DISTRIBUTION TEST (Data Sheet 5)

49 CFR 567, *Certification*, requires that the Gross Vehicle Weight Rating (GVWR) is not to be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg times the vehicle's designated seating capacity.

- A. Record certified GVWR, GAWRs, and tire load ratings at manufacturer recommended inflation pressure in the vehicle weight distribution table. If a passenger car tire is installed on a multipurpose vehicle (MPV), truck or bus, the tire's load rating is reduced by dividing by 1.10.
- B. Check all vehicle fluids and fill to manufacturer's recommended capacity.
- C. Adjust tire pressures of all tires to that appearing on the vehicle placard or tire inflation pressure label.
- D. Position appropriate scales on level surface in laboratory test area. Using a laser and digital protractor inclinometer (or equivalent) ensure leveling of scales front-to-back, side-to-side and corner-to-corner. Adjust scales to obtain tire/ground load measurements on a common horizontal plane.
- E. Weigh and record the vehicle's **Unloaded Vehicle Weight** including weight of each wheel position and calculate axle and vehicle weights.
- F. Record total seating capacity and occupant distribution from the vehicle placard. Calculate and record weight of full occupant load.
- G. Ballast the vehicle to simulate a full occupant load by placing appropriate ballast in each of the designated seating positions. For proper seat adjustment and ballast placement refer to the general test conditions in

section 11. Record the weight of each wheel position and calculate the **Vehicle Weight with Full Occupant Load**. The full occupant load for a school bus is determined by using 68 kg for the driver and 54 kg for each student occupant.

- H. Calculate the vehicle's luggage/cargo load as instructed on Data Sheet 5.
- I. Ballast the vehicle to simulate the luggage/cargo load calculated above. The ballast should be placed in the appropriate cargo loading area(s) and distributed uniformly fore/aft and side/side. If the vehicle has more than one cargo area (trunk, behind the rear seat, roof rack, etc.) consult the owner's manual and the COTR for further guidance concerning cargo placement. Record the weight of each wheel position and calculate the vehicle's **Maximum Load**.
- J. Verify that the tire load ratings, axle ratings (GAWR), and vehicle rating (GVWR) are not exceeded under any of the documented load conditions. If any of the above ratings are exceeded, indicate "YES" in the respective "Overload" column on Data Sheet 5 (2 of 2), and notify the COTR immediately.
- K. Determine and report as Pass or Fail. The GVWR is not to be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg times the vehicle's designated seating capacity. However, for school buses, the minimum occupant weight allowance is 54 kg.

## 12.6 OWNER'S MANUAL REQUIREMENTS (Data Sheet 6)

Review the vehicle owner's manual or other manufacturer provided document if an owner's manual is not provided, and verify that the information as specified on data sheet 6 is discussed and/or stated. The basis of these requirements is Part 575.6. Copy applicable pages of the owner's manual or other document for inclusion in the Final Test Report. Determine and report as Pass or Fail.

#### 13. POST TEST REQUIREMENTS

Remove all ballast from vehicle. Verify all data sheets have been completed and all photographs have been taken. Return vehicle to its pretest condition.

## 14. REPORTS

#### 14.1. MONTHLY STATUS REPORTS

The contractor will submit a monthly Test Status Report and a Vehicle Status Report to the COTR. The Vehicle Status report will be submitted until all vehicles are disposed of. Samples of the required reports are found in the report forms section.

## 14.2. APPARENT NONCOMPLIANCE

Any indication of a test failure will be communicated by telephone to the COTR within 24 hours with written notification mailed within 48 hours (Saturdays and Sundays excluded). A Notice of Test Failure (see report forms section) with a copy of the particular compliance test data sheet(s) and preliminary data plot(s) will be included. In the event of a test failure, a post test calibration check of some critically sensitive test equipment and instrumentation may be required for verification of accuracy. The necessity for the calibration will be at the COTR's discretion and will be performed without additional costs to the OVSC.

