

REPORT NUMBER 110-STF-07-004

SAFETY COMPLIANCE TESTING FOR FMVSS NO. 110 TIRE SELECTION AND RIMS

BAYERISCHE MOTOREN WERKE AG
2007 BMW X3 3.0si
FOUR-DOOR MPV
NHTSA NO. C70506

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



October 5, 2007

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
NVS-220
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVENUE, SE
WASHINGTON, D.C. 20590

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16. Abstract Compliance tests were conducted on the subject 2007 BMW X3 3.0si four-door MPV in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-110T-01 for the determination of FMVSS 110 compliance. Test failures identified were as follows: Labeling failure (S110, S4.3.3), Rim marking failure (S120, S5.2(e)), and vehicle loading failure (49 CFR 567, <i>Certification</i>).			
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SECTION 1
INTRODUCTION

1.1 PURPOSE OF COMPLIANCE TEST

A 2007 BMW X3 3.0si four-door MPV was tested to determine if the vehicle was in compliance with the requirements of FMVSS 110. All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure, TP-110T-01, dated December 15, 2005.

This standard establishes requirements to ensure that applicable vehicles are equipped with tires of adequate size and load rating and rims of appropriate size and type designation. This standard also establishes location, content, and format requirements for the Vehicle Placard and optional Tire Inflation Pressure Label. The standard specifies rim and tire information on the Vehicle Certification label for vehicles other than passenger cars

1.2 TEST VEHICLE

The test vehicle was a 2007 BMW X3 3.0si four-door MPV. Nomenclatures applicable to the test vehicle are:

- A. Vehicle Identification Number: WBXPC93497WF22356
- B. NHTSA Number: C70506
- C. Manufacturer: Bayerische Motoren Werke AG
- D. Manufacture Date: 04/2007

1.3 TEST DATE

The test vehicle was tested September 6 through September 18, 2007.

SECTION 2

TEST PROCEDURE AND SUMMARY OF RESULTS

2.1 TEST PROCEDURE

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 as required by the NHTSA/OVSC Test Procedure. Tire sidewall information was recorded. The owner's manual was reviewed. Pertinent information from the tire and rim was photographed.

Subsequent events included weighing the vehicle to establish delivered Unloaded Vehicle Weight and the distribution of weight on the front and rear axles and each wheel position. At each step of the ballasting procedure, data was recorded. Vehicle was ballasted to Full Occupant Load, and Maximum Vehicle Load weight. Ballast was photographically documented for Maximum Vehicle Load weight. The vehicle maximum load on each wheel was measured. Data from each tire furnished with the vehicle were recorded. Tire size information was taken from vehicle placard. The right front wheel was removed from the vehicle and the tire was dismounted from the rim. The rim was measured from flange to flange, and rim markings were photographically documented. The owner's manual was checked for all required information on tire loading, and on general tire and loading parameters.

2.2 SUMMARY OF RESULTS

The BMW X3 3.0si test vehicle appears to be in compliance with all 120 requirements tested except for the date-of-manufacture rim marking requirement. The date-of-manufacture information impressed on the rims was not in the format specified by S120, S5.2(e).

The test vehicle also appears to be in noncompliance with an FMVSS 110 requirement and a Part 567 regulation as listed:

1. The Vehicle Certification label did not have the rim and tire information as required by S110, S4.3.3.
2. The application of Vehicle Capacity Weight exceeded the Gross Vehicle Weight Rating (49 CFR 567, *Certification*).

SECTION 3

TEST DATA

DATA SUMMARY SHEET (1 of 2)

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV
VEHICLE NHTSA NUMBER: C70506 VIN: WBXPC93497WF22356
VEHICLE TYPE: MPV DATE OF MANUFACTURE: 04/2007
LABORATORY: US DOT San Angelo Test Facility

LIGHT TRUCK TYPE REQUIREMENTS

PASS/FAIL

General (Data Sheet 2)

The vehicle must be equipped with tires that meet the requirements of S109 or S119. (S120, S5.1.1)

PASS

Tire Load Limits (Data Sheet 2)

The sum of the maximum load ratings of the tires fitted to an axle is not less than the gross axle weight rating (GAWR) of the axle system as specified on the certification label. (S120, S5.1.2)

PASS

Rim (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)

PASS

Each rim is properly marked. (S120, S5.2)

FAIL

Certification, Placard, and Tire Inflation Pressure Labels (Data Sheets 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)

PASS

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, S4.3.3)

FAIL

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)

PASS

DATA SUMMARY SHEET (2 of 2)

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, *Certification*)

FAIL

Owner's Manual (Data Sheet 6)

Owner's manual or other document has discussion of Loading and Tires (575.6 (a)(4))

PASS

Owner's manual includes exact statement relating to "Steps for Determining Correct Load Limits." (575.6 (a)(5))

PASS

DATA SHEET 1
TEST VEHICLE INFORMATION / RECEIVING INSPECTION

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV

VEHICLE NHTSA NUMBER: C70506 TEST DATE: September 13, 2007

VIN:: WBXPC93497WF22356 MANUFACTURE DATE: 04/2007

GVWR: 2,315 kg (5,104 lbs) GAWR (front): 1,150 kg (2,535 lbs)

GAWR (rear): 1,260 kg (2,778 lbs)

SEATING POSITIONS: FRONT 2 MID N/A REAR 3

ODOMETER READING AT START OF TEST: 37 km (23 mi)

ENGINE DATA: 6 Cylinders 3.0 Liters Cubic Inches

TRANSMISSION DATA: X Automatic Manual 6 No. of Speeds

FINAL DRIVE DATA: Rear Drive Front Drive X 4 Wheel Drive

CHECK APPROPRIATE BOXES FOR INSTALLED VEHICLE EQUIPMENT:

