

REPORT NUMBER 110-STF-20-009

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

MAZDA MOTOR CORPORATION
2020 MAZDA CX-5
MPV
NHTSA NO. C20205400

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



JANUARY 8, 2020

FINAL REPORT

PREPARED FOR

U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
NEF-200
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVENUE, SE
WASHINGTON, D.C. 20590

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Prepared By: Audrey Krapil

Approved By: Gayton Lindsey

Accepted By: H. Kerrie Bessant

Acceptance Date: 1/27/20

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SECTION 1

INTRODUCTION

1.1 PURPOSE OF COMPLIANCE TEST

A 2020 Mazda CX-5 MPV was tested to determine if the vehicle was compliant 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-03, dated November 1, 2012.

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.

1.2 TEST VEHICLE

The test vehicle was a 2020 Mazda CX-5 MPV. Nomenclatures applicable to the test vehicle are:

- A. Vehicle Identification Number: JM3KFABM2L0727858
- B. NHTSA Number: C20205400
- C. Manufacturer: Mazda Motor Corporation
- D. Manufacture Date: 10/2019

1.3 TEST DATE

The test vehicle was tested on January 3 thru January 7, 2020

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. The vehicle was ballasted to its Normal Load, Full Occupant Load, and Maximum Vehicle Load weight. At each step of the ballasting procedure, data was recorded. Ballast was photographically documented for Normal, Full, and 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 certification label and 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 tires and rims labeled and installed on the vehicle were verified to be appropriate for the loading and load ratings of the vehicle. The owner's manual was checked for all required information on tire loading, and on general tire and loading parameters. Rim retention testing was not performed on the vehicle.

2.2 SUMMARY OF RESULTS

The 2020 Mazda CX-5 test vehicle appears to comply with the FMVSS 110 requirements tested.

SECTION 3

TEST DATA

DATA SUMMARY SHEET (1 of 2)

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5

VEHICLE NHTSA NUMBER: C20205400 VIN: JM3KFABM2L0727858

VEHICLE TYPE: MPV DATE OF MANUFACTURE: 10/2019

LABORATORY: U.S. DOT San Angelo Test Facility

LIGHT TRUCK TYPE VEHICLE REQUIREMENTS

PASS/FAIL

General (Data Sheet 2)

The vehicle must be equipped with tires that meet the requirements of S139. (S110, S4.1)

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. When passenger car tires are installed, each tire's load rating is reduced by dividing it by 1.10 before determining the sum of the maximum load ratings of the tires fitted to an axle. (S110, S4.2.2.1, S4.2.2.2)

PASS

When passenger car tires are installed, the vehicle normal load on the tire is not greater than the value of 94 percent of the de-rated load rating at the vehicle manufacturer's recommended cold inflation pressure for that tire. When LT tires are installed, the vehicle normal load on the tire is not greater than the value of 94 percent of the load rating at the vehicle manufacturer's recommended cold inflation pressure for that tire. (S110, S4.2.2.3(a), (b))

PASS

Rim (Data Sheet 3)

Each rim is constructed to the dimensions of a rim referred to in FMVSS 139 that is listed by the manufacturer of the tires as suitable for use with those tires. (S110, S4.4.1(a))

PASS

Each rim is properly marked. (S110, S4.4.2)

PASS

Vehicle rims retain deflated tires during a controlled braking application. (S110, S4.4.1(b))

See
Remarks

DATA SUMMARY SHEET (2 of 2)

Certification, Vehicle Placard, Tire Inflation Pressure Labels, Load Carrying Capacity Modification Label (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)

PASS

The Part 567 certification label shows the size designation of the tires and 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)

PASS

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

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*)

PASS

Owner's Manual (Data Sheet 6)

Owner's manual or other document has discussion of Vehicle Placard, 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

REMARKS: The rim retention test required by FMVSS No.110, paragraph S4.4.1(b)
was not executed on the subject 2020 Mazda CX-5.

RECORDED BY: Anthony Walden & Tommy Oliver

DATE: January 7, 2020

APPROVED BY: Jayton Lindley

TEST VEHICLE INFORMATION DATA SHEET 1

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5 MPV

VEHICLE NHTSA NUMBER: C20205400 TEST DATE: January 7, 2020

VIN: JM3KFABM2L0727858 MANUFACTURE DATE: 10/2019

GVWR: 2,075 kg, 4,575 lbs. GAWR(front): 1,075 kg, 2,370 lbs.

GAWR(rear): 1,000 kg, 2,205 lbs.

