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**QUICK REFERENCE INDEX**

**NISSAN  
VERSA  
MODEL C11 SERIES**

<b>A GENERAL INFORMATION</b>	<b>GI General Information</b>
<b>B ENGINE</b>	<b>EM Engine Mechanical</b>
	<b>LU Engine Lubrication System</b>
	<b>CO Engine Cooling System</b>
	<b>EC Engine Control System</b>
	<b>FL Fuel System</b>
	<b>EX Exhaust System</b>
	<b>ACC Accelerator Control System</b>
	<b>CL Clutch System</b>
<b>C TRANSMISSION/ TRANSAXLE</b>	<b>MT Manual Transaxle</b>
	<b>AT Automatic Transaxle</b>
	<b>CVT CVT</b>
	<b>FAX Front Axle</b>
<b>D DRIVELINE/AXLE</b>	<b>RAX Rear Axle</b>
	<b>FSU Front Suspension</b>
<b>E SUSPENSION</b>	<b>RSU Rear Suspension</b>
	<b>WT Road Wheels &amp; Tires</b>
	<b>BR Brake System</b>
<b>F BRAKES</b>	<b>PB Parking Brake System</b>
	<b>BRC Brake Control System</b>
	<b>PS Power Steering System</b>
<b>G STEERING</b>	<b>STC Steering Control System</b>
	<b>SB Seat Belts</b>
<b>H RESTRAINTS</b>	<b>SRS Supplemental Restraint System (SRS)</b>
	<b>BL Body, Lock &amp; Security System</b>
	<b>GW Glasses, Window System &amp; Mirrors</b>
<b>I BODY</b>	<b>RF Roof</b>
	<b>EI Exterior &amp; Interior</b>
	<b>IP Instrument Panel</b>
	<b>SE Seat</b>
	<b>MTC Manual Air Conditioner</b>
	<b>SC Starting &amp; Charging System</b>
	<b>LT Lighting System</b>
<b>J AIR CONDITIONER</b>	<b>DI Driver Information System</b>
	<b>WW Wiper, Washer &amp; Horn</b>
	<b>BCS Body Control System</b>
	<b>LAN LAN System</b>
	<b>AV Audio Visual, Navigation &amp; Telephone System</b>
	<b>ACS Auto Cruise Control System</b>
	<b>PG Power Supply, Ground &amp; Circuit Elements</b>
	<b>MA Maintenance</b>
	<b>IDX Alphabetical Index</b>
	<b>L MAINTENANCE</b>
<b>M INDEX</b>	

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# FOREWORD

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This manual contains maintenance and repair procedures for the 2007 NISSAN VERSA.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

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## IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle.

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately. Service varies with the procedures used, the skills of the technician and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.



**NISSAN NORTH AMERICA, INC.**  
Technical Publications Department



# PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

Your comments are important to NISSAN and will help us to improve our Service Manuals. Use this form to report any issues or comments you may have regarding our Service Manuals. Please print this form and type or write your comments below. Mail or fax to:

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**SERVICE MANUAL: Model:** \_\_\_\_\_ **Year:** \_\_\_\_\_

**PUBLICATION NO. (Refer to Quick Reference Index):** \_\_\_\_\_

Please describe any Service Manual issues or problems in detail:

Page number(s) \_\_\_\_\_ *Note: Please include a copy of each page, marked with your comments.*

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**Are the trouble diagnosis procedures logical and easy to use? (circle your answer) YES NO**

If no, what page number(s)? \_\_\_\_\_ *Note: Please include a copy of each page, marked with your comments.*

Please describe the issue or problem in detail: \_\_\_\_\_

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**Is the organization of the manual clear and easy to follow? (circle your answer) YES NO**

Please comment: \_\_\_\_\_

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**What information should be included in NISSAN Service Manuals to better support you in servicing or repairing customer vehicles?**

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DATE: \_\_\_\_\_ YOUR NAME: \_\_\_\_\_ POSITION: \_\_\_\_\_

DEALER: \_\_\_\_\_ DEALER NO.: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE/PROV./COUNTRY: \_\_\_\_\_ ZIP/POSTAL CODE: \_\_\_\_\_