#### 14.3 FINAL TEST REPORTS

#### 14.3.1 COPIES

In the case of an apparent test failure, seven copies of the Final Test Report will be submitted to the COTR for acceptance within three weeks of test completion. The Final Test Report format to be used by all contractors can be found in the "Report Section".

Where there has been no indication of an apparent noncompliance, three copies of each Final Test Report will be submitted to the COTR for acceptance within three weeks of test completion. No payment of contractor's invoices for conducting compliance tests will be made prior to the Final Test Report acceptance by the COTR. Contractors are requested to NOT submit invoices before the COTR is provided with copies of the Final Test Report.

Contractors are required to submit the first Final Test Report in draft form within one week after the compliance test is conducted. The contractor and the COTR will then be able to discuss the details of both test conduct and report content early in the compliance test program.

Contractors are required to PROOF READ all Final Test Reports before submittal to the COTR. The OVSC will not act as a report quality control office

for contractors. Reports containing a significant number of errors will be returned to the contractor for correction, and a "hold" will be placed on invoice payment for the particular test.

#### 14.3.2 REQUIREMENTS

The Final Test Report and associated documentation (including photographs) are relied upon as the chronicle of the compliance test. The Final Test Report will be released to the public domain after review and acceptance by the COTR. For these reasons, each final report will be a complete document capable of standing by itself. The contractor should use DETAILED descriptions of all compliance test events. Any events that are not directly associated with the standard but are of technical interest should also be included. The contractor should include as much DETAIL as possible in the report. Instructions for the preparation of the first three pages of the final test report are provided for standardization.

# 14.3.3 FIRST THREE PAGES A. FRONT COVER

A heavy paperback cover (or transparency) will be provided for the protection of the final report. The information required on the cover is as follows:

- (1) Final Report Number such as 110-ABC-0X-001, where
  - 110 is the FMVSS tested
  - ABC are the initials for the laboratory
  - 0X is the Fiscal Year of the test program
  - is the Group Number (001 for the 1st test, 002 for the 2nd test, etc.)
- (2) Final Report Title And Subtitle such as

SAFETY COMPLIANCE TESTING FOR FMVSS 110
Tire Selection and Rims

ABC Motor Company 200X Saferider 4-door sedan NHTSA No. CX0401

(3) Contractor's Name and Address such as

COMPLIANCE TESTING LABORATORIES, INC. 4335 West Dearborn Street Detroit, Michigan 48090-1234

NOTE: DOT SYMBOL WILL BE PLACED BETWEEN ITEMS (3) AND (4)

- (4) Date of Final Report completion
- (5) The words "FINAL REPORT"
- (6) The sponsoring agency's name and address as follows

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
400 Seventh Street, SW
Room 6111 (NVS-220)
Washington, DC 20590

#### B. FIRST PAGE AFTER FRONT COVER

A disclaimer statement and an acceptance signature block for the COTR will be provided as follows:

Acceptance Date:

This publication is distributed by the U. S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared By:
Approved By:
Approval Date:
FINAL REPORT ACCEPTANCE BY OVSC:
Accepted By:

## C. SECOND PAGE AFTER FRONT COVER

A completed Technical Report Documentation Page (Form DOT F1700.7) will be completed for those items that are applicable with the other spaces left blank. Sample data for the applicable block numbers of the title page follows.

Block 1 — REPORT NUMBER

110-ABC-0X-001

Block 2 — GOVERNMENT ACCESSION NUMBER

Leave blank

Block 3 — RECIPIENT'S CATALOG NUMBER

Leave blank

Block 4 — TITLE AND SUBTITLE

Final Report of FMVSS 110 Compliance Testing of 200X Saferider 4-door sedan, NHTSA No. CX0401

Block 5 — REPORT DATE

March 1, 200X

Block 6 — PERFORMING ORGANIZATION CODE

ABC

Block 7 — AUTHOR(S)

