REPORT NUMBER 110-STF-09-003

SAFETY COMPLIANCE TESTING FOR FMVSS 110 TIRE SELECTION AND RIMS

HYUNDAI MOTOR COMPANY 2009 HYUNDAI GENESIS FOUR-DOOR PASSENGER CAR NHTSA NO. C90501

U.S. DOT SAN ANGELO TEST FACILITY 131 COMANCHE TRAIL, BUILDING 3527 GOODFELLOW AFB, TEXAS 76908



March 26, 2009

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION ENFORCEMENT OFFICE OF VEHICLE SAFETY COMPLIANCE 1200 NEW JERSEY AVENUE, S.E. WEST BUILDING, FOURTH FLOOR, NVS-220 WASHINGTON, D.C. 20590 This publication is distributed by the National Highway Traffic Safety Administration in the interest of information exchange. 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.

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Kenneth H. Yates, Safet	y Compliance Engin	eer		STF-DOT-09-1	10-003	
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16. Abstract						
Compliance tests were c	onducted on the sul	ojec	t 2009 Hy	undai Genesis fo	our-door passenger car	
in accordance with the s	pecifications of the C	Óffic	e of Vehi	cle Safety Comp	liance Test Procedure	
No. TP-110P-03 for the o	determination of FM	VSS	6 110 com	npliance. Test fa	ilures identified were as	
follows: owner's manual	failure (49 CFR 575	.6(a	u)(5)(i)(<i>6</i>))	•		
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Compliance Testing			Copies o	of this report are a	available from:	
Safety Engineering			•	•		
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INTRODUCTION

1.1 PURPOSE OF COMPLIANCE TEST

A 2009 Hyundai Genesis passenger car was tested to determine if the vehicle was in compliance with the requirements of FMVSS No. 110. All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure TP-110P-03, dated August 31, 2007.

1.2 TEST VEHICLE

The test vehicle was a 2009 Hyundai Genesis four-door passenger car. Nomenclatures applicable to the test vehicle are:

- A. Vehicle Identification Number: KMHGC46E89U025598
- B. NHTSA Number: C90501
- C. <u>Manufacturer</u>: Hyundai Motor Company
- D. Manufacture Date: 06/2008
- 1.3 TEST DATE

The test vehicle was tested February 19 and 20, 2009.

TEST PROCEDURE AND SUMMARY OF RESULTS

2.1 TEST PROCEDURE

Prior to test, the test vehicle was inspected for completeness, systems operability and appropriate fuel and liquid levels, i.e. oil and coolant. The vehicle was then photographically documented. The right front and left rear wheels were removed from the vehicle. Pertinent information on the tires and rims furnished with the vehicle were recorded and tires and rims were photographed.

The vehicle tire placard was photographed and checked for compliance to location, format, and information requirements. Subsequent events included weighing the vehicle to establish delivered curb weight and the distribution of weight on the front and rear axles and each wheel position. Vehicle was ballasted to Normal Load weight, Full Occupant Load, and Maximum Vehicle Load weight. At each step of the ballasting procedure, data was recorded. Ballast was photographically documented for the Normal and Maximum Vehicle Load weights. The owner's manual was checked for all required information on placard, tire loading, and general tire and loading parameters.

2.2 SUMMARY OF RESULTS

The Hyundai Genesis test vehicle appears to be in compliance with all FMVSS 110 requirements tested.

The data indicate compliance with all requirements tested, except for the owner's manual statement required by CFR (575.6(a)(5)(i)(6)), regarding towing a trailer. (Refer to Laboratory Notice of Test Failure, page 40.)

