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NISSAN

MURANO

MODEL Z50 SERIES

QUICK REFERENCE INDEX

A GENERAL INFORMATION	GI General Information
B ENGINE	EM Engine Mechanical
	LU Engine Lubrication System
	CO Engine Cooling System
	EC Engine Control System
	FL Fuel System
	EX Exhaust System
	ACC Accelerator Control System
C TRANSMISSION/ TRANSAXLE	CVT CVT
D DRIVELINE/AXLE	TF Transfer
	PR Propeller Shaft
	RFD Rear Final Drive
	FAX Front Axle
	RAX Rear Axle
	FSU Front Suspension
E SUSPENSION	RSU Rear Suspension
	WT Road Wheels & Tires
	BR Brake System
	PB Parking Brake System
F BRAKES	BRC Brake Control System
	PS Power Steering System
	SB Seat Belts
G STEERING	SRS Supplemental Restraint System (SRS)
	BL Body, Lock & Security System
H RESTRAINTS	GW Glasses, Window System & Mirrors
	RF Roof
	EI Exterior & Interior
	IP Instrument Panel
	SE Seat
	AP Adjustable Pedal
	ATC Automatic Air Conditioner
	SC Starting & Charging System
	LT Lighting System
	DI Driver Information System
I BODY	WW Wiper, Washer & Horn
	BCS Body Control System
	LAN LAN System
	AV Audio Visual, Navigation & Telephone System
	ACS Auto Cruise Control System
	PG Power Supply, Ground & Circuit Elements
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FOREWORD

This manual contains maintenance and repair procedure for the 2006 NISSAN MURANO.

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.

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.

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QUICK REFERENCE CHART MURANO

PFP:00000

ENGINE TUNE-UP DATA (VQ35DE)

ELS0003W

Engine model				VQ35DE		
Firing order				1-2-3-4-5-6		
Idle speed CVT (In “P” or “N” position)rpm				650 ± 50		
Ignition timing (BTDC at idle speed) CVT (In “P” or “N” position)				15° ± 5°		
CO% at idle				0.7 - 9.9 % and engine runs smoothly		
Drive Belt	Deflection adjustment		Unit: mm (in)	Tension adjustment		Unit: N (kg, lb)
	Used belt		New belt	Used belt		New belt
	Limit	After adjustment		Limit	After adjustment	
Alternator and A/C compressor belt	7 (0.28)	4.2 - 4.6 (0.17 - 0.18)	3.7 - 4.1 (0.15 - 0.16)	294 (30, 66)	730 - 818 (74.5 - 83.5, 164 - 184)	838 - 926 (85.5 - 94.5, 188 - 208)
Power steering oil pump belt	11 (0.43)	7.3 - 8 (0.29 - 0.30)	6.5 - 7.2 (0.26- 0.28)	196 (20, 44)	495 - 583 (50.5 - 59.5, 111 - 131)	603 - 691 (61.5 - 70.5, 135.6 - 155.4)
Applied pushing force	98N (10kg, 22lb)			—		
Radiator cap relief pressure			kPa (kg/cm ² , psi)			
Standard			78 - 98 (0.8 - 1.0, 11 - 14)			
Limit			59 (0.6, 9)			
Cooling system leakage testing pressure			kPa (kg/cm ² , psi)	157 (1.6, 23)		
Compression pressure			kPa (kg/cm ² , psi)/rpm			
Standard			1,275 (13.0, 185)/300			
Minimum			981 (10.0, 142)/300			
Spark plug	Make		NGK			
	Standard type		PLFR5A-11			
	Hot type		PLFR4A-11			
	Cold type		PLFR6A-11			
	Gap (Nominal)		mm (in)	1.1 (0.043)		

FRONT WHEEL ALIGNMENT (Unladen*)

ELS0003X

Axle			2DW	AWD
Camber	Degree minute (Decimal degree)	Minimum	– 1° 05' (– 1.08°)	
		Nominal	– 0° 20' (– 0.33°)	
		Maximum	0° 25' (0.41°)	
		Left and right difference	45' (0.75°) or less	
Caster	Degree minute (Decimal degree)	Minimum	1° 45' (1.75°)	1° 50' (1.83°)
		Nominal	2° 30' (2.50°)	2° 35' (2.58°)
		Maximum	3° 15' (3.25°)	3° 20' (3.33°)
		Left and right difference	45' (0.75°) or less	
Kingpin inclination	Degree minute (Decimal degree)	Minimum	13° 35' (13.58°)	
		Nominal	14° 20' (14.33°)	
		Maximum	15° 05' (15.08°)	
Total toe-in	Distance (A – B)	Minimum	– 0.5 mm (– 0.02 in)	
		Nominal	0.5 mm (0.02 in)	
		Maximum	1.5 mm (0.06 in)	
	Angle (left plus right) Degree minute (Degree)	Minimum	– 1' (– 0.02°)	
		Nominal	1' (0.02°)	
		Maximum	3' (0.05°)	
Wheel turning angle (Full turn)	Inside Degree minute (Decimal degree)	Minimum	34° 30' (34.5°)	
		Nominal	38° 00' (38.0°)	
		Maximum	39° 00' (39.0°)	
	Outside Degree minute (Decimal degree)	Nominal	31° 30' (31.5°)	

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

REAR WHEEL ALIGNMENT (Unladen*)

ELS0003Y

Camber Degree minute (Decimal degree)		Minimum	– 1° 16' (– 1.27°)
		Nominal	– 0° 46' (– 0.77°)
		Maximum	– 0° 16' (– 0.27°)
Total toe-in	Distance (A – B)	Minimum	1.4 mm (0.055 in)
		Nominal	3.2 mm (0.126 in)
		Maximum	5.0 mm (0.197 in)
	Angle (left plus right) Degree minute (Degree)	Minimum	3' (0.05°)
		Nominal	7' (0.12°)
		Maximum	11' (0.18°)

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

BRAKE

ELS0003Z

Front brake	Pad wear limit	2.0 (0.079)
	Rotor repair limit	26.0 mm (1.024 in)
Rear brake	Pad wear limit	2.0 mm (0.079 in)
	Rotor repair limit	14.0 mm (0.551 in)
Pedal free height		199.5 - 209.5 mm (7.85 - 8.25 in)
Pedal depressed height*		120 mm (4.72 in)

* : Under force of 490 N(50 kg, 110 lb) with engine running.

REFILL CAPACITIES

ELS00040

UNIT		Liter	US measure
Fuel tank		82	21-5/8 gal
Coolant (With reservoir tank at "MAX" level)		9.2	9-3/4 qt
Engine	Drain and refill		
	With oil filter change	4.0	4-1/4 qt
	Without oil filter change	3.7	3-7/8 qt
	Dry engine (Overhaul)	5.0	5-1/4 qt
Transmission	CVT	10.2	10-6/8 qt
Transfer		0.31	5/8 pt
Differential carrier		0.55	1-1/8 pt
Power steering system		1.0	1-1/8 qt
Air conditioning system	Compressor oil	0.15	5.03 fl oz
	Refrigerant	0.525 kg	1.16 lb