<input checked="" type="checkbox"/>	Air Conditioning	<input checked="" type="checkbox"/>	Traction Control	<input checked="" type="checkbox"/>	Clock
<input checked="" type="checkbox"/>	Tinted Glass	<input checked="" type="checkbox"/>	Tachometer	<input checked="" type="checkbox"/>	Roof Rack
<input checked="" type="checkbox"/>	Power Steering	<input checked="" type="checkbox"/>	Cruise Control	<input checked="" type="checkbox"/>	Console
<input checked="" type="checkbox"/>	Power Windows	<input checked="" type="checkbox"/>	Rear Window Defroster	<input checked="" type="checkbox"/>	Driver Air Bag
<input checked="" type="checkbox"/>	Power Door Locks	<input checked="" type="checkbox"/>	Sun Roof or T-Top	<input checked="" type="checkbox"/>	Passenger Air Bag
<input checked="" type="checkbox"/>	Power Seat(s)	<input checked="" type="checkbox"/>	Tilt Steering Wheel	<input checked="" type="checkbox"/>	Side Curtain Air Bag(s)
<input checked="" type="checkbox"/>	Power Brakes	<input checked="" type="checkbox"/>	Stereo	<input checked="" type="checkbox"/>	Front Disc Brakes
<input checked="" type="checkbox"/>	Antilock Brake System	<input type="checkbox"/>	Telephone	<input checked="" type="checkbox"/>	Rear Disc Brakes
<input type="checkbox"/>	Navigation System	<input type="checkbox"/>	Trailer Hitch	<input checked="" type="checkbox"/>	Other – Hill Descent Control and BMW Assist

REMARKS: None

RECORDED BY: Robert N. Gregg DATE: September 13, 2007

APPROVED BY: Kenneth H. Yates

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

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV

VEHICLE NHTSA NUMBER: C70506 VIN: WBXPC93497WF22356

LABORATORY: US DOT San Angelo Test Facility TEST DATE: September 14, 2007

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	<u>Pirelli Scorpion STR</u>	<u></u>	<u>Continental</u>
Tire Size Designation	<u>235/55R17</u>	<u></u>	<u>T135/90R17</u>
Load Index/Speed Symbol	<u>99H</u>	<u></u>	<u>104M</u>
Maximum Inflation Pressure	<u>350 kPa (51 psi)</u>	<u></u>	<u>420 kPa (60 psi)</u>
Maximum Load Rating	<u>775 kg (1,709 lbs)</u>	<u></u>	<u>900 kg (1,984 lbs)</u>
Tread/Traction/Temperature	<u>440/A/A</u>	<u></u>	<u>N/A</u>
Tires Have "DOT" Markings	<u>Yes</u>	<u></u>	<u>Yes</u>

Serial Number: Right Front XTEKD9511507 Left Front XTEKD9511507
Right Rear XTEKD9511507 Left Rear XTEKD9511507
Spare CPBBAFRP1207

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

MOUNTED TIRE VS. AXLE RATING COMPARISON (at sidewall maximum inflation pressure)		
	FRONT AXLE	REAR AXLE
A. GAWR from certification label	1,150 kg (2,535 lbs)	1,260 kg (2,778 lbs)
B. Tire Maximum Load Rating from sidewall	775 kg (1,709 lbs)	775 kg (1,709 lbs)
C. Reduced tire load rating if applicable*	705 kg (1,554 lbs)	705 kg (1,554 lbs)
D. (No. of tires) x (Tire load rating de-rated if appropriate)	1,410 kg (3,108 lbs)	1,410 kg (3,108 lbs)
Is "D" equal to or greater than "A"? (Yes/No)	Yes	Yes

* If a passenger car tire is installed on a multipurpose passenger vehicle (MPV), truck or bus, the tire's load rating is reduced by dividing by 1.10.

DATA INDICATES COMPLIANCE:

PASS/FAIL: PASS

REMARKS: None

RECORDED BY: Robert N. Gregg

DATE: September 14, 2007

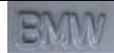
APPROVED BY: Kenneth H. Yates

**DATA SHEET 3
VEHICLE RIM IDENTIFICATION**

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV

VEHICLE NHTSA NUMBER: C70506 VIN: WBXPC93497WF22356

LABORATORY: US DOT San Angelo Test Facility TEST DATE: September 18, 2007

Rim Markings	RIGHT FRONT	LEFT REAR (if different)
A. Source of published dimensions (letter designation)	E	
B. Rim Size	8Jx17	
C. Does rim contain DOT symbol? (Yes/No)	Yes	
D. Manufacturer's name, symbol or trademark (copy format)		
E. Date of manufacture or symbol (copy format)	10.04.07	
F. Letter height (not less than 3 mm)	3.5 mm	
G. Lettering (impressed or embossed)	Both	
H. Are all rim markings legible? (Yes/No)	Yes	
Do items A-C appear on weather side of rim (Yes/No)	Yes	
Do all markings comply with requirements (Yes/No)	No	

Rim Measurements	RIGHT FRONT	LEFT REAR (if different)
Rim width	20.3 cm (8 in)	
Rim diameter	43.2 cm (17 in)	
Rim measurements same as rim markings?	Yes	

Rims are suitable for tires on vehicle? (X)YES () NO

Reference source used for tire/rim match verification:

2005 European Tyre and Rim Technical Organisation Yearbook

DATA INDICATES COMPLIANCE: PASS/FAIL: FAIL

REMARKS: Date-of-manufacture appears to be in the European dd.mm.yy format and does not indicate rim information as required by FMVSS 120, S5.2(e).