TEST DATA

DATA SUMMARY SHEET

VEHICLE MAKE/MODEL/BODY STYLE: 2009 H	yundai Genesis four-d	loor passenger car
VEHICLE NHTSA NUMBER:C90501	VIN: KMHGC	46E89U025598
VEHICLE TYPE: passenger car D/	TE OF MANUFACTU	RE: 06/2008
LABORATORY: US DOT San Angelo Test Fac	cility	
PASSENGER CAR REQUIREMENTS		PASS/FAIL
General (Data Sheet 2)		
The vehicle is equipped with tires that meet the req of S139. (S110, S4.1)	uirements	PASS
Tire Load Limits (Data Sheet 5)		
The vehicle maximum load on the tire shall not be a maximum load rating as marked on the sidewall of	greater than the the tire. (S110, S4.2.1	.1) PASS
The vehicle normal load on the tire is not greater the 94 percent of the load rating at the vehicle manuface recommended cold inflation pressure for that tire. (3)	an the value of cturer's 5110, S4.2.1.2)	PASS
Placard and Tire Inflation Pressure Label (Data	Sheets 4 and 5)	
The placard and tire inflation pressure label (if prov located correctly, and display the information and for (S110, S4.3)	ided) are affixed and prmat required.	PASS
No inflation pressure other than the maximum perm pressure may be shown on the placard and, if any, label unless as required. (S110, S4.3.4)	issible inflation tire inflation pressure	PASS
Rim (Data Sheet 3)		
Each rim is constructed to the dimensions of a rim application. (S110, S4.4.1(a))	specified for the	PASS
Owner's Manual (Data Sheet 6)		
Owner's manual or other document has discussion Loading and Tires. (575.6 (a)(4))	of Vehicle Placard	PASS
Owner's manual includes exact statement relating to Determining Correct Load Limits." (575.6(a)(5))	o "Steps for	FAIL

DATA SHEET 1 TEST VEHICLE INFORMATION/RECEIVING INSPECTION

VEHIC	CLE MAKE/MODEL/BO	DY ST	YLE: 200)9 Hyund	dai Genes	sis four-do	or passenger	car
VEHIC	CLE NHTSA NUMBER:	C90)501	TE	ST DATE	: Feb	ruary 19, 200	9
VIN:	KMHGC46E89U025	598	MANI	JFACTU	RE DATE	:	06/2008	
GV	WR: 2,200 kg (4,8	50 lb)	GA	.WR(fron	nt): 1,200) kg (2,64	46 lb)	
		,		\\//R(roa	(r). 1 250	$\frac{1}{27^{\mu}}$	 56 lb)	
			Ŭr	NUIX(IEa	ii). <u>1,200</u>	$\frac{1}{2}$		
SEAT	SEATING POSITIONS: FRONT <u>2</u> MID <u>N/A</u> REAR <u>3</u>							
ODON	ODOMETER READING AT START OF TEST:153 km (95 mi)							
ENGI	ENGINE DATA: <u>6</u> Cylinders <u>3.8</u> Liters <u>Cubic Inches</u>							
TRAN	SMISSION DATA:	<u>κ</u> Αι	utomatic	N	Manual	6	No. of Speed	ds
FINAL	. DRIVE DATA:	<u>K</u> Re	ear Drive	F	Front Drive	e	4 Wheel Driv	ve
INSTA	ALLED VEHICLE EQUI	PMEN	T:					
x	Air Conditioning	x	Traction Cor	otrol	x	Clock		
X	Tinted Glass	X	Tachometer			Roof Rack		
х	Power Steering	х	Cruise Conti	rol	x	Console		
х	Power Windows	х	Rear Windov	w Defroste	er X	Driver Air I	Bag	
х	Power Door Locks		Sun Roof or	Т-Тор	x	Passenger	· Air Bag	
х	Power Seat(s)	х	Tilt Steerina	Wheel	х	Side Curta	in Air Bag(s)	

