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NISSAN TITAN

MODEL A60 SERIES

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

A

B

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P

FOREWORD

This manual contains maintenance and repair procedure for the 2014 NISSAN TITAN.

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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Technical Publications Department



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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.*

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: _____

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

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

DATE: _____ YOUR NAME: _____ POSITION: _____

DEALER: _____ DEALER NO.: _____ ADDRESS: _____

CITY: _____ STATE/PROV./COUNTRY: _____ ZIP/POSTAL CODE: _____

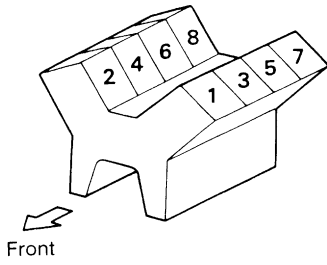
QUICK REFERENCE CHART: TITAN

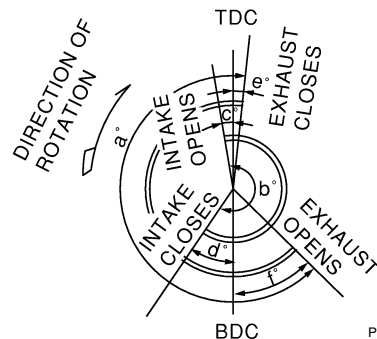
Engine Tune-up Data

INFOID:0000000010178340

GENERAL SPECIFICATIONS

Cylinder arrangement		V-8
Displacement $\text{cm}^3(\text{in}^3)$		5,552 (338.80)
Bore and stroke mm (in)		98 x 92 (3.86 x 3.62)
Valve arrangement		DOHC
Firing order		1-8-7-3-6-5-4-2
Number of piston rings	Compression	2
	Oil	1
Number of main bearings		5
Compression ratio		9.8:1
Compression pressure $\text{kPa (kg/cm}^2, \text{psi)/rpm}$	Standard	1,520 (15.5, 220)/200
	Minimum	1,324 (13.5, 192)/200
	Differential limit between cylinders	98 (1.0, 14)/200

Cylinder number	 SEM957C
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Valve timing	 PBIC0187E
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Unit: degree

a	b	c	d	e	f
244°	232°	-8°	60°	10°	54°

DRIVE BELTS

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

QUICK REFERENCE CHART: TITAN

2014

Unit: mm (in)

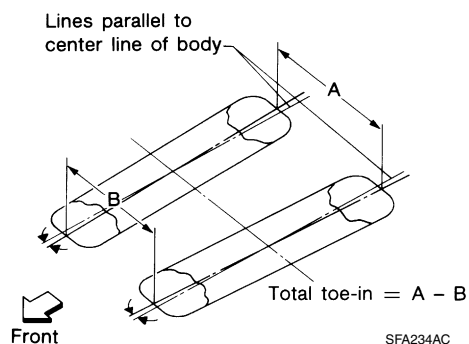
Make	NGK	
Model	Standard model	FFV model
Standard type*	DILFR5A-11	DILFR5A-11D
Gap (Nominal)	1.1 (0.043)	1.1 (0.043)

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

Front Wheel Alignment (Unladen*1)

INFOID:0000000010178339

Drive type		2WD	4WD
Camber *6 Degree minute (decimal degree)	Minimum	-0° 57' (-0.95°)	-0° 27' (-0.45°)
	Nominal	-0° 12' (-0.20°)	0° 18' (0.30°)
	Maximum	0° 33' (0.55°)	1° 03' (1.05°)
	Cross camber	0° 45' (0.75°) or less	
Caster *6 Degree minute (decimal degree)	Minimum	2° 15' (2.25°)	1° 27' (1.45°)
	Nominal	3° 0' (3.00°)	2° 12' (2.20°)
	Maximum	3° 45' (3.75°)	2° 57' (2.95°)
	Cross caster	0° 45' (0.75°) or less	
Kingpin inclination (reference only) Degree minute (decimal degree)		13° 33' (13.55°)	13° 0' (13.00°)



Total toe-in	Total toe-in Distance (A – B)	Minimum	In 0.5 mm (In 0.02 in)	
		Nominal	In 2.5 mm (In 0.10 in)	
		Maximum	In 4.5 mm (In 0.17 in)	
	Total toe-in Angle Degree minute (decimal degree)	Minimum	In 0° 0′ 36″ (In 0.01°)	
		Nominal	In 0° 10′ 12″ (In 0.17°)	
		Maximum	In 0° 19′ 48″ (In 0.33°)	
Wheel turning angle (full turn)	Inside Degree minute (decimal degree)		34° 30′ – 38° 30′ *2 (34.50° – 38.50°)	34° 56′ – 38° 56′ *4 (34.93° – 38.93°)
	Outside Degree minute (decimal degree)		30° 58′ – 34° 58′ *3 (30.97° – 34.97°)	31° 01′ – 35° 01′ *5 (31.02° – 35.02°)

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

*2: Target value 37° 30' (37.50°)

*3: Target value 33° 58' (33.97°)

*4: Target value 37° 56' (37.93°)

*5: Target value 34° 01' (34.02°)

*6: Some vehicles may be equipped with straight (non-adjustable) lower link bolts and washers. In order to adjust camber and caster on these vehicles, first replace the lower link bolts and washers with adjustable (cam) bolts and washers.

