MAINTENANCE

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PRECAUTIONS

Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER" used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.

Information necessary to service the system safely is included in the **RS section** of this Service Manual. **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance should be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the RS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral cable and wiring harnesses (except "SEAT BELT PRE-TENSIONER") covered with yellow insulation either just before the harness connectors or for the complete harness are related to the SRS.

PREPARATION

Special Service Tool

Special Service Tool

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

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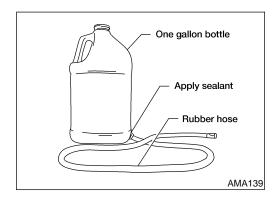
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·			GI
Tool number (Kent-Moore No.) Tool name	Description		МА
KV10115801 (J38956) Oil filter cap wrench		Removing oil filter a: 64.3 mm (2.531 in)	EM
	NT375		LC

Commercial Service Tool

Tool name (Kent-Moore No.)	Description	FE
Belt tension gauge (BT3373-F)	Measuring drive belt tension	AT
	A CONTRACT OF A	AX
	AMA126	SU

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- RS



Preparation for Changing Engine Coolant

Prepare an empty one gallon bottle, such as used for windshield washer fluid. Obtain a 1371 mm (54 in) length of hose with the same inner diameter as the coolant reservoir hose. Modify a one gallon bottle by making a hole at the bottom of the bottle slightly smaller than the hose outer diameter that will be covered by fluid when filled.

- Insert the hose in the bottom of the bottle.
- Seal the hose to the bottle so it will not leak.

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General maintenance includes those items which should be checked during the normal day-to-day operation of the vehicle. They are essential if the vehicle is to continue operating properly. The owners can perform checks and inspections themselves or they can have their NISSAN dealers do them.

OUTSIDE THE VEHICLE

The maintenance items listed here should be performed from time to time, unless otherwise specified.

Item		Reference page
Tires	Check the pressure with a gauge periodically when at a service station, including the spare, and adjust to the specified pressure if necessary. Check carefully for damage, cuts or excessive wear.	_
Wheel nuts	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	_
Tire rotation	Tires should be rotated every 12,000 km (7,500 miles).	MA-25
Wheel alignment and balance	If the vehicle pulls to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment. If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed.	MA-25, SU-6 , "Front Wheel Alignment"
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	_
Doors and engine hood	Check that all doors and the engine hood operate smoothly as well as the trunk lid and back hatch. Also make sure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check lubrication frequently.	MA-28

INSIDE THE VEHICLE

The maintenance items listed here should be checked on a regular basis, such as when performing periodic maintenance, cleaning the vehicle, etc.

Item		Reference page
Lamps	Make sure that the headlamps, stop lamps, tail lamps, turn signal lamps, and other lamps are all operating properly and installed securely. Also check headlamp aim.	_
Warning lamps and buzzers/chimes	Make sure that all warning lamps and buzzers/chimes are operating properly.	_
Windshield wiper and washer	Check that the wipers and washer operate properly and that the wipers do not streak.	_
Windshield defroster	Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioning.	_
Steering wheel	Check that it has the specified play. Be sure to check for changes in the steering condition, such as excessive play, hard steering or strange noises. Free play: Less than 35 mm (1.38 in)	_
Seats	Check seat position controls such as seat adjusters, seat back recliner, etc. to make sure they operate smoothly and that all latches lock securely in every position. Check that the head restraints move up and down smoothly and that the locks (if equipped) hold securely in all latched positions. Check that the latches lock securely for folding-down rear seat backs.	_
Seat belts	Check that all parts of the seat belt system (e.g. buckles, anchors, adjusters and retractors) operate properly and smoothly and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	MA-28, RS-9 "Seat Belt Inspection"
Brakes	Check that the brakes do not pull the vehicle to one side when applied.	—
Accelerator pedal	Check the pedal for smooth operation and make sure the pedal does not catch or require uneven effort. Keep the floor mats away from the pedal.	FE-3, "Accelerator control system"

MA-4

GENERAL MAINTENANCE

Item		Reference page	
Brake pedal and booster	Check the pedal for smooth operation and make sure it has the proper dis- tance under it when depressed fully. Check the brake booster function. Be sure to keep floor mats away from the pedal.	BR-13 , "Brake Pedal and Bracket" and BR-18 , "Brake Booster"	GI
Parking brake	Check that the lever has the proper travel and make sure that the vehicle is held securely on a fairly steep hill when only the parking brake is applied.	BR-29, "Parking Brake Control"	MA
Automatic transaxle "Park" mechanism	Check that the brake pedal must be depressed for the selector lever to be moved from the "P" position. On a fairly steep hill, check that the vehicle is held securely with the selector lever in the "P" position without applying any	_	EM
	brakes.		LC

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UNDER THE HOOD AND VEHICLE The maintenance items listed here should be checked periodically (e.g. each time you check the engine oil or refuel).

Item		Reference page
Windshield washer fluid	Check that there is adequate fluid in the tank.	_
Engine coolant level	Check the coolant level when the engine is cold.	MA-14
Radiator and hoses	Check the front of the radiator and clean off any dirt, insects, leaves, etc., that may have accumulated. Make sure the hoses have no cracks, deformation, deterioration or loose connections.	—
Brake fluid level	Make sure that the brake fluid level is between the "MAX" and "MIN" lines on the reservoir.	MA-25
Battery	Check the fluid level in each cell. It should be between the "MAX" and "MIN" lines.	—
Engine drive belts	Make sure that no belt is frayed, worn, cracked or oily.	MA-13
Engine oil level	Check the level on the dipstick after parking the vehicle on a level spot with the engine off for at least 30 seconds.	MA-19
Power steering fluid level and lines	Check the level on the dipstick with the engine off. Check the lines for improper attachment, leaks, cracks, etc.	MA-27
Automatic transaxle fluid level	Check the level on the dipstick after putting the selector lever in "P" with the engine idling.	MA-24
Exhaust system	Make sure there are no loose supports, cracks or holes. If the sound of the exhaust seems unusual or there is a smell of exhaust fumes, immediately locate the trouble and correct it.	MA-24
Underbody	The underbody is frequently exposed to corrosive substances such as those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt can easily accumulate.	_
Fluid leaks	Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle has been parked for a while. Water dripping from the air conditioner after use is normal. If you should notice any leaks or gasoline fumes are evident, check for the cause and correct it immediately.	_

Two different maintenance schedules are provided, and should be used, depending upon the conditions in which the vehicle is usually operated. After 60,000 miles (96,000 km) or 48 months, continue the periodic maintenance at the same mileage/time intervals.