REMARKS: None

Power Brakes

Antilock Brake System

Navigation System

Х

Х

RECORDED BY: Jack R. Stewart

Х

Stereo

Telephone

Trailer Hitch

DATE: February 19, 2009

Front Disc Brakes

Rear Disc Brakes

Other -

Х

Х

APPROVED BY: Kenneth H. Yates

DATA SHEET 2 VEHICLE TIRE IDENTIFICATION

VEHICLE MAKE/MODEL/BODY STYLE: 2009 Hyundai Genesis four-door passenger car							
VEHICLE NHTSA NUMBER: C90501 VIN: KMHGC46E89U025598							
LABORATORY: US DOT San Angelo Test Facility TEST DATE: February 19, 2009							
All tires on the vehicle (excluding the spare) are the same size: (X)YES ()NO Spare tire is the same size as all other tires: ()YES (X)NO							
Tire Sidewall	Right Front	Left Rear (If different)	Spare Tire (If different)				
Manufacturer and Model	Dunlop SP Sport 5000 M		Hankook S400				
Tire Size Designation	P225/55R17		T135/90D17				
Load Index/Speed Symbol	95H		_103M				
Maximum Inflation Pressure	350 kPa (51 psi)		420 kPa (60 psi)				
Maximum Load Rating	690 kg (1,521 lb)		875 kg (1,929 lb)				
Tread/Traction/Temperature	340/A/A		N/A				

Serial Number:	Right Front	V4UP3MDR1108	Left Front	V4UP3MDR1108
	Right Rear	V4UP3MDR1108	Left Rear	V4UP3MDR1108
	Spare	H6MLBBH2308	_	

DATA INDICATES COMPLIANCE:

Tires Have "DOT" Markings Yes

PASS/FAIL: PASS

DATE: February 19, 2009

Yes

REMARKS: None

RECORDED BY: Jack R. Stewart

APPROVED BY: Kenneth H. Yates

DATA SHEET 3 VEHICLE RIM IDENTIFICATION

VEHICLE MAKE/	MODEL/BODY STYLE	: _2009 Hyundai Genesis	four-door passenger car
VEHICLE NHTSA	NUMBER: C90501	VIN:KN	HGC46E89U025598
LABORATORY:	US DOT San Angelo	Test Facility TEST DAT	E: February 19, 2009
Rim Markings (i	f available):	Right Front	Left Rear (if different)
Manufacturer's Nam	e, Symbol or Trademark	(2)	
Rim Size		16.5JX17	
Date of Manufacture		080613	
Does Rim contain "D	OOT" symbol? (YES/NO)	Yes	
Other Rim Markings		See Figure 5.16	
Rim Inspection Com	ments: None		
Tire Inspection Com	ments [.] None		
Rim Size:	Tire Size	Measured Rim Width	Measured Rim Diameter
Rim Size: Right Front Whe	Tire Size P225/55R17	Measured Rim Width 6.5 in (16.5 cm)	Measured Rim Diameter 17.0 in (43.2 cm)
Rim Size: Right Front Whe Left Rear Whe	Tire Size Peel P225/55R17 Peel P225/55R17	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm)	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm)
Rim Size: Right Front Whe Left Rear Whe Does stamped rim Right front rim:	Tire Size P225/55R17 Peel P225/55R17 Size (if available) agre (X)YES () NO	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm) ee with the measured rim si Left rear rim: (X	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm) ze?) YES () NO
Rim Size: Right Front Whe Left Rear Whe Does stamped rim Right front rim: Installed rims are s Reference doc	Tire Size eel P225/55R17 eel P225/55R17 size (if available) agre (X)YES () NO suitable for installed tire sument: 2008 Tire & R	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm) ee with the measured rim since Left rear rim: (X) ees? (X)YES ()NO tim Association Inc. Yearbox	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm) ze?) YES () NO
Rim Size: Right Front Whe Left Rear Whe Does stamped rim Right front rim: Installed rims are s Reference doc DATA INDICATES	Tire Size eel P225/55R17 eel P225/55R17 size (if available) agreeting (X)YES () NO suitable for installed tireting timent: 2008 Tire & R S COMPLIANCE:	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm) ee with the measured rim si Left rear rim: (X es? (X)YES ()NO tim Association Inc. Yearbo	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm) 22e?) YES () NO DOK PASS/FAIL: PASS
Rim Size: Right Front Whe Left Rear Whe Does stamped rim Right front rim: Installed rims are s Reference doc DATA INDICATES <u>REMARKS: The</u>	Tire Size eel <u>P225/55R17</u> eel <u>P225/55R17</u> size (if available) agre (X)YES () NO suitable for installed tire sument: <u>2008 Tire & R</u> S COMPLIANCE: 6.5" rims used are T&R/	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm) e with the measured rim sin Left rear rim: (X)YES ()NO tim Association Inc. Yearbook A approved rim size for this single	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm) 2e?) YES () NO Dok PASS/FAIL: PASS ze tire, with the 7.0" rim
Rim Size: Right Front Whe Left Rear Whe Does stamped rim Right front rim: Installed rims are s Reference doc DATA INDICATES <u>REMARKS: The</u> being the T&RA re	Tire Size Peel <u>P225/55R17</u> Peel <u>P225/55R17</u> Size (if available) agre (X)YES () NO Puitable for installed tire sument: <u>2008 Tire & R</u> COMPLIANCE: <u>6.5" rims used are T&R/</u> commended rim.	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm) ee with the measured rim si Left rear rim: (X es? (X)YES ()NO tim Association Inc. Yearbo	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm) 2e?) YES () NO Dok PASS/FAIL: PASS ze tire, with the 7.0" rim
Rim Size: Right Front Whe Left Rear Whe Does stamped rim Right front rim: Installed rims are s Reference doc DATA INDICATES <u>REMARKS: The</u> being the T&RA re RECORDED BY:	Tire Size eel P225/55R17 eel P225/55R17 eel P225/55R17 size (if available) agre size (if available) agre (X)YES () NO suitable for installed tire sument: 2008 Tire & R S COMPLIANCE: 6.5" rims used are T&R/ commended rim. Jack R. Stewart	Measured Rim Width 6.5 in (16.5 cm) 6.5 in (16.5 cm) e with the measured rim si Left rear rim: (X es? (X)YES ()NO tim Association Inc. Yearbook A approved rim size for this si DAT	Measured Rim Diameter 17.0 in (43.2 cm) 17.0 in (43.2 cm) 2e?) YES () NO Dok PASS/FAIL: PASS ze tire, with the 7.0" rim E: February 19, 2009