SEATING POSITIONS: TOTAL 5 FRONT 2 REAR 3

ODOMETER READING AT START OF TEST: 17 km (11 mi)

ENGINE DATA: 4 Cylinders 2.5 Liters Cubic Inches

TRANSMISSION DATA: X Automatic Manual 6 Number of Speeds

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

INSTALLED VEHICLE EQUIPMENT:

X	Power Windows	X	Blind Spot Monitoring		Block Heater
X	Power Door Locks		Running Boards		Remote Start
	Power Seat(s)		Heated Mirrors		Other:
	Navigation System	X	Floor/Trunk Mats		
	Satellite Radio	X	Bluetooth		
	Sun Roof or T-Top		Heated/Cooled Seats		
X	Cruise Control		Cargo Net/Luggage Compartment Cover		
	Splash Guards		Upgraded Wheel Package		
	Roof Rack		Trailer Hitch/Tow Package		
X	Backup Camera		Grill Upgrade		

Does vehicle labeling identify optional and accessory equipment installed by the distributor and/or dealer: () YES (X) NO

REMARKS: None

RECORDED BY: Anthony Walden & Tommy Oliver DATE: January 3, 2020

APPROVED BY: Jayton Lindley

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5 MPV

VEHICLE NHTSA NUMBER: C20205400 VIN: JM3KFABM2L0727858

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: January 7, 2020

Spare tire is the same size as all other tires: () YES (X) NO () N/A

Tire Sidewall	Right Front	Left Rear (If different)	Spare Tire (If different)
Manufacturer and Model	Yokohama Geolandar G91		Yokohama
Tire Size Designation	P225/65R17		T145/90D16
Load Index/Speed Symbol	100 H		106 M
Maximum Inflation Pressure	300 kPa, 44 psi		420 kPa, 60 psi
Maximum Load Rating	800 kg, 1,764 lbs.		950 kg, 2,094 lbs.
Tread/Traction/Temperature	280 / A / B		N/A
Tires Have “DOT” Markings	Yes		Yes

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

MOUNTED TIRE VS. AXLE RATING COMPARISON (at sidewall maximum inflation pressure)		
	FRONT AXLE	REAR AXLE
A. GAWR from certification label	1,075 kg, 2,370 lbs.	1,000 kg, 2,205 lbs.
B. Tire Maximum Load Rating from tire sidewall	800 kg	800 kg
C. Reduced tire load rating if applicable*	727 kg	727 kg
D. (No. of tires on axle) x (Tire load rating de-rated if appropriate)	1,454 kg	1,454 kg
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 or SUV), 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: Anthony Walden & Tommy Oliver

DATE: January 7, 2020

APPROVED BY: Jayton Lindley

VEHICLE RIM IDENTIFICATION DATA SHEET 3

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5 MPV

VEHICLE NHTSA NUMBER: C20205400 VIN: JM3KFABM2L0727858

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: November 8, 2019

Rim Markings	RIGHT FRONT	LEFT REAR (if different)
A. Source of published dimensions (letter designation)	J	
B. Rim Size Designation		
C. Does rim contain DOT symbol?	Yes	
D. Manufacturer's name, symbol or trademark		
E. Date of manufacture or symbol		
Do items A-C appear on outward (see Remarks) side of rim?	Yes	
Letter height (not less than 3 mm)	5.0 mm	
Lettering (impressed or embossed)	Both	
Are all rim markings legible?	Yes	
Do all markings comply with requirements?	Yes	

Rim Measurements	RIGHT FRONT	
Rim width	7.0 in	(177.8 mm)
Rim diameter	17.0 in	(431.8 mm)
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:

2019 The Tire and Rim Association

DATA INDICATES COMPLIANCE:

PASS/FAIL: PASS

REMARKS: None

RECORDED BY: Anthony Walden & Tommy Oliver

DATE: January 7, 2020

APPROVED BY: Jayton Lindley

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

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5 MPV

VEHICLE NHTSA NUMBER: C20205400 VIN: JM3KFABM2L0727858

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: January 7, 2020

Identification of Vehicle Labeling

	Yes/No	Location	PASS/FAIL
1. Monroney Label	<u>Yes</u>	<u>Included, but not affixed</u>	<u>Not Applicable</u>
2. Certification Label*	<u>Yes</u>	<u>Driver's side B pillar</u>	<u>Not Applicable</u>
3. Alterer's Label (if attached)	<u>No</u>	<u></u>	<u>Not Applicable</u>
4. Vehicle Placard*	<u>Yes</u>	<u>Driver's side B pillar</u>	<u>PASS</u>
5. Tire Inflation Pressure Label* (if attached)	<u>No</u>	<u></u>	<u></u>
6. Load Carrying Capacity Modification Label* (if attached)	<u>No</u>	<u></u>	<u></u>
7. Dealer/Distributor Optional Equipment Added Label (if attached)	<u>No</u>	<u></u>	<u>Not Applicable</u>

* Labels must be located as specified in section 13.4 of test procedure.