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General Specification (Rear)

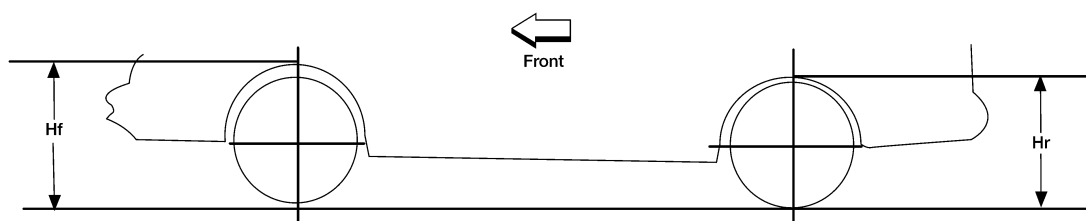
INFOID:000000010178338

Suspension type	Rigid axle with semi-elliptic leaf spring
Shock absorber type	Double-acting hydraulic

Wheelarch Height (Unladen*1)

INFOID:000000010178337

Unit: mm (in)



LEIA0085E

Drive type		2WD				4WD*2				4WD*3			
Wheel base		Short		Long		Short		Long		Short		Long	
Body		King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab
Front wheel arch height (Hf)	P265/70R18	912 (35.91)	914 (35.98)	912 (35.91)	914 (35.98)	949 (37.36)	951 (37.44)	949 (37.36)	951 (37.44)	949 (37.36)	951 (37.44)	949 (37.36)	951 (37.44)
	P275/70R18	922 (36.30)	925 (36.42)	922 (36.30)	925 (36.42)	960 (37.80)	962 (37.87)	959 (37.76)	962 (37.87)	960 (37.80)	962 (37.87)	959 (37.76)	962 (37.87)
	P275/60R20	917 (36.10)	919 (36.18)	917 (36.10)	920 (36.22)	955 (37.60)	957 (37.68)	954 (37.56)	957 (37.68)	955 (37.60)	957 (37.68)	954 (37.56)	957 (37.68)
Rear wheel arch height (Hr)	P265/70R18	952 (37.48)	954 (37.56)	950 (37.40)	951 (37.44)	991 (39.02)	994 (39.13)	989 (38.94)	991 (39.02)	991 (39.02)	993 (39.09)	989 (38.94)	991 (39.02)
	P275/70R18	962 (37.87)	965 (37.99)	960 (37.80)	962 (37.87)	1002 (39.45)	1004 (39.53)	1000 (39.37)	1002 (39.45)	1001 (39.41)	1004 (39.53)	1000 (39.37)	1002 (39.45)
	P275/60R20	957 (37.68)	959 (37.76)	955 (37.60)	956 (37.64)	996 (39.21)	999 (39.33)	995 (39.17)	996 (39.21)	996 (39.21)	998 (39.29)	995 (39.17)	996 (39.21)

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

*2: Without tow package.

*3: With tow package.

Brake Specification

INFOID:000000010178333

Unit: mm (in)

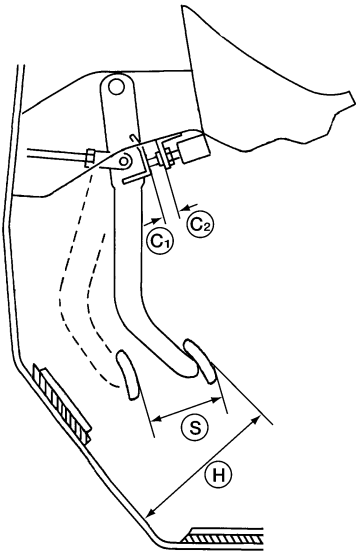
Front brake	Rotor outer diameter × thickness	350 × 30 (13.78 × 1.18)
	Pad Length × width × thickness	152 × 56.5 × 12.0 (5.98 × 2.22 × 0.47)
	Cylinder bore diameter (each)	2 × 50.8 (2.00)
Rear brake	Rotor outer diameter × thickness	320 × 14 (12.6 × 0.55)
	Pad Length × width × thickness	114 × 36.5 × 12.0 (4.49 × 1.44 × 0.47)
	Cylinder bore diameter	48 (1.89)
Control valve	Valve model	Electric brake force distribution
Brake booster	Booster model	9/10 inch active booster

Brake Pedal

INFOID:0000000010178334

STANDARD PEDAL

Unit: mm (in)