DATA SHEET 4 (1 of 2) VEHICLE PLACARD

 VEHICLE MAKE/MODEL/BODY STYLE:
 2009 Hyundai Genesis four-door passenger car

 VEHICLE NHTSA NUMBER:
 C90501
 VIN:
 KMHGC46E89U025598

 LABORATORY:
 US DOT San Angelo Test Facility
 TEST DATE:
 February 20, 2009

Identification of Vehicle Labeling

	Yes/No	Location	PASS/FAIL
1. Certification Label	Yes	Driver's side B pillar	PASS
2. Vehicle Placard	Yes	Driver's side B pillar	PASS
3. Tire Inflation Pressure Label	No		

Vehicle Placard





Vehicle Placard has the exact color and format as specified in Figure 1 and text is in English language. (X)YES ()NO

Vehicle Placard is permanently affixed. (X)YES ()NO

Vehicle Placard Information:

Combined weight of occupants and o	cargo <u>390 kg</u>	(860 lb)
Seating Capacity: Total <u>5</u>	Front 2	Rear <u>3</u>
Is the number of belted seating posit capacity?	ions the same as (X)YES	the labeled seating S ()NO
Is the tire size and pressure provided	d? (X)YE	S ()NO

DATA SHEET 4 (2 of 2) VEHICLE PLACARD

Vehicle Placard Tire Information:

	Tire size:	Front	P225/55R17	Rear	P225/55F	R17
	Tire Inflation Pressure:	Front	230 kPa (33 psi)	Rear	230 kPa	(33 psi)
	Are the sizes of the inst	alled tires	s the same as the sizes (X)YES	s of the 5 ()N	labeled tii IO	res?
	Is the labeled cold tire in maximum cold tire inflat	nflation pl	ressure equal to or less ure?	s than t	he sidewa	III labeled
	Front axle: (X)Y	ES ()I	NO Rear axle:	(X)YES ()NO
DATA INE	DICATES COMPLIANCE:			PA	SS/FAIL:	PASS

REMARKS: None

RECORDED BY: Jack R. Stewart

DATE: February 20, 2009

APPROVED BY: Kenneth H. Yates

DATA SHEET 5 (1 of 4) CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT

VEHICLE MAKE/MODEL/BODY STYLE: 2009 Hyundai Genesis four-door passenger car VEHICLE NHTSA NUMBER: C90501 VIN: KMHGC46E89U025598 LABORATORY: US DOT San Angelo Test Facility TEST DATE: February 20, 2009