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

Vehicle Placard

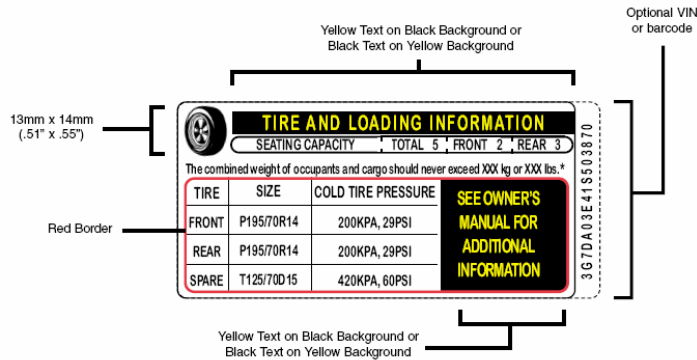


FIGURE 1
(70 FR 14425)

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

Vehicle Placard, Tire Inflation Pressure Label (if attached) **and Load Carrying Capacity Modification Label** (if attached) are permanently affixed: (X) YES () NO () N/A

Vehicle Placard Information:

Combined weight of occupants and cargo 385 kg

Seating Capacity: Total 5 Front 2 Rear 3

Is the number of belted seating positions the same as the labeled seating capacity? (X) YES () NO

Is the tire size and pressure provided? (X) YES () NO

Tire Information:	Front	Rear
Tire Size:	<u>P225/65R17</u>	<u>P225/65R17</u>
Cold Tire Inflation Pressure:	<u>230 kPa, 34 psi</u>	<u>230 kPa, 34 psi</u>

Are the sizes of the installed tires the same as the sizes of the vehicle labeled tires? (X) YES () NO

Is the vehicle labeled cold tire inflation pressure equal to or less than the sidewall labeled maximum cold tire inflation pressure?

Front axle tires: (X) YES () NO Rear axle tires: (X) YES () NO

**VEHICLE PLACARD, TIRE INFLATION PRESSURE LABEL, AND OTHER LABELS
DATA SHEET 4 (3 of 4)**

Vehicle Certification Label information:

	Tire Size	Rim Size Designation	Rim Suitable for Tire? *
Front Axle	<u>P225/65R17</u>	<u>17x7.0J</u>	<u>Yes</u>
Rear Axle	<u>P225/65R17</u>	<u>17x7.0J</u>	<u>Yes</u>

*Referenced source used for tire/rim match verification:

2019 The Tire and Rim Association

Load Carrying Capacity Modification Label information:

Is there a Load Carrying Capacity Modification label? () YES () NO (X) N/A

Monroney Label information:

Tire Size: Front P225/65R17 Rear P225/65R17

Installed tire sizes same as labeled tire sizes? (X) YES () NO () N/A

**VEHICLE PLACARD, TIRE INFLATION PRESSURE LABEL, AND OTHER LABELS
DATA SHEET 4 (4 of 4)**

LABELED TIRE CAPACITY AT SPECIFIED PRESSURE <u>(230 kPa)</u>		
GVWR <u>2,075 kg, 4,575 lbs.</u>	FRONT AXLE	REAR AXLE
A. GAWR from certification label	1,075 kg, 2,370 lbs.	1,000 kg, 2,205 lbs.
B. Tire load rating of labeled tire size at labeled inflation pressure*	788 kg	788 kg
C. Reduced tire load rating if applicable**	716 kg	716 kg
D. (No. of tires) x (Tire load rating de-rated if appropriate)	1,432kg	1,432 kg
Is "D" equal to or greater than "A"?	Yes	Yes

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

Reference source used for determining load rating:

2019 The Tire and Rim Association

DATA INDICATES COMPLIANCE:

PASS/FAIL: PASS

REMARKS: NONE

RECORDED BY: Anthony Walden & Tommy Oliver

DATE: January 7, 2020

APPROVED BY: Jayton Lindley

**CURB WEIGHT, NORMAL LOAD WEIGHT, FULL LOAD WEIGHT,
AND MAXIMUM VEHICLE LOAD WEIGHT
DATA SHEET 5 (1 of 4)**

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5 MPV

VEHICLE NHTSA NUMBER: C20205400 VIN: JM3KFABM2L0727858

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: January 7, 2020

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

* Engine oil, transmission oil, brake fluid, power steering fluid, & windshield washer fluid

Tire Pressures: LF 230.0 kPa LR 230.0 kPa

(cold, prior to loading vehicle) RF 230.0 kPa RR 230.0 kPa

A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES

LF 458.5 kg LR 326.0 kg

RF 453.0 kg RR 307.0 kg

Front Axle 911.5 kg Rear Axle 633.0 kg

Total Vehicle 1,544.5 kg

B. MEASURED VEHICLE NORMAL LOAD WEIGHT

(1) Seating Capacity from Vehicle Placard: 5

(2) Normal Load Number of Occupants: 3

Occupant Distribution: Front 2 Rear 1

(3) Total Normal Occupant Load: 204 kg
[# of occupants x 68 KG per occupant]

(4) Measured Normal Load on Axles:

LF 504.5 kg LR 383.0 kg

RF 498.5 kg RR 362.5 kg

Front Axle 1,003.0 kg Rear Axle 745.5 kg

Total Vehicle 1,748.5 kg

**CURB WEIGHT, NORMAL LOAD WEIGHT, FULL LOAD WEIGHT,
AND MAXIMUM VEHICLE LOAD WEIGHT
DATA SHEET 5 (2 of 4)**

- (5) Calculated Vehicle Normal Load on the Tire

Front Tires [measured front axle normal load/2] = 501.5 kg

Rear Tires [measured rear axle normal load/2] = 372.75 kg

- (6) Measured Normal Load on Tire vs. Value of 94% of Load Rating for that Tire at vehicle manufacturer's recommended cold inflation pressure

Vehicle Normal Load on the tire should not be greater than the value of 94% of the load rating at the vehicle manufacturer's recommended cold inflation pressure.