John Smith, Project Manager Bill Doe, Project Engineer

Block 8 — PERFORMING ORGANIZATION REPORT NUMBER

ABC-DOT-XXX-001

## Block 9 — PERFORMING ORGANIZATION NAME AND ADDRESS

ABC Laboratories 405 Main Street Detroit, MI 48070-1234

Block 10 — WORK UNIT NUMBER

Leave blank

Block 11 — CONTRACT OR GRANT NUMBER

DTNH22-0X-D-12345

Block 12 — SPONSORING AGENCY NAME AND ADDRESS

United States Department of Transportation National Highway Traffic Safety Administration Office of Vehicle Safety Compliance 400 Seventh Street, SW, Room 6111 Washington, DC 20590

Block 13 — TYPE OF REPORT AND PERIOD COVERED

Final Test Report Feb. 15 to Mar. 15, 200X

Block 14 — SPONSORING AGENCY CODE

**NVS-220** 

Block 15 — SUPPLEMENTARY NOTES

Leave blank

Block 16 — ABSTRACT

Compliance tests were conducted on the subject 200X Saferider 4-door sedan in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-110T-0X for the determination of FMVSS 110 compliance. Test failures identified were as follows:

None

**NOTE:** Above wording will be shown with appropriate changes made for a particular compliance test. Any questions should be resolved with the COTR.

Block 17 — KEY WORDS

Compliance Testing Safety Engineering FMVSS 110

Block 18 — DISTRIBUTION STATEMENT

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Block 19 — SECURITY CLASSIFICATION OF REPORT

Unclassified

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Block 21 — NUMBER OF PAGES

Add appropriate number

Block 22 — PRICE

Leave blank

## 14.3.4 TABLE OF CONTENTS

Final test report Table of Contents will include the following:

Section 1 — Purpose of Compliance Test

Section 2 — Test Procedure and Discussion of Results

Section 3 — Test Data

Section 4 — Test Equipment List and Calibration Information

Section 5 — Photographs

Section 6 — Notice of Test Failure (if applicable)

## 15. DATA SHEETS

# **DATA SUMMARY SHEET (1 of 2)**

VEHICLE MAKE/MODEL/BODY STYLE:	
VEHICLE NHTSA NO.: VIN:	
VEHICLE TYPE: DATE OF MANUFACTURE	:
LABORATORY:	
LIGHT TRUCK TYPE VEHICLE REQUIREMENTS	PASS/FAIL
General (Data Sheet 2)	
The vehicle is equipped with tires that meet the requirements of S109 or S119. (S120, S5.1.1)	
Tire Load Limits (Data Sheet 2)	
The sum of the maximum load ratings of the tires fitted to an axle is not less that the gross axle weight rating (GAWR) of the axle system as specified on the certification label. (S120, S5.1.2)	
Rims (Data Sheet 3)	
Each rim is constructed to the dimensions of a rim specified for the tire size equipped on the vehicle. (S120, S5.1.1)	
Each rim is properly marked. (S120, S5.2)	
Certification, Placard, and Tire Inflation Pressure Labels (Data Sheet 4)	
The placard and tire inflation pressure label (if provided) are affixed and	
located correctly, and display the information and format required. (S110, S4.3)	
The Part 567 certification label shows the size designation of the tires	
and rims appropriate for the vehicle including the tire size(s) listed on the vehicle placard and, if provided, tire inflation pressure label. (S110, 4.3.3)	
No inflation pressure other than the maximum permissible inflation	
pressure is shown on the placard and, if any, tire inflation pressure label unless as required. (S110, S4.3.4)	

# DATA SUMMARY SHEET (2 of 2)

LIGHT TRUCK REQUIREMENTS	PASS/FAIL
Vehicle Weight Distribution (Data Sheet 5)	
The Gross Vehicle Weight Rating (GVWR) is not less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg times the vehicle's designated seating capacity. However, for school buses, the minimum occupant weight allowance is 54 kg. (49 CFR 567, <i>Certification</i> )	
Owner's Manual (Data Sheet 6)	
Owner's manual or other document has discussion of Vehicle Placard, Loading and Tires. (575.6 (a)(4))	
Owner's manual includes exact statement relating to "Steps for Determining Correct Load Limits." (575.6(a)(5))	

