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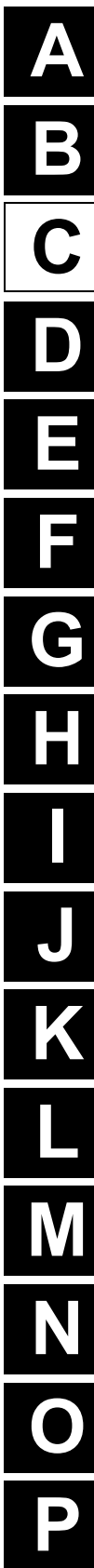


MODEL L50 SERIES

**QUICK REFERENCE INDEX**

<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>STR Starting System</b>
	<b>ACC Accelerator Control System</b>
<b>C</b>	
<b>D TRANSMISSION &amp; DRIVE-LINE</b>	<b>TM Transaxle &amp; Transmission</b>
	<b>DLN Driveline</b>
	<b>FAX Front Axle</b>
	<b>RAX Rear Axle</b>
<b>E SUSPENSION</b>	<b>FSU Front Suspension</b>
	<b>RSU Rear Suspension</b>
	<b>WT Road Wheels &amp; Tires</b>
<b>F BRAKES</b>	<b>BR Brake System</b>
	<b>PB Parking Brake System</b>
	<b>BRC Brake Control System</b>
<b>G STEERING</b>	<b>ST Steering System</b>
	<b>STC Steering Control System</b>
	<b>SB Seat Belt</b>
<b>H RESTRAINTS</b>	<b>SBC Seat Belt Control System</b>
	<b>SR SRS Airbag System</b>
	<b>SRC SRS Airbag Control System</b>
	<b>VTL Ventilation System</b>
	<b>HA Heater &amp; Air Conditioning System</b>
<b>I VENTILATION, HEATER &amp; AIR CONDITIONER</b>	<b>HAC Heater &amp; Air Conditioning Control System</b>
	<b>INT Interior</b>
<b>J BODY INTERIOR</b>	<b>IP Instrument Panel</b>
	<b>SE Seat</b>
	<b>ADP Automatic Drive Positioner</b>
	<b>DLK Door &amp; Lock</b>
<b>K BODY EXTERIOR, DOORS, ROOF &amp; VEHICLE SECURITY</b>	<b>SEC Security Control System</b>
	<b>GW Glass &amp; Window System</b>
	<b>PWC Power Window Control System</b>
	<b>RF Roof</b>
	<b>EXT Exterior</b>
	<b>BRM Body Repair Manual</b>
	<b>MIR Mirrors</b>
<b>L DRIVER CONTROLS</b>	<b>EXL Exterior Lighting System</b>
	<b>INL Interior Lighting System</b>
	<b>WW Wiper &amp; Washer</b>
	<b>DEF Defogger</b>
	<b>HRN Horn</b>
	<b>PWO Power Outlet</b>
	<b>BCS Body Control System</b>
	<b>LAN LAN System</b>
	<b>PCS Power Control System</b>
	<b>CHG Charging System</b>
<b>PG Power Supply, Ground &amp; Circuit Elements</b>	
<b>N DRIVER INFORMATION &amp; MULTIMEDIA</b>	<b>MWI Meter, Warning Lamp &amp; Indicator</b>
	<b>WCS Warning Chime System</b>
	<b>AV Audio, Visual &amp; Navigation System</b>
<b>O CRUISE CONTROL</b>	<b>CCS Cruise Control System</b>
	<b>DAS Driver Assistance System</b>
	<b>DMS Drive Mode System</b>
<b>P MAINTENANCE</b>	<b>MA Maintenance</b>

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# FOREWORD

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This manual contains maintenance and repair procedure for the 2014 INFINITI QX60.

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

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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.





**PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!**

**INFINITI®**

Your comments are important to INFINITI 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:

Nissan North America, Inc.  
Technical Service Information  
39001 Sunrise Drive, P.O. Box 9200  
Farmington Hills, MI USA 48331  
FAX: (248) 488-3880

**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 INFINITI 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: QX60

