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**QUICK REFERENCE INDEX**



**Q45**

**MODEL F50 SERIES**



**INFINITI**

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<b>A GENERAL INFORMATION</b>	GI General Information
<b>B ENGINE</b>	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
	AT Automatic Transmission
<b>C TRANSMISSION/ TRANSAXLE</b>	
<b>D DRIVELINE/AXLE</b>	PR Propeller Shaft
	RFD Rear Final Drive
	FAX Front Axle
	RAX Rear Axle
<b>E SUSPENSION</b>	FSU Front Suspension
	RSU Rear Suspension
	WT Road Wheels & Tires
	SCS Suspension Control System
<b>F BRAKES</b>	BR Brake System
	PB Parking Brake System
	BRC Brake Control System
<b>G STEERING</b>	PS Power Steering System
	STC Steering Control System
<b>H RESTRAINTS</b>	SB Seat Belts
	SRS Supplemental Restraint System (SRS)
<b>I BODY</b>	BL Body, Lock & Security System
	GW Glasses, Window System & Mirrors
	RF Roof
	EI Exterior & Interior
	IP Instrument Panel
	SE Seat
<b>J AIR CONDITIONER</b>	ATC Automatic Air Conditioner
<b>K ELECTRICAL</b>	SC Starting & Charging System
	LT Lighting System
	DI Driver Information System
	WW Wiper, Washer & Horn
	LAN LAN System
	AV Audio, Visual, Navigation & Telephone System
	ACS Auto Cruise Control System
	PG Power Supply, Ground & Circuit Elements
<b>L MAINTENANCE</b>	MA Maintenance
<b>M INDEX</b>	IDX Alphabetical Index



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# FOREWORD

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This manual contains maintenance and repair procedure for the 2006 INFINITI Q45.

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.



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**QUICK REFERENCE CHART Q45**  
**ENGINE TUNE-UP DATA (VK45DE)**

PFP:00000

ELS0003W

Engine model	VK45DE	
Firing order	1-8-7-3-6-5-4-2	
Idle speed A/T (In "P" or "N" position) rpm	650±50	
Ignition timing (BTDC at idle speed)	12°±5°	
Tensions of drive belts	Auto adjustment by auto tensioner	
Radiator cap relief pressure Standard kPa (kg/cm <sup>2</sup> , psi)	78-98 (0.8-1.0 , 11-14)	
Cooling system leakage testing pressure kPa (kg/cm <sup>2</sup> , psi)	157(1.6, 23)	
Compression pressure Standard kPa (kg/cm <sup>2</sup> , psi)/rpm	1,320 (13.5, 191) /300	
Minimum	1,130 (11.5, 164)/300	
Spark plug Standard type	PLFR5A - 11	
Hot type	PLFR4A - 11	
Cold type	PLFR6A - 11	

**FRONT WHEEL ALIGNMENT (Unladen\* )**

ELS0003X

Camber	Degree minute (Decimal degree)	Minimum	- 1° 30' (- 1.50°)
		Nominal	- 0° 45' (- 0.75°)
		Maximum	0° 00' (0.00°)
		Left and right difference	45' (0.75°) or less
Caster	Degree minute (Decimal degree)	Minimum	5° 25' (5.42°)
		Nominal	6° 10' (6.17°)
		Maximum	6° 55' (6.92°)
		Left and right difference	45' (0.75°) or less
Kingpin inclination	Degree minute (Decimal degree)	Minimum	13° 15' (13.25°)
		Nominal	14° 00' (14.00°)
		Maximum	14° 45' (14.75°)
Total toe-in Distance (A - B) mm (in)	Degree minute (Decimal degree)	Nominal	1 (0.04)
		Minimum	0' (0°)
		Nominal	3' (0.05°)
		Maximum	6' (0.10°)
Wheel turning angle (Full turn)	Degree minute (Decimal degree)	Minimum	39° 45' (39.75°)
		Nominal	42° 45' (42.75°)
		Maximum	43° 45' (43.75°)
	Outside	Degree minute (Decimal degree)	Nominal

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

**REAR WHEEL ALIGNMENT (Unladen\*)**

ELS0003Y

Tire			17 inch	18 inch	19 inch
Camber Degree minute (Decimal degree)	Minimum		- 0° 55' (- 0.92°)	- 1° 05' (- 1.08°)	- 1° 10' (- 1.17°)
	Nominal		- 0° 25' (- 0.42°)	- 0° 35' (- 0.58°)	- 0° 40' (- 0.67°)
	Maximum		0° 05' (0.08°)	- 0° 05' (-0.08°)	- 0° 10' (-0.17°)
Total toe-in Distance (A-B)	Minimum		- 2.0 (- 0.079)	- 1.6 (- 0.063)	- 1.2 (- 0.047)
	Nominal		0.8 (0.031)	1.2 (0.047)	1.6 (0.063)
	Maximum	mm (in)	3.6 (0.142)	4.0 (0.157)	4.4 (0.173)
Angle (left plus right) Degree minute (Decimal degree)	Minimum		- 5' (0.08°)	- 4' (0.07°)	- 3' (0.05°)
	Nominal		2' (0.03°)	3' (0.05°)	4' (0.07°)
	Maximum		9' (0.15°)	10' (0.17°)	11' (0.18°)

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

**BRAKE**

ELS0003Z

Unit : mm ( in )

Front brake	
Pad wear limit	2.0 (0.079)
Rotor repair limit	26.0 (1.02)
Rear brake	
Pad wear limit	2.0 (0.079)
Rotor repair limit	14.0 (0.551)
Pedal free height	192.4 - 202.4 (7.57 - 7.97)
Pedal depressed height*	90 (3.54) or more

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

**REFILL CAPACITIES**

ELS00040

UNIT		Liter	US measure
Fuel tank		80	21 - 1/8 gal
Coolant (With reservoir tank)		10.3	10 - 7/8 qt
Engine*	Drain and refill		
	With oil filter change	5.6	5 - 7/8 qt
	Without oil filter change	5.0	5 - 1/4 qt
	Dry engine (overhall)	6.7	7 - 1/8 qt
Transmission	A/T	10.3	10 - 7/8 qt
Differential carrier		1.4	3 pt
Power steering system		1.0	1 - 1/8 qt
Air conditioning system	Compressor oil	0.18	6.0 fl oz
	Refrigerant	0.60 kg	1.32 lb

\* : For further details, see "Changing Engine Oil" in MA section.