# DATA SHEET 1 TEST VEHICLE INFORMATION

VEHICLE MAKE/MODEL/	BODY STYLE:	
NHTSA No.:	TEST DAT	ΓΕ:
VIN:	MANUFAC	CTURE DATE:
	FRONT GAWR: K	G REAR GAWRKG
SEATING POSITIONS:	FRONT MID	REAR
ODOMETER READING A	AT START OF TEST:	Miles (Kilometers)
ENGINE DATA:	Cylinders Liters	s Cubic Inches
TRANSMISSION DATA:	Automatic Man	ual No. of Speeds
FINAL DRIVE DATA:	Rear Drive Fron	t Drive 4 Wheel Drive
CHECK APPROPRIATE E	BOXES FOR INSTALLED VEHIC	CLE EQUIPMENT:
Air Conditioning	Traction Control	Clock
Tinted Glass	Tachometer	Roof Rack
Power Steering	Cruise Control	Console
Power Windows	Rear Window Defroster	Driver Air Bag
Power Door Locks	Sun Roof or T-Top	Passenger Air Bag
Power Seat(s)	Tilt Steering Wheel	Side Curtain Air Bag(s)
Power Brakes	Stereo	Front Disc Brakes
Antilock Brake System	n Telephone	Rear Disc Brakes
Navigation System	Trailer Hitch	Other -
REMARKS:		
RECORDED BY:		DATE: DATE:

# DATA SHEET 2 (1 of 2) VEHICLE TIRE IDENTIFICATION AND LOAD LIMITS

VEHICLE MAKE/N	MODEL/BC	DY STYLE:		
VEHICLE NHTSA	NO		VIN:	
LABORATORY:				<u>:</u>
All tires on the veh	nicle (exclu	ding the spare) a	re the same size:	()YES()NO
Spare tire is the sa	ame size a	s all other tires:	()YES()1	NO
Tire Sidewall		Right Front	Left Rear (If different)	Spare Tire (If different)
Manufacturer and Mo	odel _			
Tire Size Designation	n _			
Load Index/Speed Sy	ymbol _			
Maximum Inflation Pr	ressure _			
Maximum Load Ratin	ng _			
Tread/Traction/Temp	erature _			
Tires Have "DOT" ma	arkings _			
Serial Number:	Right Fro	ont-	Left Fron	t
	Right Re	ear-	Left Rea	r
	Spare-			

# DATA SHEET 2 (2 of 2) VEHICLE TIRE IDENTIFICATION AND LOAD LIMITS

MOUNTED TIRE VS. AXLE RATING COMPARISON (at side	wall maximum inflation	pressure)
	FRONT AXLE	REAR AXLE
A. GAWR (KG) from certification label		
B. Tire Maximum Load Rating from above (KG)		
C. Reduced Tire Load Rating if applicable (KG)*		
D. (Number of tires on axle) x (tire load rating, de-rated if appropriate)		
Is "D" equal to or greater than "A" ? (Yes/No)		
* If a passenger car tire is installed on a multipurpose passenge load rating is reduced by dividing by 1.10.	r vehicle (MPV), truck o	or bus, the tire's
DATA INDICATES COMPLIANCE:	PASS/FAII	
REMARKS:		
RECORDED BY:	DA1	ΓΕ:
APPROVED BY:	DAT	re.