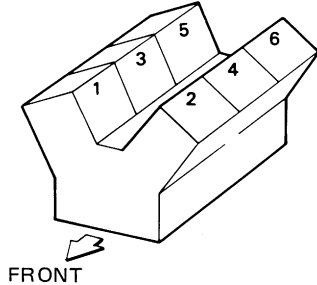
Engine Tune-up Data

INFOID:000000009914939

GENERAL SPECIFICATIONS

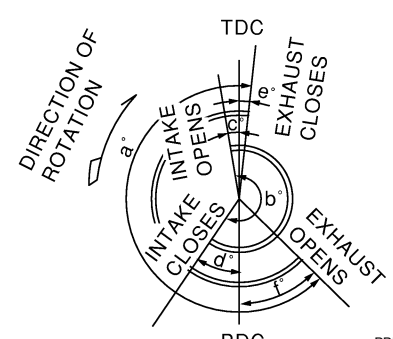
Cylinder arrangement		V-6
Displacement cm <sup>3</sup> (cu in)		3,498 (213.45)
Bore and stroke mm (in)		95.5 x 81.4 (3.760 x 3.205)
Valve arrangement		DOHC
Firing order		1-2-3-4-5-6
Number of piston rings	Compression	2
	Oil	1
Number of main bearings		4
Compression ratio		10.6:1
Compression pressure kPa (kg/cm <sup>2</sup> , psi)/300 rpm	Standard	1,275 (13.0, 185)
	Minimum	981 (10.0, 142)
	Differential limit between cylinders	98 (1.0, 14)

Cylinder number



SEM713A

Valve timing  
(Valve timing control - "OFF")



PBIC0187E

Unit: degree

a	b	c	d	e	f
240	240	-10	70	10	50

Drive Belt

INFOID:000000009914940

DRIVE BELT

Tension of drive belt	Belt tension is not necessary, as it is automatically adjusted by drive belt auto-tensioner.
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Spark Plug

INFOID:000000009914941

SPARK PLUG

Unit: mm (in)

Make	DENSO	
Standard type*	FXE22HR11	
Gap	Standard	1.1 (0.043)

\*: Always check with the Parts Department for the latest parts information.

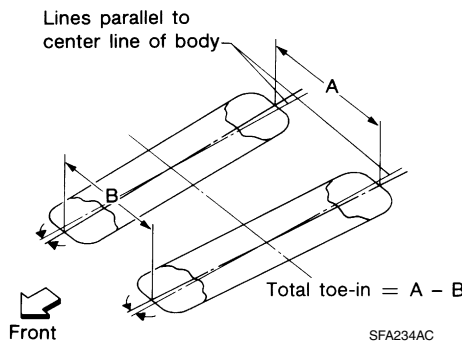
Front Wheel Alignment (Unladen\*<sup>1</sup>)

INFOID:000000009914938

**WARNING:**

**If the vehicle is equipped with the ICC cruise control system and the rear toe has been adjusted during a wheel alignment, the ICC sensor must be aligned.**

Item		Standard	
Measurement wheel		(LH) side	(RH) side
Camber Degree minute (Decimal degree)	Minimum	-1° 00' (-1.00°)	-1° 15' (-1.25°)
	Nominal	-0° 15' (-0.25°)	-0° 30' (-0.50°)
	Maximum	0° 30' (0.50°)	0° 15' (0.25°)
	(LH) and (RH) difference* <sup>2</sup>	-0° 15' ± 0° 33' (0.25° ± 0.55°)	
Caster Degree minute (Decimal degree)	Minimum	3° 55' (3.92°)	
	Nominal	4° 40' (4.67°)	
	Maximum	5° 25' (5.42°)	
	(LH) and (RH) difference* <sup>2</sup>	0.30' (0.50°) Maximum	
Kingpin inclination Degree minute (Decimal degree)	Minimum	11° 55' (11.92°)	12° 10' (12.17°)
	Nominal	12° 40' (12.67°)	12° 55' (12.92°)
	Maximum	13° 25' (13.42°)	13° 40' (13.67°)



Total toe-in	Distance (A - B)	Minimum	Out 0.6 mm (Out 0.024 in)
		Nominal	In 1.4 mm (In 0.055 in)
		Maximum	In 3.4 mm (In 0.134 in)
	Angle (LH) and (RH) Degree minute (Decimal degree)	Minimum	Out 0° 3' 36" (Out 0.06°)
		Nominal	In 0° 6' 14" (In 0.10°)
		Maximum	In 0° 15' 36" (In 0.26°)

\*1 Fuel, engine coolant, and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

\*2: The difference when assuming the (LH) side is the standard.