QUICK REFERENCE CHART: VERSA

PFP:00000

Engine Tune-Up Data  
GENERAL SPECIFICATIONS

ELS00252

Engine type		MR18DE
Cylinder arrangement		In-line 4
Displacement	cm <sup>3</sup> (cu in)	1,797 (109.65)
Bore and stroke	mm (in)	84.0 x 81.1 (3.307 x 3.192)
Valve arrangement		DOHC
Firing order		1-3-4-2
Number of piston rings	Compression	2
	Oil	1
Compression ratio		9.9
Compression pressure kPa (bar, kg/cm <sup>2</sup> , psi) / 250 rpm	Standard	1,500 (15.0, 15.3, 217.6)
	Minimum	1,200 (12.0, 12.2, 174)
	Differential limit between cylinders	100 (1.0, 1.0, 15)

DRIVE BELT

Tension of drive belt	Auto adjustment by auto-tensioner
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SPARK PLUG

Unit: mm (in)

Plug type	Iridium-tipped TYPE
Make	DENSO
Standard type	FXE20HR11
Spark plug gap	Nominal: 1.1 (0.043)

Front Wheel Alignment (Unladen\*1)

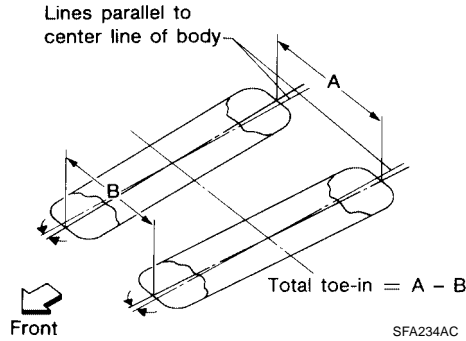
ELS00253

Camber Degree minute (Decimal degree)	RH	Minimum	- 1° 05' (- 1.08°)
		Nominal	- 0° 20' (- 0.33°)
		Maximum	0° 25' (0.42°)
	LH	Minimum	- 0° 55' (- 0.92°)
		Nominal	- 0° 10' (- 0.17°)
		Maximum	0° 35' (0.58°)
	Left and right difference (RH - LH)	Minimum	-0° 45' (-0.75°) or less
		Nominal	-0° 12' (-0.20°) or less
		Maximum	0° 21' (0.35°) or less
Caster Degree minute (Decimal degree)	RH	Minimum	4° 05' (4.08°)
		Nominal	4° 50' (4.83°)
		Maximum	5° 35' (5.58°)
	LH	Minimum	3° 55' (3.92°)
		Nominal	4° 40' (4.67°)
		Maximum	5° 25' (5.42°)
	Left and right difference (RH - LH)	Minimum	-0° 21' (-0.35°) or less
		Nominal	0° 12' (0.20°) or less
		Maximum	0° 45' (0.75°) or less

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Kingpin inclination Degree minute (Decimal degree)	Minimum	9° 10' (9.17°)
	Nominal	9° 55' (9.92°)
	Maximum	10° 40' (10.67°)



Total toe-in	Distance (A - B)	Minimum	0 mm (0 in)
		Nominal	1 mm (0.04 in)
		Maximum	2 mm (0.08 in)
	Angle (left or right, each side) Degree minute (Degree)	Minimum	0° 0' (0°)
		Nominal	0° 3' (0.05°)
		Maximum	0° 6' (0.10°)

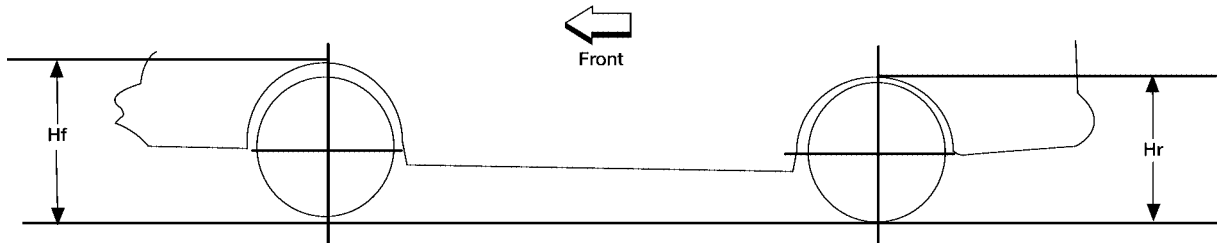
## Rear Wheel Alignment (Unladen\*)