RECORDED BY: Robert N. Gregg

DATE: September 18, 2007

APPROVED BY: Kenneth H. Yates

DATA SHEET 4 (1 of 3)
VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV
 VEHICLE NHTSA NUMBER: C70506 VIN: WBXPC93497WF22356
 LABORATORY: US DOT San Angelo Test Facility TEST DATE: September 18, 2007

Identification of Vehicle Labeling

	(Yes/No)	Location	PASS/FAIL
1. Certification Label*	<u>Yes</u>	<u>Driver's side B pillar</u>	<u>PASS</u>
2. Vehicle Placard*	<u>Yes</u>	<u>Driver's side B pillar</u>	<u>PASS</u>
3. Tire Inflation Pressure Label*	<u>N/A</u>		

* Labels must be located as specified in section 12.4 of test procedure.

Vehicle Placard

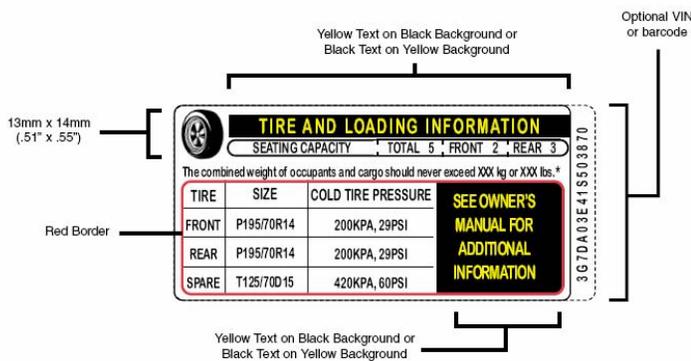


FIGURE 1
(70 FR 14425)

Tire Inflation Pressure Label

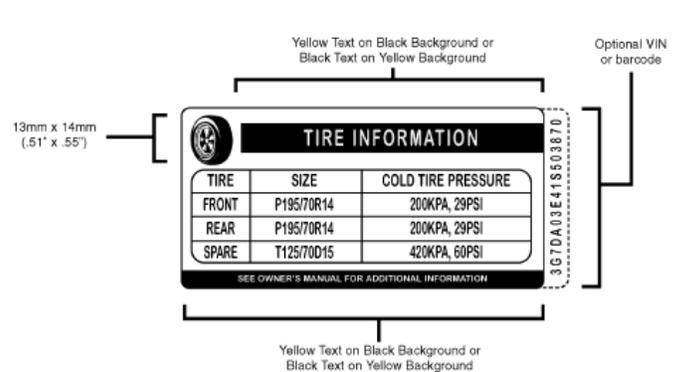


FIGURE 2
(70 FR 14426)

Labeling Notes:

1. Tire size and pressure can be omitted from the Vehicle Placard if same data is displayed on a Tire Inflation Pressure Label.
2. 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."
6. 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 format as specified in the above Figure 1 and text is in English language. () YES (X) NO

If no, explain: Label has proper information, but format is different. There is an extra row for compact spare titles and front/rear column is in between size and inflation. Format is similar to Figure 1 (67 FR 69625), effective 9/1/05 - 8/31/06.

DATA SHEET 4 (2 of 3)
VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL

Vehicle Placard and, if provided, **Tire Inflation Pressure Label** are permanently affixed.
 YES NO

Combined weight of occupants and cargo: 470 kg (1,036 lbs)

Seating Capacity: Total 5 ; Front 2 ; Rear 3
 Is the number of belted seating positions the same as the labeled seating capacity?
 YES NO

Is the tire size and pressure provided? YES NO

Tire Information:

Tire Size: Front 235/55R17 ; Rear 235/55R17

Tire Inflation Pressure: Front 220 kPa (32 psi) ; Rear 220 kPa (32 psi)

Are the sizes of the installed tires the same as the sizes of the labeled tires?
 YES NO

Is the labeled cold tire inflation pressure equal to or less than the sidewall labeled maximum cold tire inflation pressure?
 Front axle: YES NO Rear axle: YES NO

Vehicle Certification Label information:

	Tire Size	Rim Size	Rim Suitable for Tire?*
Front Axle	_____	_____	<u>See Remarks</u>
Rear Axle	_____	_____	<u>See Remarks</u>

*Referenced source used for tire/rim match verification:

Is (Are) tire size(s) listed on the vehicle placard and/or tire inflation pressure label also listed on the certification label with suitable rim size?
 YES NO

DATA SHEET 4 (3 of 3)
VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL

Is (Are) tire size(s) listed on the vehicle placard and/or tire inflation pressure label also listed on the certification label with suitable rim size? (X) YES () NO

LABELED TIRE CAPACITY AT SPECIFIED PRESSURE		
GVWR <u>2,315 kg (5,104 lbs)</u>	FRONT AXLE	REAR AXLE
A. GAWR from certification label	1,150 kg (2,535 lbs)	1,260 kg (2,778 lbs)
B. Tire load rating of labeled tire size at labeled inflation pressure*	700 kg (1,543 lbs)	700 kg (1,543 lbs)
C. Reduced tire load rating if applicable**	636 kg (1,402 lbs)	636 kg (1,402 lbs)
D. (No. of tires) x (Tire load rating de-rated if appropriate)	1,272 kg (2,804 lbs)	1,272 kg (2,804 lbs)
Is "D" equal to or greater than "A"?	Yes	Yes

*Reference source used for determining load rating:

2005 European Tyre and Rim Technical Organisation Yearbook

** If a passenger car tire is installed on a multipurpose passenger vehicle (MPV), truck or bus, the tire's load rating is reduced by dividing by 1.10.