Sahadula 1	 Follow Periodic Maintenance Schedule 1 if owner's driving habits frequently includes one or more of the following driving conditions: Repeated short trips of less than 5 miles (8 km). Repeated short trips of less than 10 miles (16 km) with outside temperatures remaining below freezing. Operating in bet weather in step and go "web hour" traffic 	Emission Control Sys- tem Maintenance	MA-7
Schedule 1	 Operating in hot weather in stop-and-go "rush hour" traffic. Extensive idling and/or low speed driving for long distances, such as police, taxi or door-to-door delivery use. Driving in dusty conditions. Driving on rough, muddy, or salted roads. Towing a trailer, using a camper or a car-top carrier. 	Chassis and Body Maintenance	MA-8
	Follow Periodic Maintenance Schedule 2 if none of the driving conditions shown in Schedule 1 apply to owner's driving habits.	Emission Control Sys- tem Maintenance	MA-9
Schedule 2		Chassis and Body Maintenance	MA-10

PERIODIC MAINTENANCE

Schedule 1

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lis	SION C		TRC	L S	SYS	TE	MN	/Al		NCE	I	Φ	NDMA000
Reference	Section - Page or - Content Title	MA-13	MA-19	MA-23	MA-18	MA-18	MA-14	MA-19	MA-20	MA-21	EM-17 Timing Belt	er to maintain the	
	60 (96) 48	<u>*</u>	R	<u>*</u>	<u>*</u>			2	۲			in orde	
	56.25 (90) 45							2	۲			лалсе	
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MAINTENANCE INTERVAL	33.75 (54) 27						km) or	ĸ	Ľ	Replace every 105,000 miles (169,000 km)	Replace every 105,000 miles (169,000 km)	an evé nwo ər	
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	3.75 (6) 3							~	۲			ect ev et can mende er mair	
	Miles × 1,000 (km × 1,000) Months	NOTE (1)	NOTE (2)			NOTE (3)						48 months, ins ans, more freque the vehicle sper ith "**" are recorr call liability. Oth	
MAINTENANCE OPERATION	Perform at number of miles, kilo- meters or months, whichever comes first.	Drive belts	Air cleaner filter	EVAP vapor lines	Fuel lines	Fuel filter*	Engine coolant	Engine oil	Engine oil filter (Use part No. 15208-7B000, 15208-31U00, 15208-9E000 or equivalent.)	Spark plugs (double platinum- tipped type)	Timing belt	 NOTE: (1) After 60,000 miles (96,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months. (2) If operating mainly in dust conditions, more frequent maintenance may be required. (3) When the filter becomes clogged, the vehicle speed cannot be increased as the driver wishes. In such an event, replace the filter. ★ Maintenance items and intervals with "**" are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manufacturer recall liability. Other maintenance items and intervals are required. 	

MA-7

MAINTENANCE OPERATION							Z	MAINTENANCE INTERVAL	NANC	E INTE	RVAL						Reference
Perform at number of miles, kilo- meters or months, whichever comes first.	lo- Miles x 1,000 (km x 1,000) Months	3.75 (6) 3	7.5 (12) 6	11.25 (18) 9	15 (24) 12	18.75 (30) 15	22.5 (36) 18	26.25 (42) 21	30 (48) 24	33.75 (54) 27	37.5 41.25 (60) (66) 30 33	45 4 (72) 36	48.75 (78) 39	52.5 (84) 42	56.25 (90) 45	60 (96) 48	Section - Page or - Content Title
Brake lines & cables					-				-			-				-	MA-26
Brake pads, rotors, drums & lin- ings	÷		_		_		_		_		_	_		_		_	MA-26, 26
Automatic transaxle fluid	NOTE (1)				_				_			_				_	MA-24
Cabin air filter	NOTE (5)				R				R			R				R	HA-139 Cabin air filter
Steering gear, linkage, axle & sus- pension parts	sus- NOTE (4)		-		_		_		_		_	_		_		_	MA-27 NOTE (4)
Tire rotation	NOTE (2)																MA-4, 25
Drive shaft boots			_		_		_		_		_	_		_		_	AX-13 Drive Shaft
Exhaust system			_		_		_		_		_	_		_		_	MA-24
Supplemental air bag system	NOTE (3)																RS-3 Maintenance Items
ASCD vacuum hoses					_				_			_				_	EL-233 ASCD Actuator Check
NOTE.																	

PERIODIC MAINTENANCE

NOTE:

(1) If towing a trailer, using a camper or a car-top carrier, or driving on rough or muddy roads, change (not just inspect) oil at every 30,000 miles (48,000 km) or 24 months.

Refer to "Tire Rotation" under the "GENERAL MAINTENANCE" heading earlier in this section.
 Inspect the air bag system 10 years after the date of manufacture noted on the FMVSS certification label.
 Refer to "Front Suspension Parts", *SU-5*, "Rear Suspension Parts", *SU-16*, "Front Axle Parts", *AX-3* and "Rear Axle Parts", *AX-18*.
 If operating mainly in dusty conditions more frequent maintenance may be required.