MEASURED NORMAL LOAD ON TIRE VS. VALUE OF 94% OF LOAD RATING FOR THAT TIRE AT SPECIFIED PRESSURE		
	FRONT AXLE	REAR AXLE
A. Calculated Vehicle Normal Load on the Tire from (5)	501.5 kg	372.75 kg
B. Tire load rating of installed tire size at recommended inflation pressure*	788 kg	788 kg
C. Tire De-Rated (if necessary) - (B.)/(1.10)**	716 kg	716 kg
D. Adjusted Load Rating (94% of tire load rating) - (C.)x(.94) OR (B.)x(.94) (if tire NOT de-rated)	673 kg	673 kg
Is "D" equal to or greater than "A"?	Yes	Yes

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

Reference source used for determining load rating:

2019 The Tire and Rim Association

Vehicle Normal Load on the tire is not greater than 94% of the Recommended Cold Inflation Load Rating.

PASS/FAIL

Front Tires	<u>PASS</u>
Rear Tires	<u>PASS</u>

**CURB WEIGHT, NORMAL LOAD WEIGHT, FULL LOAD WEIGHT,
AND MAXIMUM VEHICLE LOAD WEIGHT
DATA SHEET 5 (3 of 4)**

C. MEASURED VEHICLE WEIGHT WITH FULL OCCUPANT LOAD

Seating Capacity: Total 5 Front 2 Rear 3

Full Occupant Load 340 kg
[# of occupants x 68 KG per adult occupant]

LF	<u> 520.0 kg </u>	LR	<u> 437.5 kg </u>
RF	<u> 512.5 kg </u>	RR	<u> 414.5 kg </u>
Front Axle	<u> 1,032.5 kg </u>	Rear Axle	<u> 852.0 kg </u>
Total Vehicle <u> 1,884.5 kg </u>			

D. MEASURED MAXIMUM VEHICLE LOAD WEIGHT

- | | | |
|-----|--|-------------------|
| (1) | Vehicle Capacity Weight (from placard) | <u> 385 kg </u> |
| (2) | Full Occupant Load (from C. above) | <u> 340 kg </u> |
| (3) | Luggage/Cargo Load (subtract (2) from (1)) | <u> 45 kg </u> |
| (4) | Measured Vehicle Maximum Load on Axles | |

LF	<u> 517.0 kg </u>	LR	<u> 462.5 kg </u>
RF	<u> 511.5 kg </u>	RR	<u> 438.5 kg </u>
Front Axle	<u> 1,028.5 kg </u>	Rear Axle	<u> 901.0 kg </u>
Total Vehicle <u> 1,929.5 kg </u>			

**CURB WEIGHT, NORMAL LOAD WEIGHT, FULL LOAD WEIGHT,
AND MAXIMUM VEHICLE LOAD WEIGHT
DATA SHEET 5 (4 of 4)**

VEHICLE WEIGHT DISTRIBUTION TABLE

ITEM	Tire or Vehicle Rating*	Unloaded Vehicle Weight		Vehicle Weight with Normal Occupant Load		Vehicle Weight with Full Occupant Load		Vehicle Maximum Weight with Occupants and Cargo	
		Measured	Over-load	Measured	Over-load	Measured	Over-load	Measured	Over-load
Left Front Tire (kg)	537.5	458.5		504.5		520.0		517.0	
Right Front Tire (kg)	537.5	453.0		498.5		512.5		511.5	
Front Axle (GAWR) (kg)	1,075.0	911.5		1,003.0		1,032.5		1,028.5	
Front Tire Average Load (kg)**				501.5				514.25	
Left Rear Tire (kg)	500.0	326.0		383.0		437.5		462.5	
Right Rear Tire (kg)	500.0	307.0		362.5		414.5		438.5	
Rear Axle (GAWR) (kg)	1,000.0	633.0		745.5		852.0		901.0	
Rear Tire Average Load (kg)**				372.75				450.5	
Total Vehicle (GVWR) (kg)	2,075.0	1,544.5		1,748.5		1,884.5		1,929.5	

*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 Association reference manual.

** These rows contain the measured front or rear axle load/2.

DATA INDICATES COMPLIANCE:

PASS/FAIL: PASS

REMARKS: None

RECORDED BY: Anthony Walden & Tommy Oliver

DATE: January 7, 2020

APPROVED BY: Jayton Lindley

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

VEHICLE MAKE/MODEL/BODY STYLE: 2020 Mazda CX-5 MPV

VEHICLE NHTSA NO.: C20205400 VIN: JM3KFABM2L0727858

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: January 7, 2020

Owner's Manual Discusses (See Remarks):

Part 575.6(a) Paragraph	Required Discussion Topic	Discussed in Manual? (YES/NO)	Page Numbers (Tire Information Supplement)
(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	8-24 thru 8-29
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	YES	8-31
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).	YES	8-30
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	YES	8-31
	(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.	YES	8-31
(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	8-31, 8-32
(4)(iv)	Tire care, including maintenance and safety practices.	YES	8-33 thru 8-35
(4)(v)	(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	YES	8-36 thru 8-41
	(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	8-36 thru 8-41
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	YES	8-40
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	YES	8-36