Full Fluid Levels: Fuel Full Coolant Full Other Fluids* Full

* Transmission, windshield washer, & engine oil

Tire Pressures:LF230 kPa (33 psi)LR230 kPa (33 psi)(cold, prior to
loading vehicle)RF230 kPa (33 psi)RR230 kPa (33 psi)

A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES

LF	457 kg (1,008 lb)	LR	406 kg (894 lb)	_
RF	441 kg (972 lb)	RR	409 kg (902 lb)	_
Front Axle	898 kg (1,980 lb)	Rear Axle	815 kg (1,796 lb)	_
	Total Vahiala 1712) ka (2.776 ll	b)	

Total Vehicle <u>1,713 kg (3,776 lb)</u>

B. MEASURED VEHICLE NORMAL LOAD WEIGHT

- (1) Seating Capacity from Vehicle Placard = <u>5</u>
- (2) Normal Load Number of Occupants (Table in Section 10) = 3

Occupant Distribution: Front Seat 2 Second Seat 1

- (3) Total Normal Occupant Load: <u>204 kg (450 lb)</u> [# of occupants x 68 KG per occupant]
- (4) Measured Normal Load on Axles:

LF	501 kg (1,104 lb)	LR _	465 kg (1,024 lb)
RF	481 kg (1,061 lb)	RR	470 kg (1,037 lb)
Front Axle	982 kg (2,165 lb)	Rear Axle	935 kg (2,061 lb)
	Total Vehicle1,917 kg	(4,226 lb)	

DATA SHEET 5 (2 of 4) CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT

(5) Calculated Vehicle Normal Load on the Tire:

Front Tires [measured front axle normal load/2] =	491 kg (1,083 lb)
Rear Tires [measured rear axle normal load/2] =	468 kg (1,031 lb)

(6) Calculated 94% of tire load rating at recommended cold inflation pressure:

Load rating at recommend cold inflation pressure=	680 kg (1,499 lb)
94% of load rating =	639 kg (1,409 lb)

Vehicle Normal Load on the Tire must not be greater than 94% of Load Rating Value.

		PASS/FAIL
[B.(5) <b.(6)]< td=""><td>Front Tires</td><td>PASS</td></b.(6)]<>	Front Tires	PASS
	Rear Tires	PASS

C. MEASURED VEHICLE WEIGHT WITH FULL OCCUPANT LOAD

(1)	Seating	g Capacity	from Placar	d:		
		Total	5	Front 2	Rear	3
(2)	2) Full Occupant Load: <u>340 kg (750 lb)</u> [# of total occupants from C.(1) x 68 KG per occupant]					
(3)	Measu	red Vehicle	e Weight wit	h Full Occupant	t Load:	
	LF	511 kg	(1,127 lb)	LR	522 kg	(1,151 lb)
	RF	494 kg	(1,089 lb)	RR	526 kg	(1,159 lb)
Front /	Axle	1,005 kg	(2,216 lb)	Rear Axle	1,048 kg	(2,310 lb)
		Total Veh	nicle 2,053	kg (4,526 lb)	

DATA SHEET 5 (3 of 4) CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT

D. MEASURED MAXIMUM VEHICLE LOAD WEIGHT

(1)	Vehicle Capacity Weight (from placard): 390 kg (860 lb)					
(2)	Full Occupant Load (from C.(2)):340 kg (750 lb)					
(3)	Luggage/Cargo Load (subtract (2) from (1)): 50 kg (110 lb)					
(4)	Measured Vehicle Maximum Load on Axles:					
	LF508 kg (1,120 lb) LR551 kg (1,215 lb)					
	RF 490 kg (1,080 lb) RR 554 kg (1,221 lb)					
	Front Axle998 kg (2,200 lb) Rear Axle1,105 kg (2,436 lb)					
	Total Vehicle <u>2,103 kg</u> (4,636 lb)					
(5)	(5) Calculated Vehicle Maximum Load on the Tire:					
	Front Tires [measured front axle maximum load/2]= 499 kg (1,100 lb)					

Rear Tires [measured rear axle maximum load/2] =	552 kg (1,218 lb)

(6) Tire Sidewall Maximum Load Ratings:

	Front	Rear
Installed Tire Size	P225/55R17	P225/55R17
Max. Load Rating on Sidewall	690 kg (1,521 lb)	690 kg (1,521 lb)

Vehicle Maximum Load on the tire must not be greater than the Maximum Load Rating Marked on the Tire Sidewall.