# DATA SHEET 3 VEHICLE RIM IDENTIFICATION

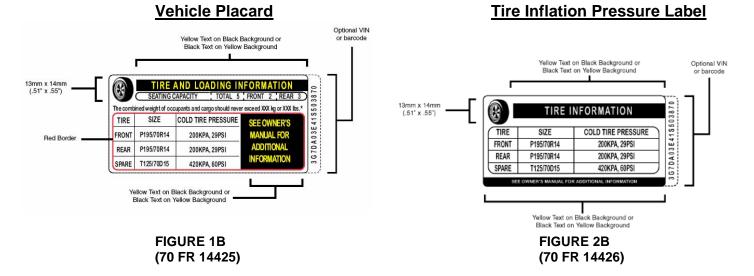
VEHICLE MAKE/MODEL/BODY STYLE: VEHICLE NHTSA NO \	VIN:	
LABORATORY:	TEST DATE:	
RIM MARKINGS	RIGHT FRONT	LEFT REAR (if different)
A. Source of published dimensions (letter designation)		
B. Rim size		
C. Does rim contain DOT symbol? (Yes/No)		
D. Manufacturer's name, symbol or trademark (copy format)		
E. Date of manufacture or symbol (copy format)		
Do items A-C appear on weather side of rim? (Yes/No)		
Letter height (not less than 3mm)		
Lettering (impressed or embossed)		
Are all rim markings legible? (Yes/No)		
Do all markings comply with requirements? (Yes/No)		
	Т	
RIM MEASUREMENTS	RIGHT FRONT	LEFT REAR (if different)
Rim width (mm)		
Rim diameter (mm)		
Rim measurements same as rim markings? (Yes/No)		
Rims are suitable for tires on vehicle*  * Reference source used for tire/rim match verifi	()YES()NO cation:	
DATA INDICATES COMPLIANCE: REMARKS:	PASS/FA	IL
RECORDED BY:	DATE:	
APPROVED BY:	DA FE:	

# DATA SHEET 4 (1 of 4) VEHICLE PLACARD, AND TIRE INFLATION PRESSURE LABEL

VEHICLE MAKE/MODEL/BODY STYLE:	
VEHICLE NHTSA NO	VIN: TEST DATE:
LABORATORY:	
Identification of Vehicle Labeling	
(Yes/No)  1. Certification Label*	Location PASS/FAIL
2. Vehicle Placard*	
Tire Inflation Pressure Label*  * Labels are to be located as specified in section 12	.4 of this test procedure.
NOTE: For a vehicle manufactured on and afte 2006, the Vehicle Placard and if provided, Tire In 1A and 2A, otherwise, they are to conform to Fi	flation Pressure Label, may conform to Figures
Vehicle Placard	Tire Inflation Pressure Label
Yellow Text on Black Background	Yellow Text on Black Background
TIRE AND LOADING INFORMATION  SEATING CAPACITY TOTAL 5 FRONT 2 REAR 3  The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.  ORIGINAL TIRE SIZE COLD TIRE INFLATION PRESSURE  P195/70R14 FRONT 200kPa, 29PSI  REAR 200kPa, 29PSI  COMPACT SPARE TIRE COLD TIRE INFLATION PRESSURE  T125/70D15 420kPa, 60PSI  NFORMATION	13mm x 14mm (.51° x .55°)  TIRE INFORMATION  TIRE ORIGINAL SIZE COLD TIRE PRESSURE FRONT P195/70R14 200kPa, 29PSI REAR P195/70R14 200kPa, 29PSI SPARE T125/70D15 420kPa, 50PSI  SEC OWNER'S MANUAL FOR ADDITIONAL INFORMATION
Yellow Text on Black Background	Yellow Text on Black Background
FIGURE 1A (67 FR 69614)	FIGURE 2A (67 FR 69615)
Vehicle Placard has the exact color and text is in English language.  If no, explain	d format as specified in the above Figure 1A and ()YES ()NO
Tire Inflation Pressure Label, if provide in the above Figure 2A and text is in If no, explain	led, has the exact color and format as specified English language. () YES () NO

# DATA SHEET 4 (2 of 4) VEHICLE PLACARD, AND TIRE INFLATION PRESSURE LABEL

NOTE: For a vehicle manufactured on and after September 1, 2005, the Vehicle Placard and if provided, Tire Inflation Pressure Label, are to conform to Figures 1B and 2B. See the Labeling Notes for additional requirements.