DATA INDICATES COMPLIANCE:

PASS/FAIL: FAIL

REMARKS: No tire and rim information was found on the certification label.

RECORDED BY: Robert N. Gregg

DATE: September 18, 2007

APPROVED BY: Kenneth H. Yates

DATA SHEET 5 (1 of 2)
CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV

VEHICLE NHTSA NUMBER: C70506 VIN: WBXPC93497WF22356

LABORATORY: US DOT San Angelo Test Facility TEST DATE: September 18, 2007

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

* Transmission, windshield washer, power steering fluid, & engine oil

Tire Pressures: LF 220 kPa (31.9 psi) LR 220 kPa (31.9 psi)
(prior to adjustment for RF 220 kPa (31.9 psi) RR 220 kPa (31.9 psi)
weighing)

Vehicle Occupant Load

Seating Capacity from Placard:

Total 5 ; Front 2 ; Rear 3

Full Occupant Load 340 kg (750 lbs)

[# of occupants x 68 kg per adult occupant and 54 kg per student occupant]

Vehicle Luggage/Cargo Load

(1) Vehicle Capacity Weight (from placard) 470 kg (1,036 lbs)

(2) Full Occupant Load (from above) 340 kg (750 lbs)

(3) Luggage/Cargo Load (subtract (2) from (1)) 130 kg (286 lbs)

Describe placement of cargo: Equally spaced weight distribution, front to rear and side to side

DATA SHEET 5 (2 of 2)
VEHICLE WEIGHT DISTRIBUTION

ITEM	Tire or Vehicle Rating*	Unloaded Vehicle Weight		Vehicle Weight with Full Occupant Load		Vehicle Maximum Weight with Occupants and Cargo	
		Measured	Over-load	Measured	Over-load	Measured	Over-load
Left Front Tire	636 kg (1,402 lbs)	462.2 kg (1,019 lbs)	no	523.0 kg (1,153 lbs)	no	517.5 kg (1,141 lbs)	no
Right Front Tire	636 kg (1,402 lbs)	471.3 kg (1,039 lbs)	no	533.0 kg (1,175 lbs)	no	525.7 kg (1,159 lbs)	no
Front Axle (GAWR)	1150 kg (2,535 lbs)	933.5 kg (2,058 lbs)	no	1,056.0 kg (2,328 lbs)	no	1,043.2 kg (2,300 lbs)	no
Left Rear Tire	636 kg (1,402 lbs)	461.3 kg (1,017 lbs)	no	571.5 kg (1,260 lbs)	no	641.8 kg (1,415 lbs)	yes
Right Rear Tire	636 kg (1,402 lbs)	455.4 kg (1,004 lbs)	no	564.7 kg (1,245 lbs)	no	636.8 kg (1,404 lbs)	yes
Rear Axle (GAWR)	1,260 kg (2,778 lbs)	916.7 kg (2,021 lbs)	no	1,136.2 kg (2,505 lbs)	no	1,278.7 kg (2,819 lbs)	yes
Total Vehicle (GVWR)	2,315 kg (5,104 lbs)	1,850.2 kg (4,079 lb)	no	2,192.2 kg (4,833 lbs)	no	2,321.9 kg (5,119 lbs)	yes

*Vehicle and axle weight ratings (GVWR & GAWR) are located on the vehicle certification label. Vehicle tire load ratings are based upon the inflation pressure specified on the Vehicle Placard or Tire Inflation Pressure Label for each respective axle, as determined from the appropriate Tire and Rim reference manual. If a passenger car tire is installed on a multipurpose passenger vehicle (MPV), truck or bus, the tire's load rating is reduced by dividing by 1.10.

DATA INDICATES COMPLIANCE: PASS/FAIL: FAIL

REMARKS: With test vehicle loaded to Vehicle Capacity Weight, the GVWR was exceeded by 15 lbs.

RECORDED BY: Robert N. Gregg

DATE: September 18, 2007

APPROVED BY: Kenneth H. Yates

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

VEHICLE MAKE/MODEL/BODY STYLE: 2007 BMW X3 3.0si four-door MPV

VEHICLE NHTSA NUMBER: C70506 VIN: WBXPC93497WF22356

LABORATORY: US DOT San Angelo Test Facility TEST DATE: September 6, 2007

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	93
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	YES	90, 92
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).	YES	82, 83, 90
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	YES	90
	(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.	YES	90
(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	90
(4)(vi)	Tire care, including maintenance and safety practices.	YES	54
(4)(v)	(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	YES	92, 122
	(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	83, 122
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	YES	92
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	YES	83

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 (X) 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 1400 lbs. and there will be five 150 lbs. 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: PASS

REMARKS: None

RECORDED BY: Robert N. Gregg

DATE: September 6, 2007

APPROVED BY: Kenneth H. Yates

SECTION 4

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TABLE 1 – EQUIPMENT INFORMATION LIST

EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO	CAL. DATE	NEXT CAL. DATE
PLATFORM SCALE (BALLAST)	HOWE RICHARDSON	MODEL #6401 SERIAL #0181- 5509-26	8/14/2007	8/14/2008
AIR PRESSURE GAUGE	ASHCROFT GENERAL PURPOSE DIGITAL GAUGE	MODEL #D1005PS 02L 100 PSI SERIAL #20017398- 01	12/20/2006	12/20/2007
FLOOR SCALES (VEHICLE)	INTERCOMP SW DELUXE SCALES	PART #100156 SERIAL #27032382	8/14/2007	8/14/2008