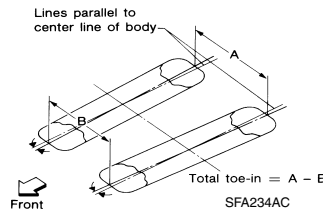
Rear Wheel Alignment (Unladen\*)

INFOID:000000009914936

**WARNING:**

If the vehicle is equipped with the ICC cruise control system and the rear toe has been adjusted during a wheel alignment, the ICC sensor must be aligned.

Item		Standard
Camber Degree minute (Decimal degree)	Minimum	-1° 05' (-1.08°)
	Nominal	-0° 35' (-0.58°)
	Maximum	-0° 05' (-0.08°)



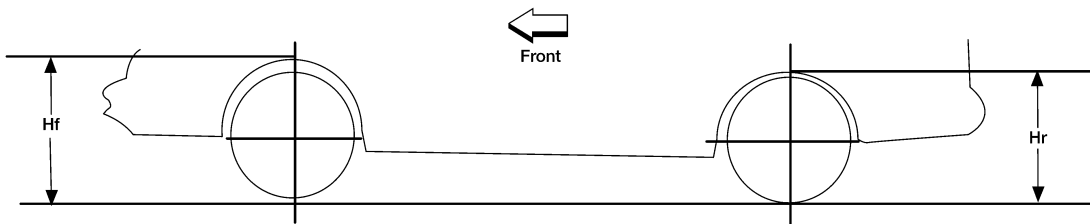
Total toe-in	Distance (A - B)	Minimum	Out 0.8 mm (Out 0.031 in)
		Nominal	In 2.2 mm (In 0.087 in)
		Maximum	In 5.2 mm (In 0.205 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	Out 0° 2' 24" (Out 0.04°)
		Nominal	In 0° 9' 36" (In 0.16°)
		Maximum	In 0° 21' 36" (In 0.36°)

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

Wheelarch Height

INFOID:000000009914937

UNITED STATES

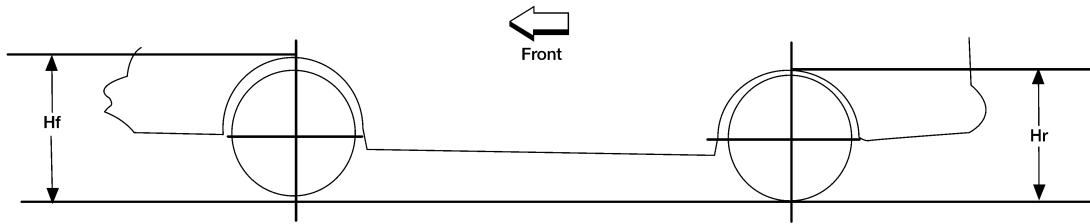


LEIA0085E

Drive type	FWD			AWD		
Tire size	235/65R18		235/55R20	235/65R18		235/55R20
Grade	Base	Premium		Base	Premium	Premium
Front (Hf)	822 mm (32.36 in)	822 mm (32.36 in)	821 mm (32.32 in)	822 mm (32.36 in)	821 mm (32.32 in)	820 mm (32.28 in)
Rear (Hr)	828 mm (32.60 in)	827 mm (32.56 in)	826 mm (32.52 in)	827 mm (32.56 in)		825 mm (32.48 in)

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

CANADA



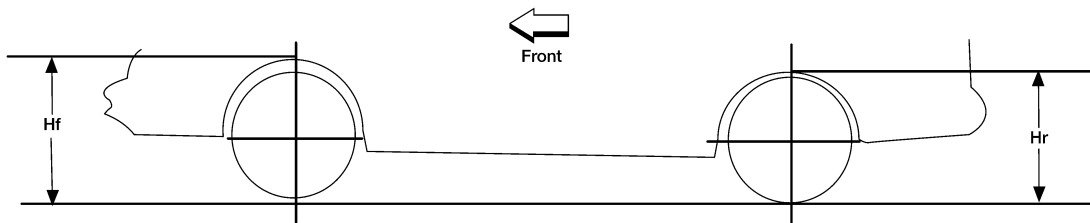
LEIA0085E

Drive type	AWD		
Tire size	235/65R18		235/55R20
Grade	Base	Premium	Premium
Front (Hf)	822 mm (32.36 in)	822 mm (32.36 in)	821 mm (32.32 in)
Rear (Hr)	828 mm (32.60 in)	827 mm (32.56 in)	826 mm (32.52 in)

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

MEXICO

Unit: mm (in)



LEIA0085E

Drive type	AWD	
Tire size	235/65R18	
Grade	Premium	
Front (Hf)	822 (32.36)	
Rear (Hr)	827 (32.56)	