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Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. L = Lubricate.

PERIODIC MAINTENANCE

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Reference Section	- Page or - Content Title	MA-13	MA-19	MA-23	MA-18	MA-18	MA-14	MA-19	MA-20	MA-21	EM-17 Timing Belt	in order to maintain t	
	60 (96) 48	<u>*</u>	R	<u>*</u>	<u>*</u>			۲	Ľ			intenance	
	52.5 (84) 42						onths.*	~	۲			n such ma	
AL	45 (72) 36						ו) or 36 m	۲	Ľ	(169,000 km)	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	ce the filte	
MAINTENANCE INTERVAL	37.5 (60) 30						30,000 miles (48,000 km) or 36 months	۲	ĸ	105,000 miles (16	Replace every 105,000 miles (169,000 km)	miles (24,000 km) or 12 months. eased as the driver wishes. In such an event, replace the filter. AN for reliable vehicle operation. The owner need not perform ems and intervals are required.	
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MAII	22.5 (36) 18						every 30,(~	۲	Replace every	eplace eve	r 12 montl vishes. In le operatic e required	
	15 (24) 12						Replace every	~	۲	Å	Å	000 km) o he driver v able vehic itervals ar	
	7.5 (12) 6							ĸ	Ľ			miles (24,000 km) or 12 months. aased as the driver wishes. In su AN for reliable vehicle operation. ams and intervals are required.	
	00											y 15,000 ot be incre by NISS, enance ite	
	Miles × 1,000 (km × 1,000) Months	NOTE (1)				NOTE (2)						inspect ever speed canned commended Other maint	
	s or									/pe)		8 months, e vehicle "*" are re III liability.	
MAINTENANCE OPERATION	Perform at number of miles, kilometers or months, whichever comes first.	Drive belts	Air cleaner filter	EVAP vapor lines	Fuel lines	Fuel filter*	Engine coolant	Engine oil	Engine oil filter (Use part No. 15208- 7B000, 15208-31U00, 15208-9E000 or equivalent.)	Spark plugs (double platinum-tipped type)	Timing belt	 NOTE: (1) After 60,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months. (2) When the filter becomes dogged, the vehicle speed cannot be increased as the driver wishes. In such an event, replace the filter. A Maintenance items and intervals with ^{mm} are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manufacturer recall liability. Other maintenance items and intervals are required. 	

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Schedule 2

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			Abb	reviations:	R = Repla	ace. I = I	nspect. Co	rrect or rep	olace if ne	Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. L = Lubricate.
MAINTENANCE OPERATION				MAI	NTENANC	MAINTENANCE INTERVAL	/AL			Reference Section
Perform at number of miles, kilometers or months, whichever comes first.	Miles × 1,000 (km × 1,000) Months	7.5 (12) 6	15 (24) 12	22.5 (36) 18	30 (48) 24	37.5 (60) 30	45 (72) 36	52.5 (84) 42	60 (96) 48	- Page or - Content Title
Brake lines & cables			-		-		-		-	MA-26
Brake pads, rotors, drums & linings			-		-		_		-	MA-26, 26
Automatic transaxle fluid			_		_		_		_	MA-24
Cabin air filter	NOTE (4)		ĸ		ĸ		ĸ		۲	HA-139 Cabin air filter
Steering gear, linkage, axle & suspension parts	NOTE (3)				_				_	MA-27 NOTE (3)
Tire rotation	NOTE (1)									MA-4
Drive shaft boots			_		_		_		_	AX-13 Drive Shaft
Exhaust system					_				_	MA-24
Supplemental air bag system	NOTE (2)									RS-3 Maintenance Item
ASCD vacuum hoses			_		_		_		_	EL-233 ASCD Actuator Check
 NOTE: (1) Refer to "Tire Rotation" under the "GENERAL MAINTENANCE" heading earlier in this section. (2) Inspect the air bag system 10 years after the date of manufacture noted on the FMVSS certification label. (3) Refer to "Front Suspension Parts", <i>SU-5</i>, "Rear Suspension Parts", <i>SU-16</i>, "Front Axle Parts", <i>AX-3</i>, and "Rear Axle Parts", <i>AX-18</i>. (4) If operating mainly in dusty conditions more frequent maintenance may be required. 	RAL MAINTENANCE" he the date of manufacture "Rear Suspension Parts" re frequent maintenance	ading earl noted on 1 , SU-16 , "I may be re	ier in this s the FMVSS Front Axle squired.	section. S certificati Parts", AX	on label. (-3 , and "R	ear Axle F	arts", AX-	8		

CHASSIS AND BODY MAINTENANCE

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NDMA0005

RECOMMENDED FLUIDS AND LUBRICANTS

Fluids and Lubricants

Fluids and Lubricants

		гiu	ius anu		ants	NDMA0005S01	
			Сара	city (Approx	imate)		GI
			US mea- sure	Imp mea- sure	Liter	Recommended Fluids/Lubricants	M
	With o	il filter	4 qt	3-3/8 qt	3.8	API Certification Mark*1	
Engine oil drain and refill	Without	oil filter	3-7/8 qt	3-1/8 qt	3.6	API grade SG/SH, energy Con- serving I & II or API grade SJ,	EN
	Dry engine (ha	0	4-1/2 qt	3-3/4 qt	4.3	Energy Conserving*1 • ILSAC grade GF-I & GF-II*1	
Cooling system (With rese	ervoir)		11-1/4 qt	9-3/8 qt	10.6	50% Genuine NISSAN Anti-freeze Coolant or equivalent 50% demineralized water or distilled water	· LC EC
Automatic transaxle fluid			10 qt	8-1/4 qt	9.4	NISSAN MATIC "D" (Continental U.S. and Alaska) or Canada NISSAN Automatic Transmission Fluid*3	FE
Power steering fluid			1-1/8 qt	1 qt	1.1	Type F Automatic Transmission Fluid	At
Brake fluid			_	_	_	Genuine NISSAN Brake Fluid*2 or equivalent DOT 3 (US FMVSS No. 116)	AX
Multi-purpose grease			—	—	—	NLGI No. 2 (Lithium soap base)	
	With rear A/C	Lubricant	11.0 oz	11.5 oz	325 ml	NISSAN A/C System Lubricant PAG Type F or equivalent*4	SL
Air conditioning system		Refrigerant	3.376 lb	—	1.531 kg	R-134a	BF
Air conditioning system	Front A/C only	Lubricant	7.0 oz	7.3 oz	207 ml	NISSAN A/C System Lubricant PAG Type F or equivalent*4	· Sī
	Only	Refrigerant	2.0 lb		0.907 kg	R-134a	91