#### **Labeling Notes:**

- Tire size and pressure can be omitted from the Vehicle Placard if same data is displayed on a Tire Inflation Pressure Label.
- The Alphanumeric Identifier or Barcode, is optional. It can be located vertically, along the right edge or the left edge of the placard or the label, or horizontally, along the bottom edge of the placard or the label.
- 3. Tire size can include the tire load range identification symbol ("XL" or "reinforced", "B", "C", "D", "E", or "F"), the load index number, and the speed rating symbol, located immediately to the right of the tire size designation.
- 4. The tire "SIZE" heading can be replaced with "ORIGINAL TIRE SIZE" or "ORIGINAL SIZE."
- 5. The "SPARE" tire heading can be replaced with "SPARE TIRE."
- For full size spare tires, the recommended cold tire inflation pressure can be replaced with "SEE ABOVE".
- 7. If no spare tire is provided, the word "NONE" is to replace the manufacturer's cold tire inflation pressure.

Vehicle Placard has the exact color and form 1B and text is in English language. If no, explain	at as specified in the abov ()YES	•
<b>Tire Inflation Pressure Label</b> , if provided, ha in the above Figure 2B and text is in English If no, explain		•

# DATA SHEET 4 (3 of 4)

Vehicle	Placard and, if provided, Tire Inflation Pressu	re Label are permanently affixed ( ) YES ( ) NO
Vehicle	Placard information:	
	Combined weight of occupants and cargo	kg ( lbs)
	Seating Capacity: Total; Front Is the number of belted seating positions the sacapacity?  If no, explain	()YES ()NO
	Is the tire size and pressure provided? If no, is the tire size and pressure provided on	` '
Vehic	le Placard or Tire Inflation Pressure Label tire	e information:
	Tire size: Front	_; Rear
	Tire Inflation Pressure: Front	_; Rear
	Are the sizes of the installed tires the same as tires?  If no, explain	()YES ()NO
	Is the labeled cold tire inflation pressure equal labeled maximum cold tire inflation pressure? Front axle: ( ) YES ( ) NO Rear	
Vehi	cle Certification Label information: Tire Size Rim Size	Rim Suitable for Tire? (Yes/No)*
F	ront Axle	
F	Rear Axle	

# DATA SHEET 4 (4 of 4)

Is (Are) tire size(s) listed on the vehicle placa listed on the certification label with suitable ri		pressure label also S () NO		
LABELED TIRE CAPACITY AT SPECIFIED	PRESSURE			
GVWR:KG	FRONT AXLE	REAR AXLE		
A. GAWR (KG) from certification label     B. Tire load rating (KG) of labeled tire size at labeled inflation pressure *				
C. Reduced tire load rating if applicable**				
D. (No. of tires) x (Tire load rating de-rated if appropriate(KG))				
Is "D" equal to or greater than "A" ? (Yes/No)				
* Reference source used for determining load	d rating:			
** If a passenger car tire is installed on a mu or bus, the tire's load rating is reduced by		vehicle (MPV), truck		
DATA INDICATES COMPLIANCE: PASS/FAIL				
REMARKS:				
		DATE		
RECORDED BY:		DATE:		
APPROVED BY:		DATE:		

# DATA SHEET 5 (1 of 2) VEHICLE WEIGHT DISTRIBUTION

VEHICLE MA	KE/MODEL/BODY	STYLE:		
VEHICLE NH	ITSA NO	VI	N:	
LABORATOR	RY:		TEST DATE:	
Full Fluid Lev	rels: Fuel	Coolant	Other Fluids	(specify)
Tire Pressure	es: LF RF	KPA KPA	LR RR	KPA KPA
Vehicle Occu	pant Load			
Seatin	g Capacity from Pla	acard:		
	Total	F	ront	Rear
	ccupant Load occupants x 68 KG		nt and 54 KG per st	udent occupant]
Vehicle Lugga	age/Cargo Load			
(1)	Vehicle Capacity V	Veight (from placa	rd)	KG
(2)	Full Occupant Loa	d (from above)		KG
(3)	Luggage/Cargo Lo	ad (subtract (2) fr	om (1))	<u>KG</u>
Descri	he placement of ca	rao.		