Measure value under unladen\* conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

Brake Specifications

INFOID:000000009914934

Unit: mm (in)

Front brake	Cylinder bore diameter	45.0 (1.772) × 2
	Pad length × width × thickness	131.4 (5.173) × 53.0 (2.087) × 10.0 (0.394)
	Rotor outer diameter × thickness	320.0 (12.598) × 28.0 (1.102)
Rear brake	Cylinder bore diameter	42.86 (1.6874)
	Pad length × width × thickness	83.0 (3.268) × 33.0 (1.299) × 8.5 (0.335)
	Rotor outer diameter × thickness	308 (12.126) × 16.0 (0.630)
Master cylinder	Cylinder bore diameter	26.99 (1.063)
Control valve	Valve type	Electric brake force distribution

# QUICK REFERENCE CHART: QX60

2014

## Brake Pedal

INFOID:000000009914935

Unit: mm (in)

Item	Standard
Brake pedal height (H1)	214.2 – 224.2 (8.43 – 8.82)
Clearance (A) between brake pedal bracket, stop lamp switch and ASCD cancel switch contact ends	0.74 – 1.96 (0.0291 – 0.0772)
Depressed brake pedal height (H2) [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	75.1 (2.96)

## Front Disc Brake

INFOID:000000009914932

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
Disc rotor	Wear thickness	26.0 (1.024)
	Thickness variation (measured at 8 positions)	0.008 (0.0003)
	Runout (with disc rotor attached to the vehicle)	0.040 (0.0016) or less

## Rear Disc Brake

INFOID:000000009914933

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
Disc rotor	Wear thickness	14.0 (0.551)
	Thickness variation (measured at 8 positions)	0.020 (0.0008)
	Runout (with disc rotor attached to the vehicle)	0.050 (0.0020) or less

## FOR USA AND CANADA : Fluids and Lubricants

INFOID:000000009914738

Description	Capacity (Approximate)		
	Metric	US measure	Imp measure
Fuel	74.0 ℓ	19-1/2 gal	16-1/4 gal
Engine oil Drain and refill	With oil filter change	4.8 ℓ	5-1/8 qt
	Without oil filter change	4.5 ℓ	4-3/4 qt
	Dry engine (Overhaul)	5.1 ℓ	5-3/8 qt
Cooling system (with reservoir at MAX level)	9.6 ℓ	10-1/8 qt	8-1/2 qt
CVT fluid	8.8 ℓ	9-1/4 qt	7-3/4 qt
Differential gear oil	0.5 ℓ	1 pt	7/8 pt
Transfer fluid	0.31 ℓ	5/8 pt	1/2 pt
Power steering fluid (E-PSF)	1.0 ℓ	2-1/8 qt	1-3/4 qt
Brake fluid	—	—	—
Multi-purpose grease	—	—	—
Windshield washer fluid	4.6 ℓ	4-7/8 qt	4 qt



# QUICK REFERENCE CHART: QX60

2014

Description	Capacity (Approximate)		
	Metric	US measure	Imp measure
Air conditioning system refrigerant	0.83 ± 0.03 kg	1.83 ± 0.07 lb	1.83 ± 0.07 lb
Air conditioning system oil	230 mℓ	7.8 fl oz	8.1 fl oz

## FOR MEXICO : Fluids and Lubricants

INFOID:000000009914741

		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		74.0 ℓ	19-1/2 gal	16-1/4 gal
Engine oil Drain and refill	With oil filter change	4.8 ℓ	5-1/8 qt	4-1/4 qt
	Without oil filter change	4.5 ℓ	4-3/4 qt	4 qt
	Dry engine (engine overhaul)	5.1 ℓ	5-3/8 qt	4-1/2 qt
Cooling system (with reservoir at MAX line)		9.6 ℓ	10-1/8 qt	8-1/2 qt
CVT fluid		8.8 ℓ	9-1/4 qt	7-3/4 qt
Differential gear oil		0.5 ℓ	1 pt	7/8 pt
Transfer fluid		0.31 ℓ	5/8 pt	1/2 pt
Power steering fluid		1.0 ℓ	2-1/8 qt	1-3/4 qt
Brake fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.6 ℓ	4-7/8 qt	4 qt
Air conditioning system refrigerant		0.83 ± 0.03 kg	1.83 ± 0.07 lb	1.83 ± 0.07 lb
Air conditioning system oil		230 mℓ	7.8 fl oz	8.1 fl oz