*1: For further details, see "SAE Viscosity Number".

 *2: Available in mainland U.S.A. through your NISSAN dealer.
 *3: DEXRON[™] III/MERCON[™] or equivalent may also be used. Outside the continental United States and Alaska contact a NISSAN dealership for more information regarding suitable fluids, including recommended brand(s) of DEXRON[™] III/MERCON[™] Automatic Transmission Fluid.

MA-11

*4: Suniso 5GS is not acceptable for use in this vehicle.

BT

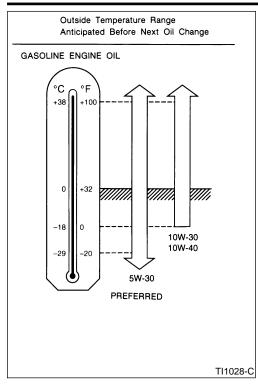
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SAE Viscosity Number



SAE Viscosity Number GASOLINE ENGINE OIL

SAE 5W-30 viscosity oil is preferred for all temperatures. SAE 10W-30 and 10W-40 viscosity oil may be used if the ambient temperature is above –18°C (0°F).

Anti-freeze Coolant Mixture Ratio

NDMA0005S03

The engine cooling system is filled at the factory with a high-quality, year-round, anti-freeze coolant solution. The anti-freeze solution contains rust and corrosion inhibitors. Therefore, additional cooling system additives are not necessary.

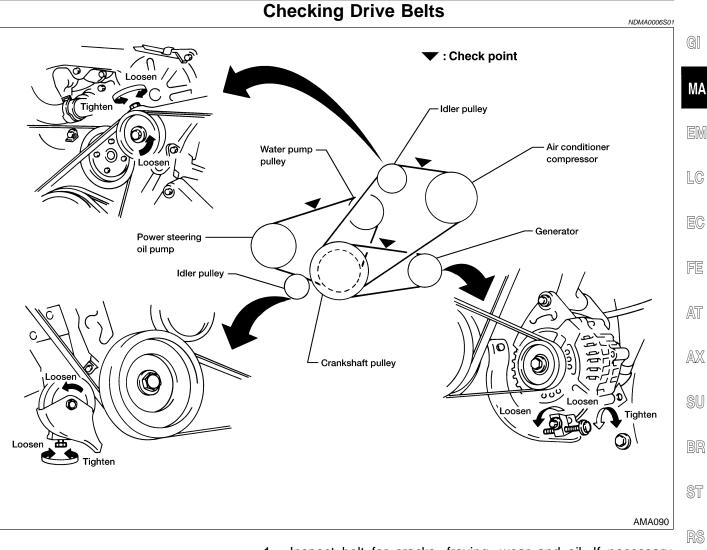
CAUTION:

When adding or replacing coolant, be sure to use only a Genuine Nissan Anti-freeze Coolant or equivalent with the proper mixture ratio.

Outside temper	ature down to	Genuine NISSAN Anit-freeze Cool-	Demineralized water or distilled
°C	°F	ant or equivalent	water
-35	-30	50%	50%

The use of other types of coolant solutions may damage the engine cooling system.

Checking Drive Belts



- 1. Inspect belt for cracks, fraying, wear and oil. If necessary, replace.
- 2. Inspect drive belt deflection or tension at a point on the belt BT midway between pulleys.
- 3. Check belt tension using belt tension gauge (BT3373–F or equivalent).

Inspect drive belt deflection or tension when engine is cold. Adjust if belt deflections exceed the limit or if belt tension is sc not within specifications. Drive belt tension can be checked at other points on the belt.

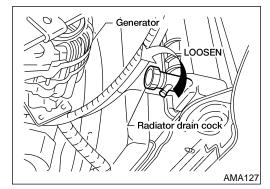
EL

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Belt deflection and tension

	Deflection adjustn	nent	Unit: mm (in)	Tension adjustme	nt*1	Unit :N (kg, lb)
	Used	d belt	New helt	Use	d belt	Now half
	Limit	After adjustment	New belt	Limit	After adjustment	New belt
Generator	12 (0.47)	7.5 - 8.5 (0.295- 0.335)	6.5 - 7.5 (0.256 - 0.295)	225 (23, 51)	554 - 642 (56.5 - 65.5, 124.6 - 144.4)	671 - 759 (68.5 - 77.5, 151.0 - 170.9)
Air conditioner compressor	10 (0.39	5 - 7 (0.20 - 0.28)	4 - 6 (0.16 - 0.24)	196 (20, 44)	495 - 583 (50.5 - 59.5, 111.4 - 131.2)	603 - 691 (61.5 - 70.5, 135.6 - 155.5)
Power steering oil pump	16 (0.63)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)	196 (20, 44)	495 - 583 (50.5 - 59.5, 111.4 - 131.2)	603 - 691 (61.5 - 70.5, 135.6 - 155.5)
Applied pushing force		98 N (10 kg, 22 lb)				

*1 If belt tension gauge cannot be installed at check points shown, check drive belt tension at a different location on the belt.