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

The following statement, in the English language, is provided verbatim in the Owner's Manual. Reference Part 575.6(a)(5) YES (☒) NO (☐) Page(s): 8-41

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. $(1400 - 750 (5 \times 150) = 650 \text{ lbs.})$
- (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: Anthony Walden & Tommy Oliver

DATE: January 3, 2020

APPROVED BY: Jayton Lindley

SECTION 4

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO	CAL. DATE	NEXT CAL. DATE
FLOOR SCALES (VEHICLE & BALLAST)	INTERCOMP SW DELUXE SCALES	PART #100156, SERIAL #27032382- 23746	11/04/2019	11/04/2020
AIR PRESSURE GAUGE	ASHCROFT GENERAL PURPOSE DIGITAL GAUGE	MODEL # DG2551L2NAM02L 100# - XCA, SERIAL # 3093017001	12/20/2019	12/20/2020

SECTION 5
PHOTOGRAPHS



2020 MAZDA CX-5
NHTSA NO. C20205400
FMVSS NO. 110

FIGURE 5.1
THREE-QUARTER FRONT VIEW FROM LEFT SIDE OF VEHICLE



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FIGURE 5.2
THREE-QUARTER REAR VIEW FROM RIGHT SIDE OF VEHICLE

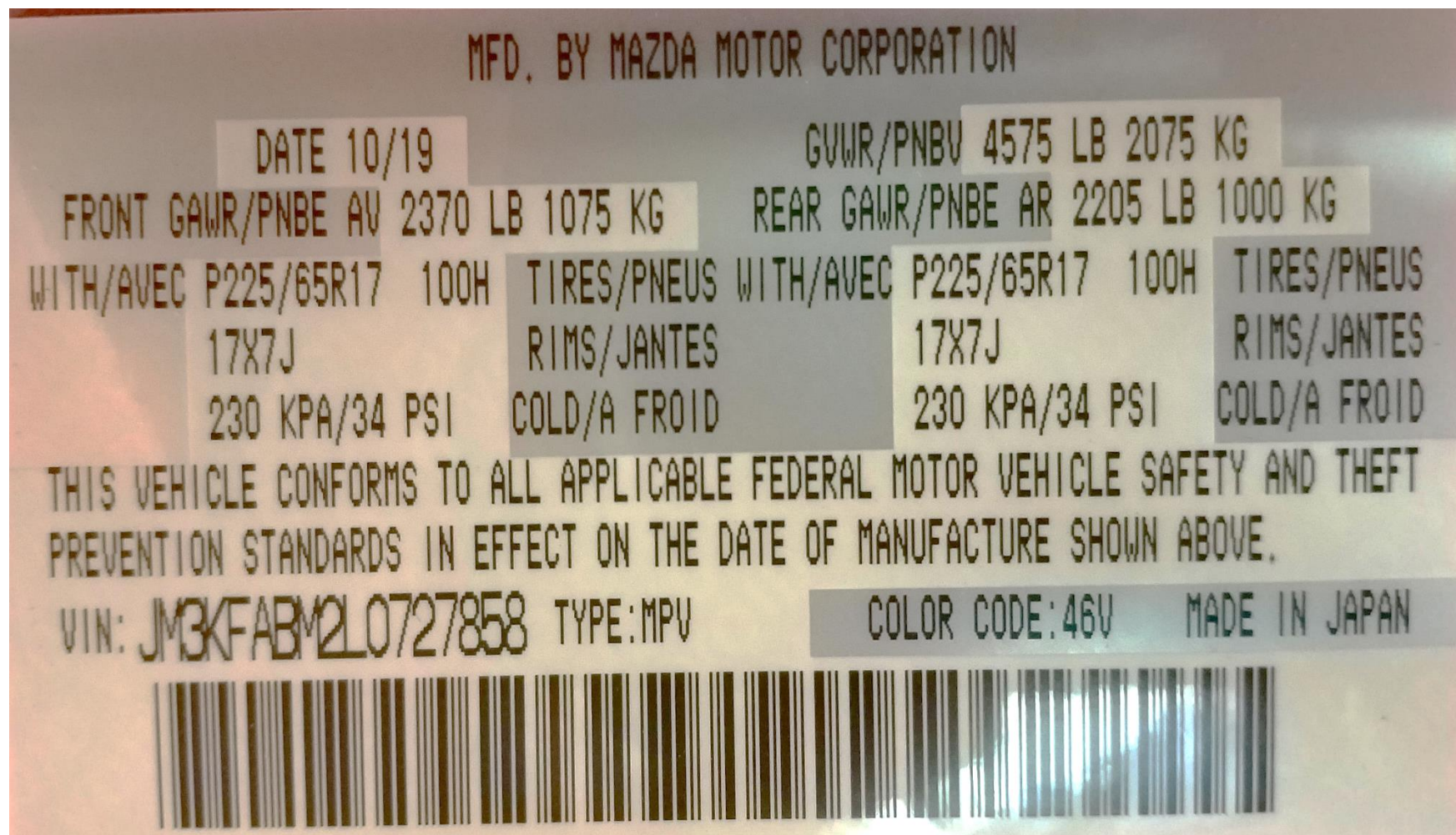
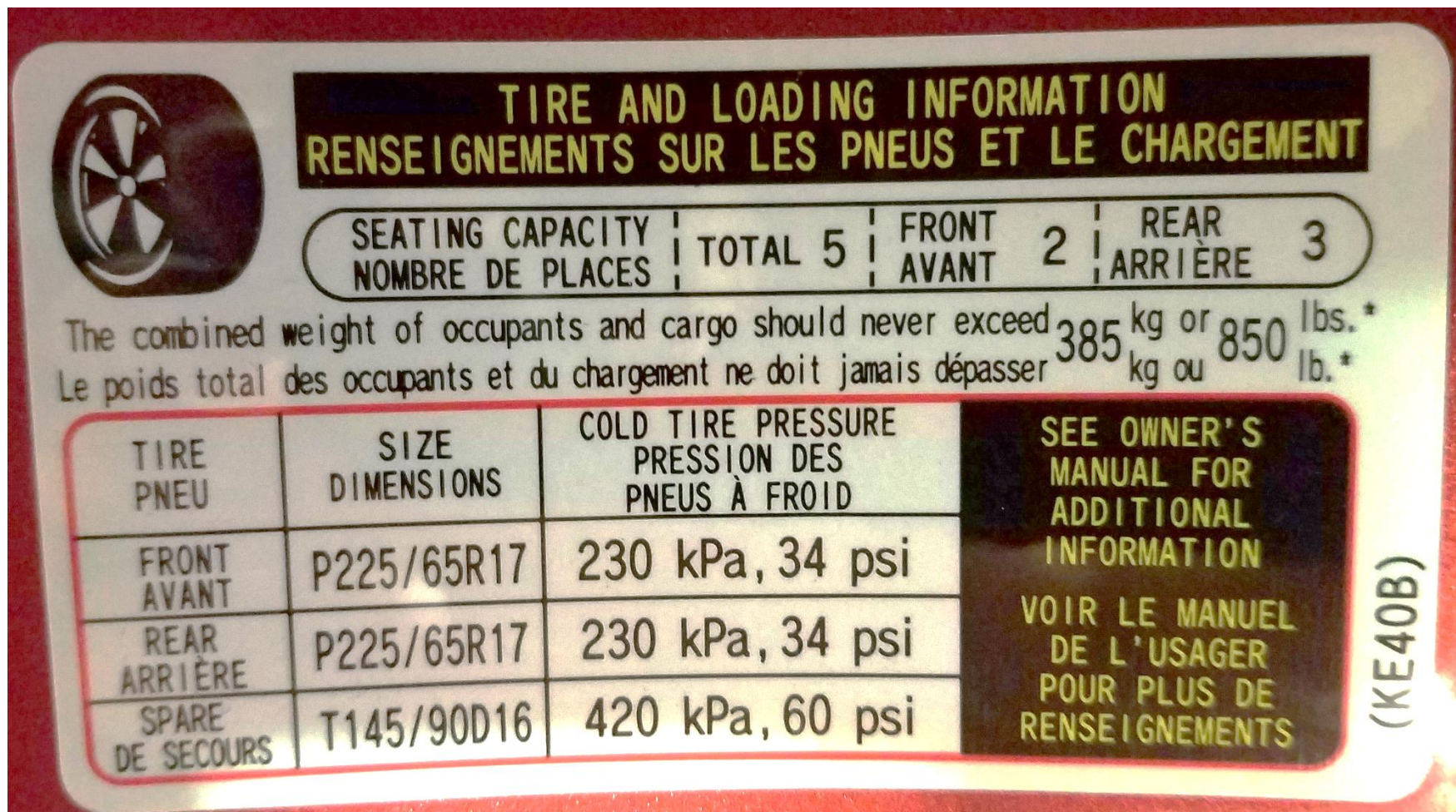


FIGURE 5.3
VEHICLE CERTIFICATION LABEL



2020 MAZDA CX-5
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FIGURE 5.4
 VEHICLE PLACARD



Scan for
Vehicle
Info and offers



2020 Mazda CX-5

Model: 2020 CX-5 SPORT FRONT WHEEL DRIVE
Exterior Color: SOUL RED CRYSTAL METALLIC
Interior Color: BLACK

EPA DOT Fuel Economy and Environment

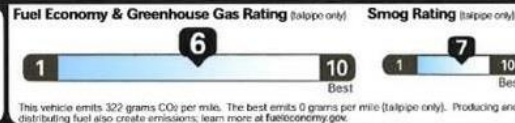
Gasoline Vehicle

Fuel Economy
28 MPG
combined city/hwy
25 city
31 highway
3.6 gallons per 100 miles

Small SUVs range from 18 to 120 MPG.
The best vehicle rates 136 MPG.