SECTION 5
PHOTOGRAPHS



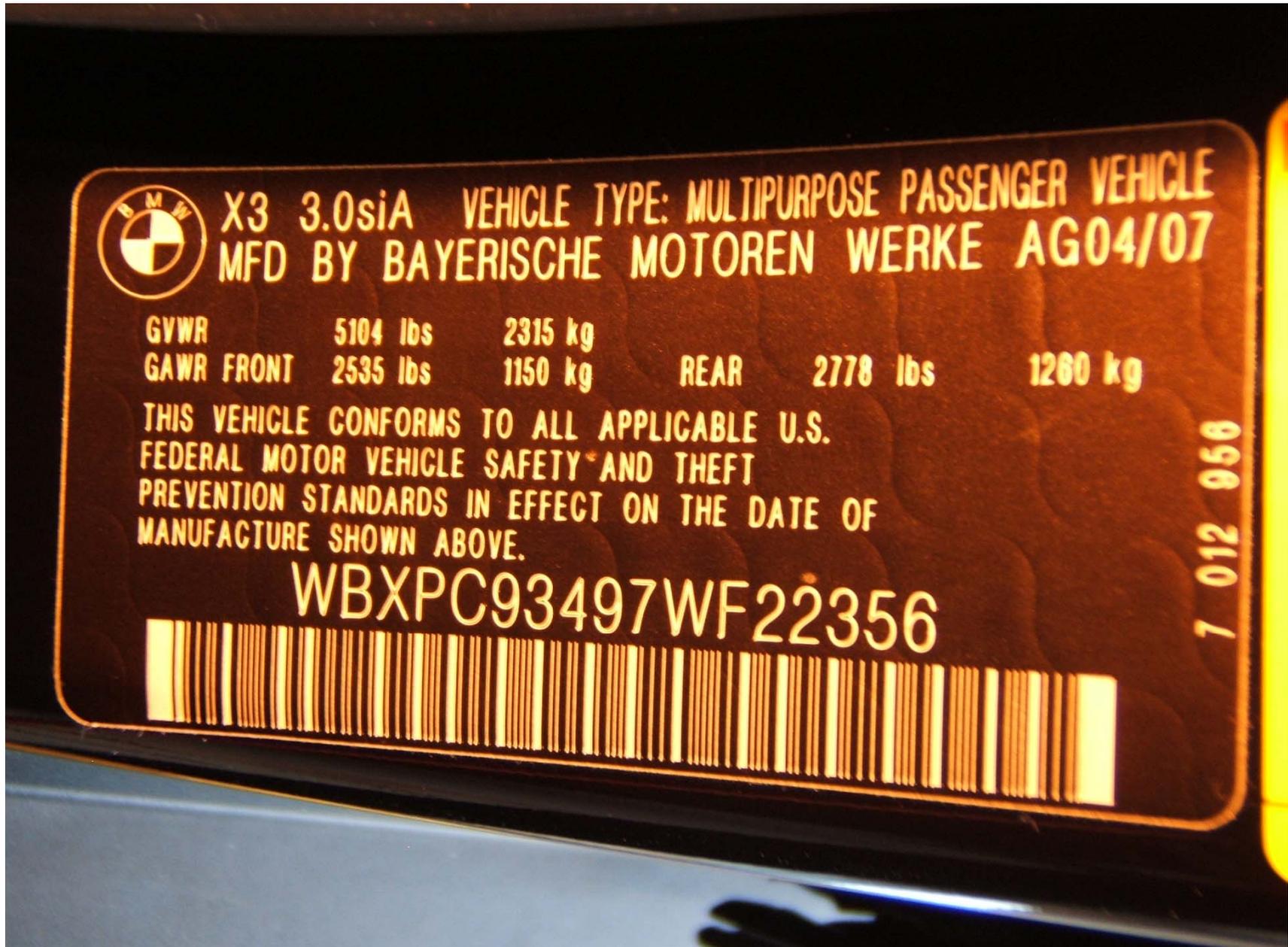
2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.1
¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