Changing Engine Coolant

NDMA0006S02

- To avoid the danger of being scalded, never change the coolant when the engine is hot.
- Wrap a thick cloth around radiator cap and carefully remove the cap. At first, turn the cap a quarter of a turn to release built up pressure. Then turn the cap all the way.

NOTE:

Refer to "Preparation for Changing Engine Coolant", MA-3.

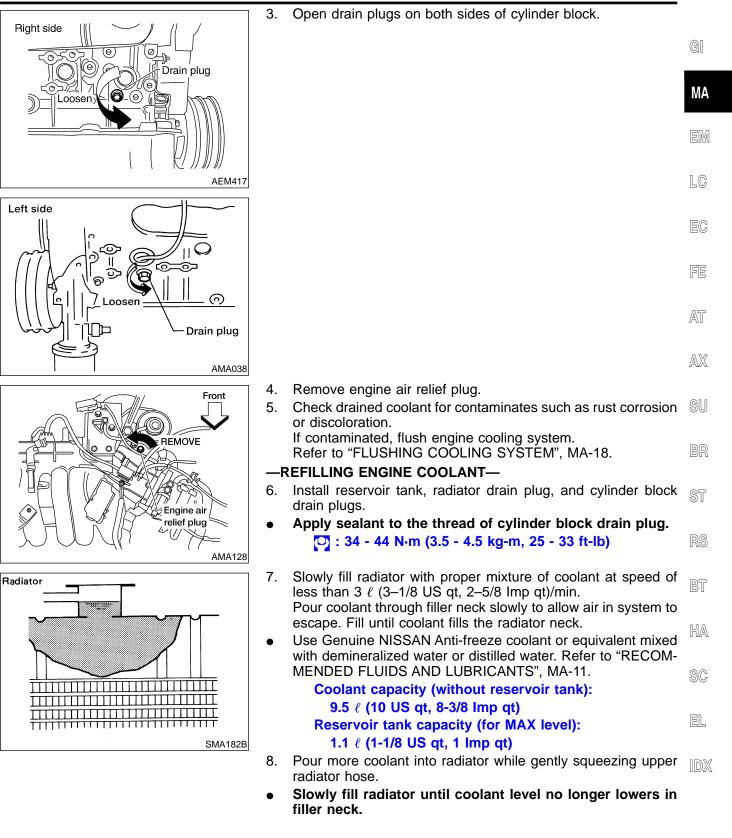
-DRAINING ENGINE COOLANT-

- 1. Open the radiator drain at bottom of radiator and remove radiator filler cap.
- 2. Remove reservoir tank, drain coolant, then clean reservoir tank.

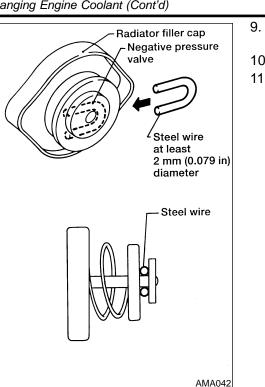
Install it temporarily.

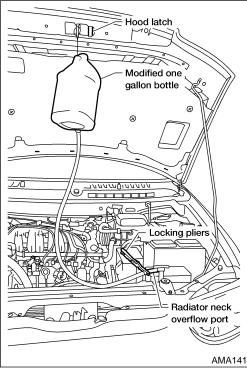
• Be careful not to allow coolant to contact drive belts.

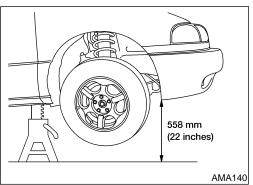
Changing Engine Coolant (Cont'd)



Changing Engine Coolant (Cont'd)







ENGINE MAINTENANCE

- Install a wire under radiator filler cap negative pressure valve to allow flow of air and coolant regardless of pressure.
- 10. Install radiator cap.
- 11. Disconnect the coolant reservoir hose from the radiator neck overflow port.

- 12. Attach the hose from the modified one gallon bottle to the radiator neck overflow port. Refer to "Preparation for Changing Engine Coolant", MA-3.
- 13. Using locking pliers, clamp off the hose from the modified one gallon bottle.
- 14. Fill the modified one gallon bottle with the proper mixture of coolant and hang the bottle from the hood striker assembly.
- 15. Remove the locking pliers from the coolant hose to the modified one gallon bottle and allow the coolant to flow until coolant comes out of the engine air relief hole.
- 16. Using the locking pliers, reclamp the coolant hose from the modified one gallon bottle.
- 17. Install and tighten the engine air relief plug.

Air relief plug:

20-26 N·m (2.0-2.7 kg-m, 14-20 ft-lb)

18. Raise the front of the vehicle so that the bottom of the front fascia is 558 mm (22 inches) from the ground.

CAUTION:

Fix rear tires with tire stopper. Support front garage jack point and put safety stands to front safety stand points.

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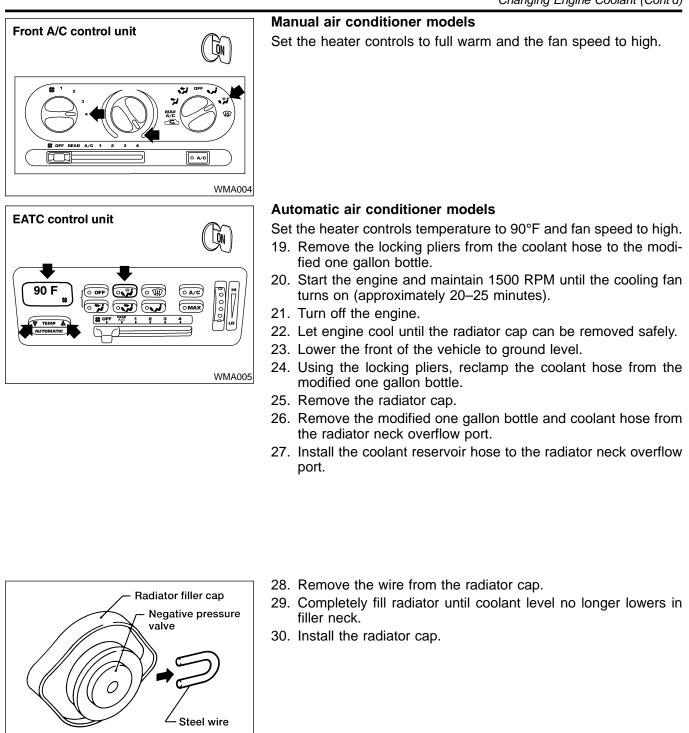
SU

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MAX.