**You save
\$250**
in fuel costs
over 5 years
compared to the
average new vehicle.

**Annual fuel cost
\$1,450**



Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 27 MPG and costs \$7,500 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at \$2.70 per gallon. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.

fueleconomy.gov
Calculate personalized estimates and compare vehicles



PARTS CONTENT INFORMATION:

FOR VEHICLES IN THIS CARLINE:
U.S./CANADIAN PARTS CONTENT:
0%
MAJOR SOURCES OF FOREIGN
PARTS CONTENT: JAPAN 90%

NOTE: PARTS CONTENT DOES
NOT INCLUDE FINAL ASSEMBLY,
DISTRIBUTION, OR OTHER
NON-PARTS COSTS.

FOR THIS VEHICLE:
FINAL ASSEMBLY POINT:
HIROSHIMA, JAPAN
COUNTRY OF ORIGIN:
ENGINE: JAPAN
TRANSMISSION: JAPAN

This label is affixed pursuant to the Federal
Automobile Disclosure Act. Gasoline, License
and Title fees, State and Local taxes, and
Dealer installed options are not included.

STANDARD EQUIPMENT

ENGINE/MECHANICAL FEATURES

- SKYACTIV-G 2.5L ENGINE
- 187 HORSEPOWER; 186 LB-FT TORQUE
- SKYACTIV-DRIVE 6SPD SPORT MODE AT
- FRONT VENTILATED DISC BRAKES
- REAR SOLID DISC BRAKES

EXTERIOR FEATURES

- 17-INCH ALLOY WHEELS
- P225/65R17 ALL-SEASON TIRES
- RAIN-SENSING WINDSHIELD WIPERS
- FIXED-INTERMITTENT REAR WIPER
- BODY-COLORED REAR ROOF SPOILER
- POWER SIDE MIRRORS W/TURN LAMPS

INTERIOR FEATURES

- 5-PASSENGER SEATING
- CLOTH-TRIMMED SEATS
- 6-WAY MANUAL DRIVER'S SEAT
- LEATHER-WRAPPED STEERING WHEEL
- LEATHER-WRAPPED SHIFT KNOB
- POWER AUTOMATIC DOOR LOCKS
- POWER WINDOWS W/ONE-TOUCH UP/DOWN
- ELECTRONIC PARKING BRAKE
- REMOTE KEYLESS ENTRY
- PUSH BUTTON ENGINE START
- REARVIEW CAMERA

SAFETY AND SECURITY FEATURES

- 5-STAR CRASH TEST RATING
- 36K MI BUMPER-TO-BUMPER WARRANTY
- 24-HOUR ROADSIDE ASSISTANCE
- 5-PASSENGER 3-POINT SAFETY BELTS
- LATCH CHILD SAFETY SEAT ANCHORS
- ANTI-THEFT ENGINE IMMOBILIZER
- TIRE PRESSURE MONITORING SYSTEM
- BLIND SPOT MONITORING
- LANE DEPARTURE WARNING SYSTEM
- LANE KEEP ASSIST
- REAR CROSS TRAFFIC ALERT

- INDEPENDENT FRONT/REAR SUSPENSION
- FRONT & REAR STABILIZER BARS
- ELECTRIC POWER ASSISTED STEERING
- FRONT-WHEEL DRIVE
- G-VECTURING CONTROL PLUS

- LED HEADLIGHTS W/ AUTO ON/OFF
- DAYTIME RUNNING LIGHTS
- HIGH BEAM CONTROL
- ROOF MOUNTED SHARK FIN ANTENNA
- BRIGHT FINISH EXHAUST OUTLETS

- 7" COLOR TOUCH-SCREEN DISPLAY
- MULTI-FUNCTION COMMANDER CONTROL
- MID WITH TRIP COMPUTER
- AIR CONDITIONING
- AM/FM/HD 4-SPEAKER AUDIO
- BLUETOOTH HANDS-FREE PHONE/AUDIO
- AUX JACK / 2 USB INPUTS
- CENTER ARMREST W/COVERED STORAGE
- 40/20/40 SPLIT FOLD-DOWN RR SEAT
- DUAL COVERED VANITY MIRRORS
- CARPETED FLOOR MATS

- ABS WITH EBD AND BRAKE-ASSIST
- DYNAMIC STABILITY CONTROL
- TRACTION CONTROL SYSTEM
- ADVANCED DUAL FRONT AIRBAGS
- FRONT SIDE-IMPACT AIR BAGS
- FRONT & REAR SIDE AIR CURTAINS
- SMART BRAKE SUPPORT
- ADVANCED SMART CITY BRAKE SUPPORT
- HILL LAUNCH ASSIST
- MAZDA RADAR CRUISE CONTROL WITH STOP & GO

MSRP \$25,090

OPTIONAL EQUIPMENT

JCR SOUL RED CRYSTAL PAINT CHARGE
WLK WHEEL LOCKS

\$595
\$65

Total Vehicle and Options \$25,750
Delivery, Processing and Handling Fee \$1,045

Total MSRP \$26,795

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score ★★★★★
Based on the combined ratings of frontal, side and rollover.
Should ONLY be compared to other vehicles of similar size and weight.