AWFIA0557ZZ

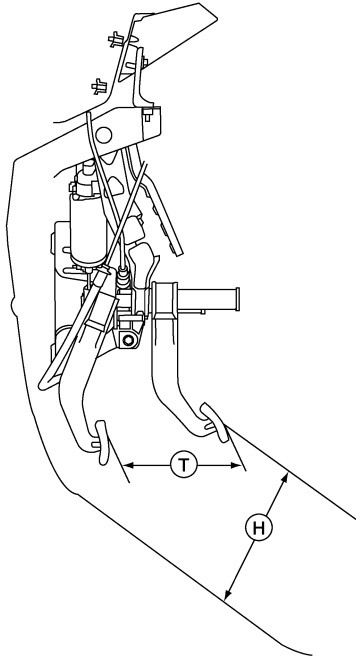
Free height (H)	182.3 +10/-0 (7.18 +0.39/-0)
Pedal full stroke (S)	152.3 (6.00)
Clearance between brake pedal bracket and the threaded end of stop lamp switch (C1) and ASCD cancel switch [if equipped] (C2)	0.74 – 1.96 (0.03 – 0.08)

ADJUSTABLE PEDAL

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Unit: mm (in)



ALFIA0149ZZ

Pedal free height (H) with pedal in forward most position	182.3 +10/-0 (7.18 +0.39/-0)
Pedal full stroke (T)	153.3 (6.04)
Stop lamp switch and ASCD cancel switch threaded end to brake pedal bracket gap	0.74 - 1.96 (0.03 - 0.08)

CAUTION:

When equipped with adjustable pedal, the pedal must be in the forward most position (closest to the floor) for pedal height adjustment.

Front Disc Brake

INFOID:0000000010178335

Unit: mm (in)

Brake pad	Standard thickness (new)	12.0 (0.47)
	Minimum thickness	1.0 (0.04)
Disc rotor	Standard thickness (new)	30.0 (1.18)
	Minimum thickness	28.5 (1.12)
	Maximum uneven wear (measured at 8 positions)	0.015 (0.001)
	Runout limit (with it attached to the vehicle)	0.03 (0.001)

Rear Disc Brake

INFOID:0000000010178336

Unit: mm (in)

Brake pad	Standard thickness (new)	12.0 (0.47)
	Minimum thickness	1.0 (0.04)
Disc rotor	Standard thickness (new)	14.0 (0.55)
	Minimum Thickness	12.5 (0.47)
	Maximum uneven wear (measured at 8 positions)	0.015 (0.001)
	Runout limit (with it attached to the vehicle)	0.05 (0.002)

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FOR NORTH AMERICA : Fluids and Lubricants

INFOID:0000000010178327

Description		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		105.8 ℓ	28 gal	23-1/4 gal
Engine oil Drain and refill	With oil filter change	6.5 ℓ	6-7/8 qt	5-3/4 qt
	Without oil filter change	6.2 ℓ	6-1/2 qt	5-1/2 qt
Dry engine (engine overhaul)		7.6 ℓ	8 qt	6-3/4 qt
Cooling system	With reservoir at MAX level	12.2 ℓ	12-7/8 qt	10-3/4 qt
Automatic transmission fluid (ATF)		10.6 ℓ	11-1/4 qt	9-3/8 qt
Rear differential gear oil		2.0 ℓ	4-1/4 pt	3-1/2 pt
Transfer fluid		2.0 ℓ	2-1/8 qt	1-3/4 qt
Front differential gear oil		1.6 ℓ	3-3/8 pt	2-7/8 pt
Power steering fluid (PSF)		1.0 ℓ	1-1/8 qt	7/8 qt
Brake fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.5 ℓ	4-3/4 qt	4 qt
Air conditioning system refrigerant		0.70 ± 0.05 kg	1.54 ± 0.11 lb	1.54 ± 0.11 lb
Air conditioning system oil		200 m ℓ	6.8 fl oz	7.0 fl oz

FOR MEXICO : Fluids and Lubricants

INFOID:0000000010178330

Description		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		105.8 ℓ	28 gal	23-1/4 gal
Engine oil Drain and refill	With oil filter change	6.5 ℓ	6-7/8 qt	5-3/4 qt
	Without oil filter change	6.2 ℓ	6-1/2 qt	5-1/2 qt
Dry engine (engine overhaul)		7.6 ℓ	8 qt	6-3/4 qt
Cooling system	With reservoir at MAX level	12.2 ℓ	12-7/8 qt	10-3/4 qt
Automatic transmission fluid (ATF)		10.6 ℓ	11-1/4 qt	9-3/8 qt
Rear differential gear oil		2.0 ℓ	4-1/4 pt	3-1/2 pt
Transfer fluid		2.0 ℓ	2-1/8 qt	1-3/4 qt
Front differential gear oil		1.6 ℓ	3-3/8 pt	2-7/8 pt
Power steering fluid (PSF)		1.0 ℓ	1-1/8 qt	7/8 qt
Brake fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.5 ℓ	4-3/4 qt	4 qt
Air conditioning system refrigerant		0.70 ± 0.05 kg	1.54 ± 0.11 lb	1.54 ± 0.11 lb
Air conditioning system oil		200 m ℓ	6.8 fl oz	7.0 fl oz