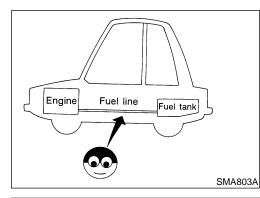
MIN.

- EL
- 31. Fill coolant reservoir bottle to MAX level.
- 32. Reinstall coolant reservoir cap.
- 33. Clean excess coolant from engine block.
- 34. Check cooling system for leaks with engine running.

Flushing Cooling System

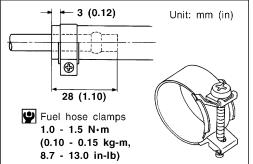
- 1. Fill radiator with water until water spills from the radiator air relief hole then close air relief plug. Fill radiator and reservoir tank with water and reinstall radiator cap.
- 2. Run engine and warm it up sufficiently (until lower radiator hose becomes warm).
- 3. Rev engine 2 or 3 times under no-load.
- 4. Stop engine and wait until it cools down (cool down with a fan to reduce time).
- 5. Drain water.
- 6. Repeat steps 1 through 5 until clear water begins to drain from radiator.

Coolant capacity (without reservoir tank): 9.5 ℓ (10 US qt, 8-3/8 Imp qt) Reservoir tank capacity (for MAX level): 1.1 ℓ (1-1/8 US qt, 1 Imp qt)



Checking Fuel Lines

Inspect fuel lines and tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration. If necessary, repair or replace faulty parts.



FUEL PRES RELEASE FUEL PUMP WILL STOP BY TOUCHING START DURING IDLE. CRANK A FEW TIMES AFTER ENGINE STALL. PEF823K

CAUTION:

MMA104A

Tighten high-pressure rubber hose clamp so that clamp end is 3 mm (0.12 in) from hose end.

Tightening torque specifications are the same for all rubber hose clamps.

Ensure that screw does not contact adjacent parts.

Changing Fuel Filter

NDMA0006S04

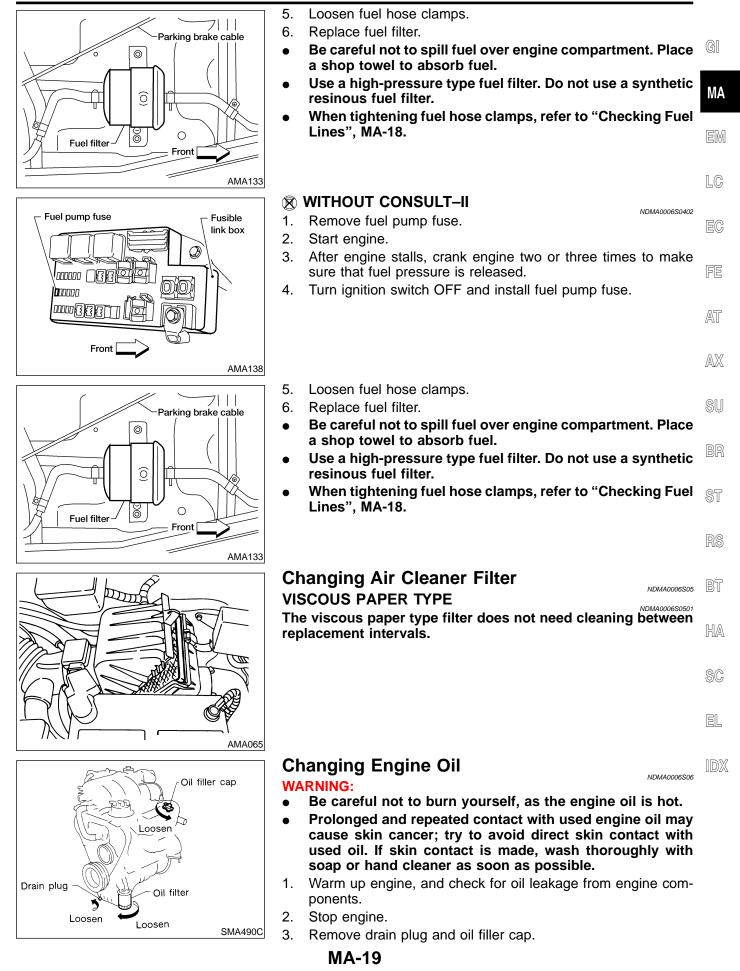
WARNING: Before removing fu

Before removing fuel filter, release fuel pressure from fuel line.

(I) WITH CONSULT-II

NDMA0006S0401

- 1. Start engine.
- Perform "FUEL PRES RELEASE" in "WORK SUPPORT" mode to release fuel pressure to zero.
- 3. After engine stalls, crank engine two or three times to make sure that fuel pressure is released.
- 4. Turn ignition switch OFF.



- 4. Drain oil and refill with new engine oil.
- Oil specification and viscosity
- API Certification Mark
- API grade SG/SH Energy Conserving I & II or API grade SJ, Energy Conserving
- ILSAC grade GF-I & GF-II
- See "RECOMMENDED FLUIDS AND LUBRICANTS," MA-11.