Frontal Crash ★★★★★
Driver Passenger ★★★★★
Based on the risk of injury in a frontal impact.
Should ONLY be compared to other vehicles of similar size and weight.

Side Crash ★★★★★
Front seat ★★★★★
Rear seat ★★★★★
Based on the risk of injury in a side impact.

Rollover ★★★★★
Based on the risk of rollover in a single vehicle crash.

Star ratings range from 1 to 5 stars (★★★★★) with 5 being the highest.

Source: National Highway Traffic Safety Administration (NHTSA)

www.safercar.gov or 1-888-327-4236

SOLD TO: 61449

FRANK BOUCHER MAZDA RACINE
9601 WASHINGTON AVENUE
RACINE, WI 53408

SHIP TO: 61449

FRANK BOUCHER MAZDA RACINE
9601 WASHINGTON AVENUE
RACINE, WI 53408

JM3KFABM2L0727858



CX5-SP-2A--KBJ1NAB-MW--61449-20191217

MazdaUSA.com

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FIGURE 5.5
VEHICLE MONRONEY LABEL



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FIGURE 5.6
TIRE SHOWING MANUFACTURER



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FIGURE 5.7
TIRE SHOWING MODEL



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FIGURE 5.8
TIRE SHOWING SIZE, LOAD INDEX, AND SPEED SYMBOL



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FIGURE 5.9
TIRE SHOWING MAX LOAD RATING AND MAX INFLATION PRESSURE



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FIGURE 5.10
TIRE SHOWING SERIAL NUMBER



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FIGURE 5.11
 RIM SHOWING RIM SIZE WITH FLANGE DESIGNATION,
 MANUFACTURER SYMBOL, DATE OF MANUFACTURE SYMBOL,
 LETTER DESIGNATION FOR SOURCE OF PUBLISHED DIMENSIONS,
 AND ADDITIONAL RIM MARKINGS



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FIGURE 5.12
RIM SHOWING RIM CONTOUR FOR
FULL WIDTH OF CROSS SECTION



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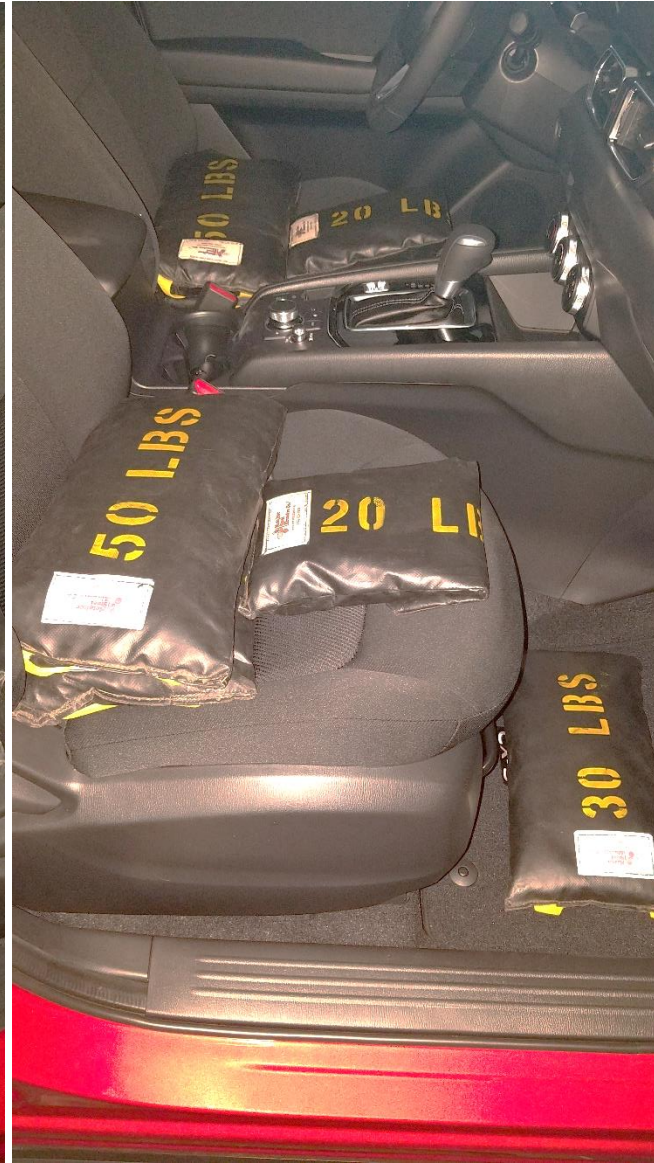


FIGURE 5.13
 VEHICLE FRONT DRIVER AND PASSENGER SEATS BALLASTED
 FOR NORMAL, FULL, AND MAXIMUM LOADS



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FIGURE 5.14
VEHICLE REAR SEATS BALLASTED FOR
NORMAL, FULL, AND MAXIMUM LOADS



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NHTSA NO. C20205400
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FIGURE 5.15
VEHICLE CARGO AREA BALLASTED FOR MAXIMUM LOAD



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FIGURE 5.16
VEHICLE ON WEIGHT SCALES