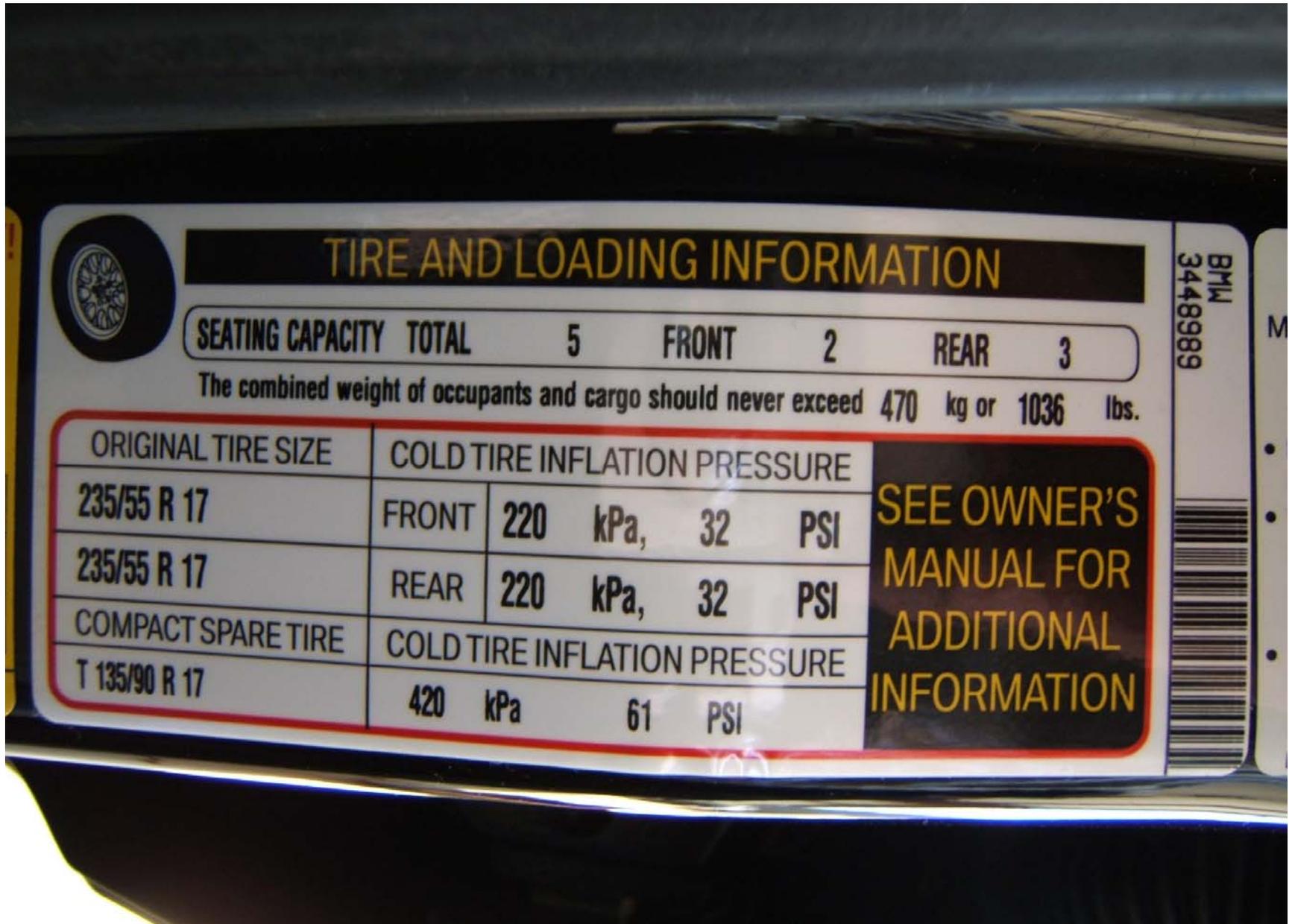
2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.2
¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE



2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO.110

FIGURE 5.3
VEHICLE CERTIFICATION LABEL



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FIGURE 5.4
 VEHICLE PLACARD



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FIGURE 5.5
TIRE SHOWING BRAND



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FIGURE 5.6
TIRE SHOWING MODEL



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



2007 BMW X3 3.0si
NHTSA NO. C70506
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FIGURE 5.8
TIRE SHOWING MAX LOAD RATING AND MAX INFLATION PRESSURE



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FIGURE 5.9
TIRE SHOWING CONSTRUCTION



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FIGURE 5.10
TIRE SHOWING SERIAL NUMBER



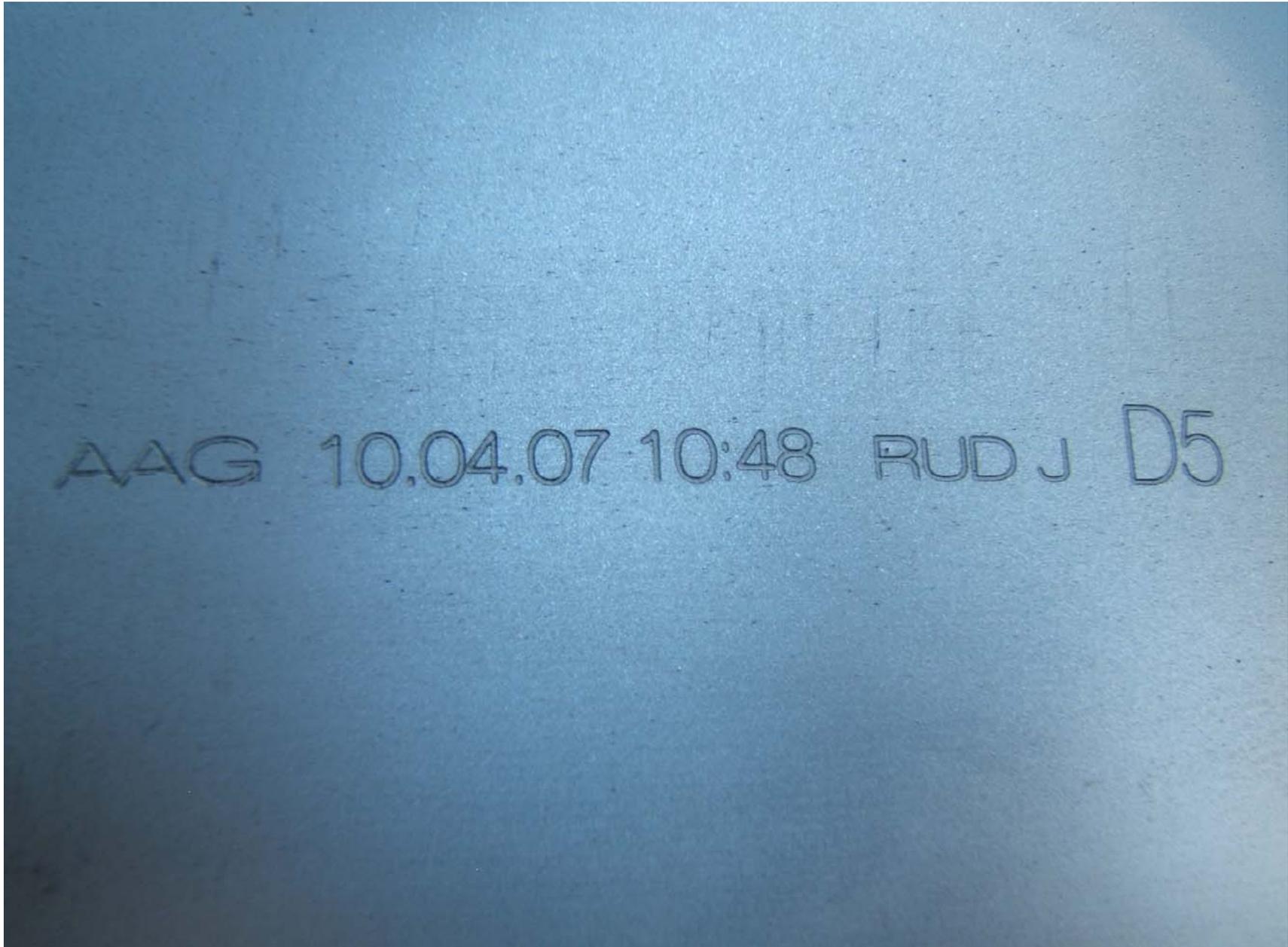
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FMVSS NO. 110