Oil capacity (Approximately) :

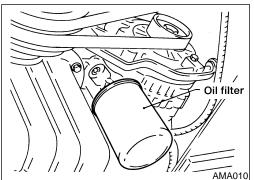
Unit: ℓ (US qt, Imp qt)

Drain and refill	
With oil filter change	3.8 (4, 3-3/8)
Without oil filter change	3.6 (3-7/8, 3-1/8)
Dry engine (engine overhaul)	4.3 (4-1/2, 3-3/4)

CAUTION:

- Be sure to clean drain plug and install with new washer.
 Oil pan drain plug:
 - ☑ : 29 39 N·m (3.0 4.0 kg-m, 22 29 ft-lb)
- The refill capacity depends on the oil temperature and drain time; use these specifications for reference only. Always use the dipstick to determine when the proper amount of oil is in the engine.

- Refill oil to "H" level.
- 5. Warm up engine and check area around drain plug and oil filter for oil leakage.
- 6. Stop engine.
- 7. Check oil level.



Changing Oil Filter

NDMA0006S07

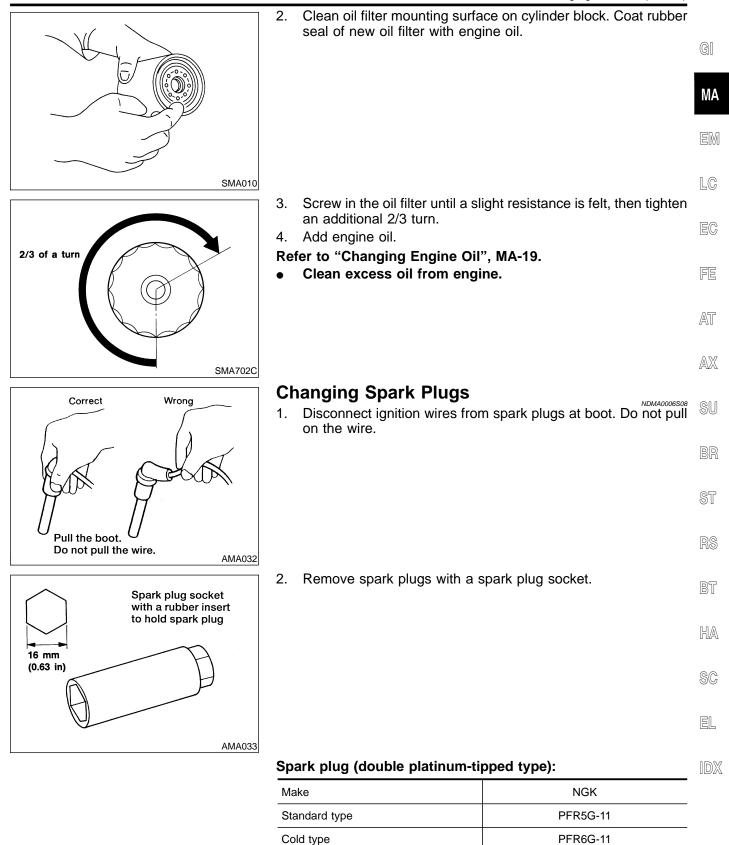
1. Remove oil filter with Tool.

WARNING: Be careful not to burn yourself, as the engine and engine oil

are hot. The filter is a full-flow cartridge type and is provided with a relief valve.

Refer to LC-6, "Oil Filter".

Changing Oil Filter (Cont'd)



Spark plug gap (nominal): 1.1 mm (0.043 in)

Use standard type spark plug for normal condition.

The hot type spark plug is suitable when fouling may occur with the standard type spark plug such as:

PFR4G-11

Hot type

Changing Spark Plugs (Cont'd)

ENGINE MAINTENANCE

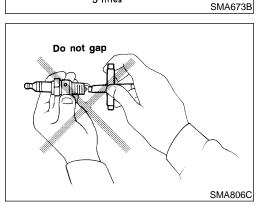
- frequent engine starts
- low ambient temperatures

The cold type spark plug is suitable when spark knock may occur with the standard type spark plug such as:

- extended highway driving
- frequent high engine revolution
- Do not use a wire brush for cleaning.
- If plug tip is covered with carbon, spark plug cleaner may be used.

Cleaner air pressure: Less than 588 kPa (6 kg/cm², 85 psi) Cleaning time: Less than 20 seconds

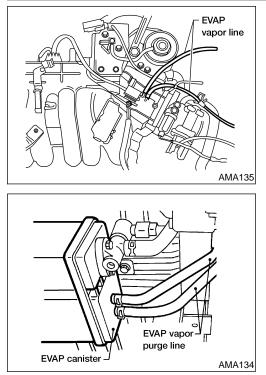
• Checking and adjusting plug gap is not required between change intervals.



-5 lines

- Ignition wire fixing pin
- 3. When installing spark plugs wires to No. 2 and 4 cylinders, securely fit each ignition wire mounting hole onto the ignition wire fixing pin.

Spark plug: 20 - 29 N·m (2.0 - 3.0 kg-m, 14 - 22 ft-lb)



Checking EVAP Vapor Lines

- 1. Visually inspect EVAP vapor lines for improper attachment, cracks, damage, loose connections, chafing or deterioration.
- 2. Inspect vacuum relief valve of fuel tank filler cap for clogging, sticking, etc.

Refer to EC-28, "EVAPORATIVE EMISSION SYSTEM".

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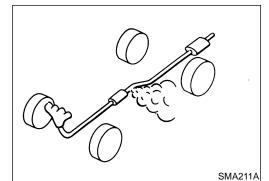
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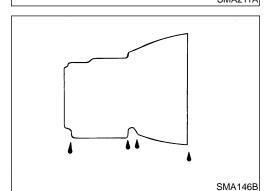
MA-23

Checking Exhaust System



Checking Exhaust System

Check exhaust pipes, muffler and mounting for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration.