		PASS/FAIL
[D.(5) <d.(6)]< td=""><td>Front Tires</td><td>PASS</td></d.(6)]<>	Front Tires	PASS
	Rear Tires	PASS

DATA SHEET 5 (4 of 4) CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT

(7) Tire Load Ratings at Vehicle Placard or Tire Inflation Pressure Label Recommended Cold Tire Inflation Pressure.

	Front Axle	Rear Axle
Labeled Tire Size	P225/55R17	P225/55R17
Labeled Cold Inflation Pressure	230 kPa (33 psi)	230 kPa (33 psi)
Load Rating at This Pressure*	680 kg (1,499 lb)	680 kg (1,499 lb)
*Reference used to obtain Load	Rating: 2008 Tire & Rin	n Association Yearbook

Vehicle Normal Load on the Tire must not be greater than the Tire Load Rating at the Labeled Cold Tire Inflation Pressure.

		PASS/FAIL
[B.(5) <d.(7)]< td=""><td>Front Tires</td><td>PASS</td></d.(7)]<>	Front Tires	PASS
	Rear Tires	PASS

Vehicle Maximum Load on the tire must not be greater than the Tire Load Rating at the Labeled Cold Tire Inflation Pressure.

		PASS/FAIL
[D.(5) <d.(7)]< td=""><td>Front Tires</td><td>PASS</td></d.(7)]<>	Front Tires	PASS
	Rear Tires	PASS
DATA INDICATES COMPLIANCE:		PASS/FAIL: PASS
REMARKS: None		

RECORDED BY: Jack R. Stewart

APPROVED BY: Kenneth H. Yates

DATE: February 20, 2009

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

 VEHICLE MAKE/MODEL/BODY STYLE:
 2009 Hyundai Genesis four-door passenger car

 VEHICLE NHTSA NUMBER:
 C90501
 VIN:
 KMHGC46E89U025598

 LABORATORY:
 US DOT San Angelo Test Facility
 TEST DATE:
 February 19, 2009

Owner's Manual Discusses:

Part 575.6(a) Paragraph	Required Discussion Topic	Discussed in Manual? (YES/NO)	Page Numbers
(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).	Yes	7-37 through 7-42
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	Yes	7-31, 7-41
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).	Yes	7-31
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	Yes	7-31
	(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.	Yes	7-32
(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.	Yes	7-40 through 7-42
(4)(iv)	Tire care, including maintenance and safety practices.	Yes	7-31
(4)(v)	(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	Yes	5-42 through 5-44
	(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.	Yes	5-44
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	Yes	5-42
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	Yes	5-45, 5-46

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

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

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 1400 lbs. 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: FAIL

REMARKS: See Failure Report, page 40.

RECORDED BY: Jack R. Stewart

DATE: February 19, 2009

APPROVED BY: Kenneth H. Yates

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

		MODEL/		NEXT
EQUIPMENT	DESCRIPTION	SERIAL NO	CAL. DATE	CAL. DATE
PLATFORM	HOWE RICHARDSON	MODEL #6401	8/5/2008	8/5/2009
SCALE		SERIAL #0181-		
(BALLAST)		5509-26		
AIR PRESSURE	ASHCROFT	MODEL #D1005PS	11/20/2008	11/20/2009
GAUGE	GENERAL PURPOSE	02L 100 PSI		
	DIGITAL GAUGE	SERIAL #20017398-		
		01		
FLOOR SCALES	INTERCOMP SW	PART #100156	8/5/2008	8/5/2009
(VEHICLE)	DELUXE SCALES	SERIAL #27032382		