FIGURE 5.11
RIM CONTOUR FOR FULL WIDTH OF CROSS SECTION



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NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.12
RIM SHOWING MANUFACTURER



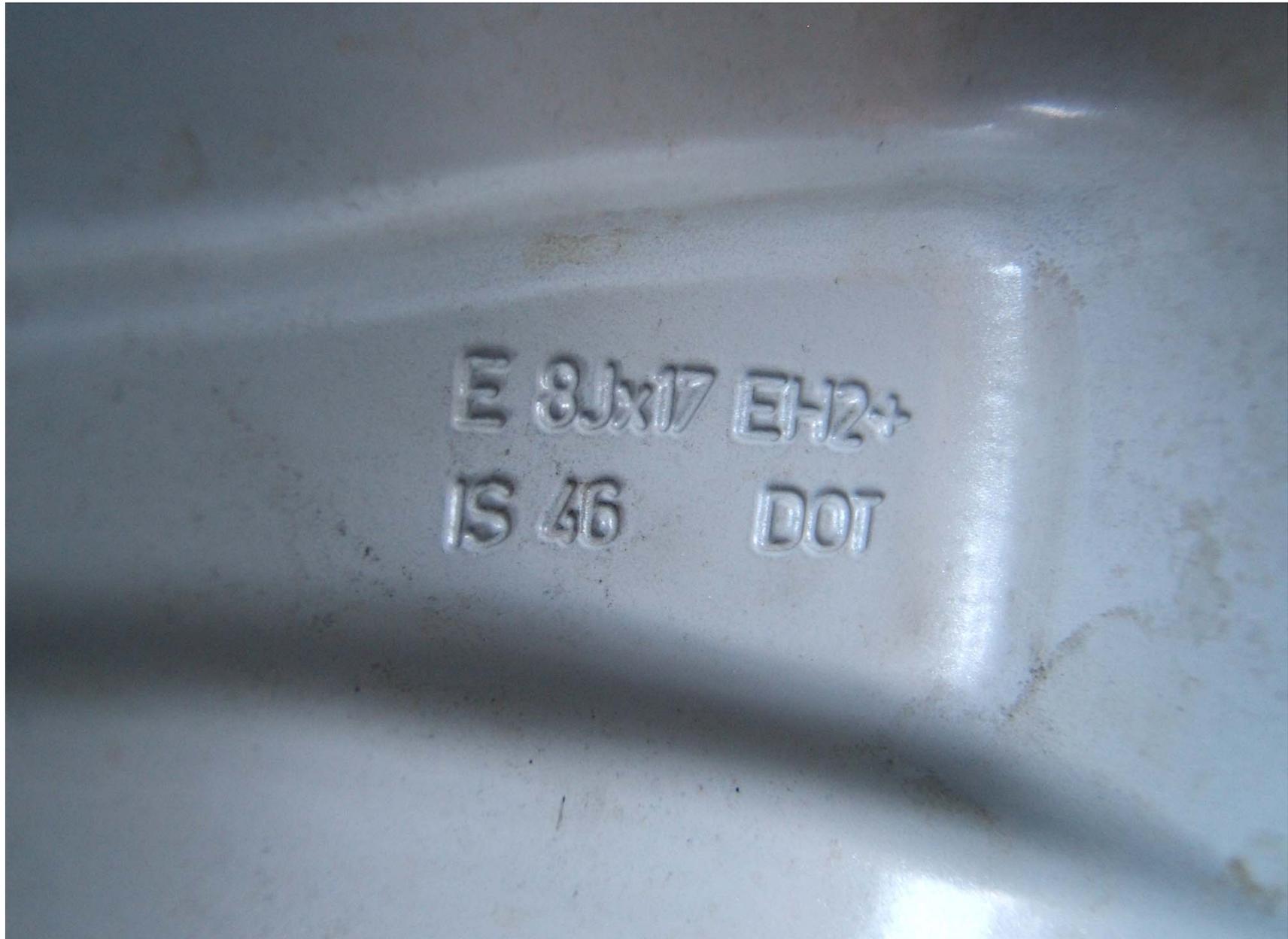
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NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.13
RIM SHOWING MANUFACTURE DATE