# DATA SHEET 5 (2 of 2) VEHICLE WEIGHT DISTRIBUTION

ITEM	Tire or Vehicle Rating* (KG)	Unloaded Vehicle Weight (KG)		Vehicle Weight with Full Occupant Load (KG)		Vehicle Maximum Weight with Occupants and Cargo (KG)	
		Measured	Overload	Measured	Overload	Measured	Overload
Left Front Tire							
Right Front Tire							
Front Axle (GAWR)							
Left Rear Tire							
Right Rear Tire							
Rear Axle (GAWR)							
Total Vehicle (GVWR)							
axle, as determ passenger car bus, the tire's lo	tire is ins oad ratin	stalled on a g is reduce	multipurpo	se passeng	ger vehicle		k or
REMARKS:							
RECORDED BY	/:			DA <sup>-</sup>	ГЕ:		
APPROVED BY:			DATE:				

# DATA SHEET 6 (1 of 2) OWNER'S MANUAL REQUIREMENTS

VEHICLE MAKE/MODEL/BODY STYLE:	
VEHICLE NHTSA NO	VIN:
LABORATORY:	TEST DATE:

# **Owner's Manual Discusses:**

Part 575.6(a) Paragraph	Required Discussion Topic	Discussed in Manual? (YES/NO)
(4)(i)	Tire labeling, including a description and explanation of each marking on the tires provided with the vehicle, and information about the location of the Tire Identification Number (TIN).	
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).	
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	
	(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.	
(4)(iii)	Glossary of tire terminology, including "cold tire pressure," maximum inflation pressure," and "recommended inflation pressure," and all non-technical terms defined in S3 of FMVSS 110 & 139.	
(4)(vi)	Tire care, including maintenance and safety practices.	
(4)(v)	(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	
	(B) Description and explanation for calculating total and cargo load capacities with varying seating configurations including quantitative examples showing/illustrating how the vehicle's cargo and luggage capacity decreases as the combined number and size of occupants increases.	
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	

## DATA SHEET 6 (2 of 2) OWNER'S MANUAL REQUIREMENTS

The following verbatim statement, in the English language, is provided in the Owner's Manual. Reference Part 575.6(a)(5) YES() NO()

Steps for Determining Correct Load Limit ---

- (1) Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
- (2) Determine the combined weight of the driver and passengers that will be riding in your vehicle.
- (3) Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
- (4) The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5x150) = 650 lbs.)
- (5) Determine the combined weight of the luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- (6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

DATA INDICATES COMPLIANCE:	PASS/FAIL	
REMARKS:		
RECORDED BY:	DATE:	
APPROVED BY:	DATE:	

## 16. FORMS

# LABORATORY NOTICE OF TEST FAILURE TO OVSC

FMVSS NO.: <u>110</u>	TEST DATE:
LABORATORY:	
CONTRACT NO.:	
LABORATORY PROJECT ENGINEER'S NAM	E:
TEST SPECIMEN DESCRIPTION:	
VEHICLE NHTSA NO.: VIN:_	
TEST FAILURE DESCRIPTION:	
FMVSS REQUIREMENT, PARAGRAPH S	:
NOTIFICATION TO NHTSA (COTR):	
DATE: BY:	
REMARKS:	

# 16. FORMS....Continued

## MONTHLY TEST STATUS REPORT FMVSS 110 DATE OF REPORT:

NO.	VEHICLE NHTSA NO., MAKE & MODEL	COMPLIANCE TEST DATE	PASS/ FAIL	DATE REPORT SUBMITTED	DATE INVOICE SUBMITTED	INVOICE PAYMENT DATE
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

# 16. FORMS....Continued

## MONTHLY VEHICLE STATUS REPORT FMVSS 110 DATE OF REPORT:

NO.	VEHICLE NHTSA NO., MAKE & MODEL	DATE OF DELIVERY	ODOMETER READING	TEST COMPLETE DATE	VEHICLE SHIPMENT DATE	ODOMETER READING
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						