SECTION 5 PHOTOGRAPHS



FIGURE 5.1 ¾ FRONT VIEW FROM LEFT SIDE OF VEHICLE

2009 HYUNDAI GENESIS NHTSA NO. C90501 FMVSS 110



FIGURE 5.2 ¾ REAR FROM RIGHT SIDE OF VEHICLE



FIGURE 5.3 VEHICLE CERTIFICATION LABEL

302	A	RENSEI	TIRE AN	D LOADING	INFORMATI	ON CHARGEMENT
-		SEATIN	G CAPACITY	TOTAL 5	FRONT 2	REAR 3
		NOMBR	E DE SIÈGES	TOTAL 5	AVANT 2	ARRIÈRE 3
	The combined Le poids total	weight of occu des occupants	pants and cargo et des marchand	should never ex dises ne doit jan	kceed 390kg or nais dépasser 3	8601bs. 90kg ou 8601b.
~	TIRE/ PNEU	SIZE / DIMENSIONS	COLD TIRE P PRESSION DES P	RESSURE / NEUS À FROID S	EE OWNER'S	
5R1	FRONT/ AVANT	P225/55R17	230kPa,	33psi	ANUAL FOR	MANUEL DE
5/5	REAR/ ARRIERE	P225/55R17	230kPa,	33psi 4	DEFTIONAL	L'USAGER POUR PLUS DE
P22	SPARE/ DE RECHANGE	T135/90D17	420kPa,	60psi	NFORMATION	RENSEIGNEMENTS

FIGURE 5.4 VEHICLE PLACARD



FIGURE 5.5 TIRE SHOWING BRAND



FIGURE 5.6 TIRE SHOWING MODEL



FIGURE 5.7 TIRE SHOWING SIZE, LOAD INDEX, AND SPEED SYMBOL



FIGURE 5.8 TIRE SHOWING MAX LOAD RATING



FIGURE 5.9 TIRE SHOWING MAX INFLATION PRESSURE



FIGURE 5.10 TIRE SHOWING SERIAL NUMBER



FIGURE 5.11 RIM CONTOUR FOR FULL WIDTH OF CROSS SECTION



FIGURE 5.12 RIM SHOWING SIZE





FIGURE 5.14 RIM SHOWING MANUFACTURER'S SYMBOL



FIGURE 5.15 RIM SHOWING DATE OF MANUFACTURER













FIGURE 5.16 RIM SHOWING OTHER RIM MARKINGS



FIGURE 5.17 VEHICLE FRONT SEAT BALLASTED FOR NORMAL AND MAXIMUM LOADS



FIGURE 5.18 VEHICLE REAR SEAT BALLASTED FOR NORMAL LOAD



FIGURE 5.19 VEHICLE REAR SEAT BALLASTED FOR MAXIMUM LOAD

2009 HYUNDAI GENESIS NHTSA NO. C90501 FMVSS 110



FIGURE 5.20 VEHICLE TRUNK BALLASTED FOR MAXIMUM LOAD



FIGURE 5.21 VEHICLE ON WEIGHT SCALES

FAILURE REPORT

LABORATORY NOTICE OF TEST FAILURE TO OVSC

FMVSS NUMBER: Part 575.6 TEST DATE: February 19 and 20, 2009			
LABORATORY: US DOT San Angelo Test Facility			
LABORATORY PROJECT ENGINEER'S NAME: Kenneth H. Yates			
TEST SPECIMEN DESCRIPTION: 2009 Hyundai Genesis			
NHTSA VEHICLE NUMBER: C90501 VIN: KMHGC46E89U025598			
MANUFACTURER: Hyundai Motor Company			
TEST FAILURE DESCRIPTION: The verbatim statement required by 99 CFR Part			
575.6(a)(5)(i)(6), is not present, as verified by inspection during FMVSS No.110 compliance			
testing.			
FMVSS REQUIREMENT, PARAGRAPH :S575.6(a)(5)			
the manufacturer shall provide to the purchaser, in writing in the English language and not			
less than 10 point type, the following verbatim statement, as applicable, in the owner's manual			
"(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" '.			
NOTIFICATION TO NHTSA (COTR): John Finneran			
DATE: February 21, 2009 BY: Kenneth H. Yates			
REMARKS: None			