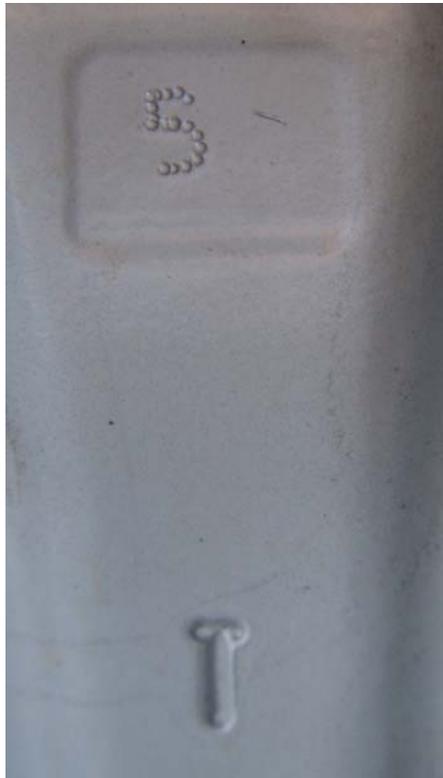
2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.14
RIM SHOWING COUNTRY OF MANUFACTURE



2007 BMW X3 3.0si
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FMVSS NO. 110

FIGURE 5.15
RIM SHOWING REFERENCE SOURCE,
SIZE/TYPE DESIGNATION, DOT SYMBOL



2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.16
RIM MARKINGS



2007 BMW X3 3.0si
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FMVSS NO. 110

FIGURE 5.17
VEHICLE FRONT SEAT BALLASTED
FOR MAXIMUM LOAD



2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.18
VEHICLE REAR SEAT BALLASTED
FOR MAXIMUM LOAD



2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.19
REAR OF VEHICLE SHOWN BALLASTED FOR CARGO



2007 BMW X3 3.0si
NHTSA NO. C70506
FMVSS NO. 110

FIGURE 5.20
VEHICLE ON WEIGHT SCALES

SECTION 6
LABORATORY TEST FAILURE NOTICES

LABORATORY NOTICE OF TEST FAILURE

FMVSS NO.: 110 TEST DATE: September 6 through September 18, 2007

LABORATORY: US DOT San Angelo Test Facility

CONTRACT NO.: N/A DELIVERY ORDER NO.: N/A

LABORATORY PROJECT ENGINEER'S NAME: Kenneth H. Yates

TEST SPECIMEN DESCRIPTION: 2007 BMW X3 3.0si four-door MPV

NHTSA VEHICLE NUMBER: C70506 VIN: WBXPC93497WF22356

MANUFACTURER: Bayerische Motoren Werke AG

TEST FAILURE DESCRIPTION: The vehicle certification label did not indicate tire and rim information as required by S4.3.3 of FMVSS 110, and verified by FMVSS 110 testing. See photograph of label, Figure 5.3 in report number 110-STF-07-004.

FMVSS REQUIREMENT, PARAGRAPH : S110, S4.3.3
(Cross-referenced to Part 567.4) "Each vehicle shall show the size designation and, if applicable, the type designation of rims..."

NOTIFICATION TO NHTSA (COTR): Theresa Lacuesta

DATE: August 21, 2007 BY: Kenneth H. Yates

REMARKS: _____

LABORATORY NOTICE OF TEST FAILURE TO OVSC

FMVSS NO.: 110/120 TEST DATE: September 6 through September 18, 2007

LABORATORY: US DOT San Angelo Test Facility

LABORATORY PROJECT ENGINEER'S NAME: Kenneth H. Yates

TEST SPECIMEN DESCRIPTION: 2007 BMW X3 3.0si four-door MPV

NHTSA VEHICLE NUMBER: C70506 VIN: WBXPC93497WF22356

MANUFACTURER: Bayerische Motoren Werke AG

TEST FAILURE DESCRIPTION: Rim date-of-manufacture format does not indicate rim information as required by FMVSS 120, S5.2, and verified by FMVSS 110/120 testing. See photograph of rim, Figure 5.13 in report number 110-STF-07-004.

FMVSS REQUIREMENT, PARAGRAPH : S120, S5.2

Each rim shall be marked with "The month, day and year or the month and year of manufacture, expressed either numerically or by use of a symbol, at the option of the manufacturer".

NOTIFICATION TO NHTSA (COTR): Theresa Lacuesta

DATE: August 21, 2007 BY: Kenneth H. Yates

REMARKS: None

LABORATORY NOTICE OF TEST FAILURE TO OVSC

FMVSS NO.: 110/120 TEST DATE: September 6 through September 18, 2007

LABORATORY: US DOT San Angelo Test Facility

LABORATORY PROJECT ENGINEER'S NAME: Kenneth H. Yates

TEST SPECIMEN DESCRIPTION: 2007 BMW X3 3.0si four-door MPV

NHTSA VEHICLE NUMBER: C70506 VIN: WBXPC93497WF22356

MANUFACTURER: Bayerische Motoren Werke AG

TEST FAILURE DESCRIPTION: The application of Vehicle Capacity Weight exceeded GVWR

(49 CFR 567, Certification).

FMVSS REQUIREMENT, PARAGRAPH : 49 CFR 567.4.g(3), Certification

The label shall contain " "Gross Vehicle Weight Rating" or "GVWR" followed by the appropriate value in pounds, which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the number of the of the vehicle's designated seating positions."

NOTIFICATION TO NHTSA (COTR): Theresa Lacuesta

DATE: August 21, 2007 BY: Kenneth H. Yates

REMARKS: None