ELS00254

Camber Degree minute (Decimal degree)	Minimum	-2° 01' (-2.02°)	
	Nominal	-1° 31' (-1.52°)	
	Maximum	-1° 01' (-1.02°)	
Total toe-in	Distance (A - B)	Minimum	1.0 mm (0.039 in)
		Nominal	5.0 mm (0.197 in)
		Maximum	9.0 mm (0.354 in)
	Angle (A - B)	Minimum	0° 3' (0.05°)
		Nominal	0° 14' (0.23°)
		Maximum	0° 24' (0.41°)

## Wheelarch Height (Unladen\*)

LEIA0085E



Applied model	185/65R15
Front (Hf)	686 mm (26.97 in)
Rear (Hr)	684 mm (27.01 in)

\*: Fuel, engine coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

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ELS00256

## Brake

Front brake	Brake model	CLZ25VA
	Cylinder bore diameter	57.2 mm (2.252 in)
	Pad Length × width × thickness	115.0 mm × 41.0 mm × 9.5 mm (4.528 in × 1.614 in × 0.374 in)
	Rotor outer diameter × thickness	260 mm × 22.0 mm (10.24 in × 0.866 in)
Rear brake	Brake model	LT20D
	Cylinder bore diameter	15.87 mm (0.625 in)
	Lining Length × width × thickness	194.1 mm × 30.0 mm × 4.0 mm (7.642 in × 1.181 in × 0.157 in)
	Drum outer diameter	228.6 mm (9.000 in)
Master cylinder	Cylinder bore diameter	22.22 mm (0.875 in)
Control valve	Valve model	Electric brake force distribution
Brake booster	Booster model	C255
	Diaphragm diameter	255 mm (10.04 in)
Recommended brake fluid		Genuine NISSAN Super Heavy Duty Brake Fluid, or equivalent DOT 3 (US FMVSS No. 116)

### Front Brake Repair Limits

Unit: mm (in)

Brake model		CLZ22VA
Brake pad	Standard thickness (new)	9.5 (0.374)
	Repair limit thickness	2.0 (0.079)
Disc rotor	Standard thickness (new)	24.0 (0.945)
	Repair limit thickness	22.0 (0.866)
	Runout limit	0.04 (0.0016)
	Maximum uneven wear (measured at 8 positions)	0.02 mm (0.0008 in) or less

### Rear Brake Repair Limits

Unit: mm (in)

Brake model		LT20D
Brake lining	Standard thickness (new)	4.0 (0.157)
	Repair limit thickness	1.5 (0.059)
Drum	Standard inner diameter (new)	228.6 (9.000)
	Repair limit inner diameter	230.0 (9.055)

### Brake Pedal

Unit: mm (in)

Brake pedal free height (from dash panel top surface)	A/T, CVT model	172.4 - 182.4 (6.79 - 7.18)
	M/T model	162.3 - 172.3 (6.39 - 6.78)
Brake pedal depressed height [under a force of 490 N (50 kg-f, 110 lb-f) with the engine running]	A/T, CVT model	98 (3.86) or more
	M/T model	90 (3.54) or more
Clearance between brake pedal lever and the threaded end of stop lamp switch		0.74 - 1.96 (0.0291 - 0.0772)
Pedal play		3 - 11 (0.12 - 0.43)

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ELS00257

## Refill Capacities

Description		Capacity (Approximate)		
		Liter	US measure	Imp measure
Fuel		50.0	13 1/4 gal	11 gal
Engine oil Drain and refill	With oil filter change	3.9	4 1/8 qt	3 3/8 qt
	Without oil filter change	3.7	3 7/8 qt	3 1/4 qt
Dry engine (engine overhaul)		4.9	5 1/8 qt	4 3/8 qt
Cooling system (with reservoir at max level)		6.8	7 1/4 qt	6 qt
Manual transaxle fluid (MTF)		2.0	4 1/4 pt	3 1/2 pt
Automatic transaxle fluid (ATF)		7.9	8 3/8 qt	7 qt
CVT fluid		8.3	8 3/4 qt	7 1/4 qt
Brake and clutch fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.5	4 3/4 qt	4 qt
Air conditioning system refrigerant		0.45 ± 0.05 kg	0.99 ± 0.11 lb	0.99 ± 0.11 lb
Air conditioning system oil	Type 1	120 m ℓ	4.1 fl oz	4.2 fl oz
	Type 2	100 m ℓ	3.4 fl oz	3.5 fl oz