Checking A/T Fluid 1. Warm up engine.

NDMA0007S06

- 2. Check for fluid leakage.
- 3. Before driving, fluid level can be checked at fluid temperatures of 21 to 35°C (70 to 95°F) using "COLD" range on dipstick. However, fluid level must be rechecked using hot range.
- a. Park vehicle on level surface and set parking brake.
- b. Start engine and move selector lever through each gear position. Return selector lever to PARK position.
- c. Check fluid level with engine idling.
- d. Remove dipstick and wipe clean with lint-free paper.
- e. Reinsert dipstick as far as it will go into charging pipe.
- f. Remove dipstick and note reading. If reading is at low side, add fluid to the charging pipe.

Do not overfill.

DATA MOI	NITOR	7
MONITORING		-
VHCL/S SE-A/T	XXX km/h	
VHCL/S SE-MTR	XXX km/h	
THRTL POS SEN	xxx v	
FLUID TEMP SE	XXX V	
BATTERY VOLT	XXX V	
		WMA007

- 4. Drive vehicle for approximately 5 minutes in urban areas.
- 5. Determine A/T fluid temperature using CONSULT-II.



- 6. Check fluid condition.
- If fluid is very dark or smells burned, refer to "Trouble Diagnosis—Basic Inspection", *AT-61*, for checking operation of A/T. Flush cooling system after repair of A/T.
- If A/T fluid contains frictional material (clutches, bands, etc.), replace radiator and flush cooler line using cleaning solvent and compressed air after repair of A/T. Refer to *LC-12*, "Radiator".

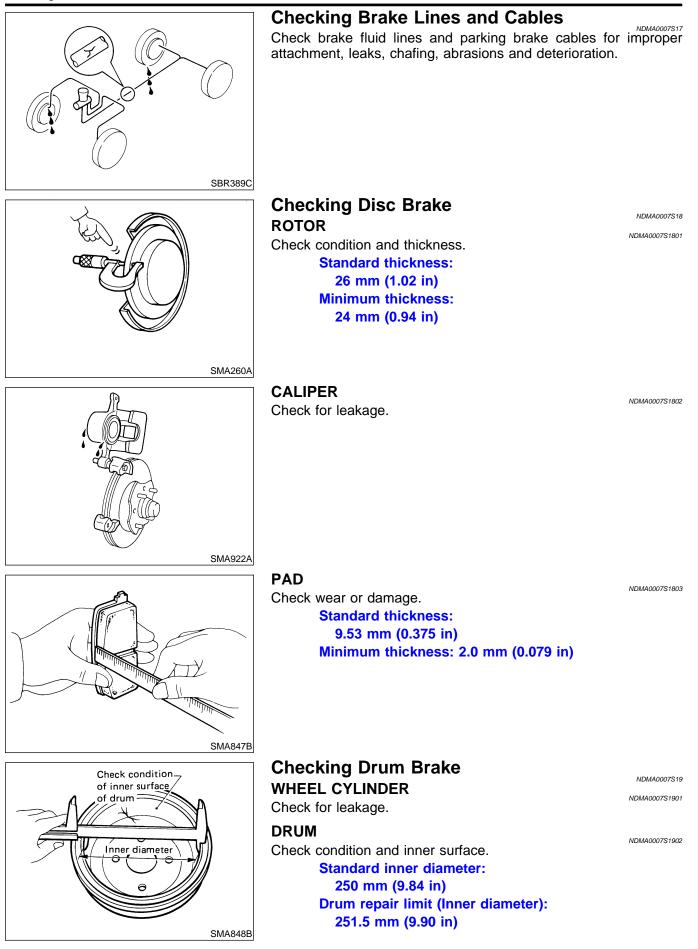
Changing A/T Fluid

	Changing /		
	Changing A/T Fluid	ND1440007007	
	1. Warm up A/T fluid.	NDMA0007S07	GI
	2. Stop engine.		GII
	3. Drain A/T fluid from drain plug and refill with new A/T f Measure amount of fluid drained and refill with equal a of new fluid.		MA
	Fluid grade:		ena
Drain plug SMA294C	NISSAN Matic "D" (Continental U.S. and Alas Canada NISSAN Automatic Transmission Refer to "RECOMMENDED FLUIDS		EM LC
510172340	LUBRICANTS", MA-11. Fluid capacity (With torque converter):		LU
	9.4 ℓ (10 US qt, 8-1/4 Imp qt)		Ra
	Drain plug:		EC
	💟 : 29 - 39 N·m (3.0 - 4.0 kg-m, 22 - 29 ft-lb)		
	4. Run engine at idle speed for 5 minutes.		FE
	5. Check fluid level and condition. Refer to "Checking A/T	Fluid",	
	MA-24. If fluid is still dirty, repeat steps 2 through 5.		AT
			AX
	Balancing Whools		
	Balancing Wheels Adjust wheel balance using the road wheel center.	NDMA0007S14	SU
	Wheel balance (Maximum allowable unbalance)		
	Refer to "WHEEL BALANCE", MA-29.	·	BR
			ST
			01
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			RS
FDONT	Tire Rotation		
	• After rotating the tires, adjust the tire pressure.	NDMA0007S15	BT
	• Retighten the wheel nuts when the vehicle has		
$\mathbf{U} \setminus \mathbf{U}$	driven for 600 miles (1,000 km) (also in cases of a f	lat tire,	HA
$\uparrow \land \uparrow$	etc.). Wheel nuts:		
	[1] : 98 - 118 N·m (10 - 12 kg-m, 72 - 87 ft-lb)		SC
			EL
SGI991			
	Checking Brake Fluid Level and Leaks		IDX
	If fluid level is extremely low, check brake system for leaks	NDMA0007S16	1000
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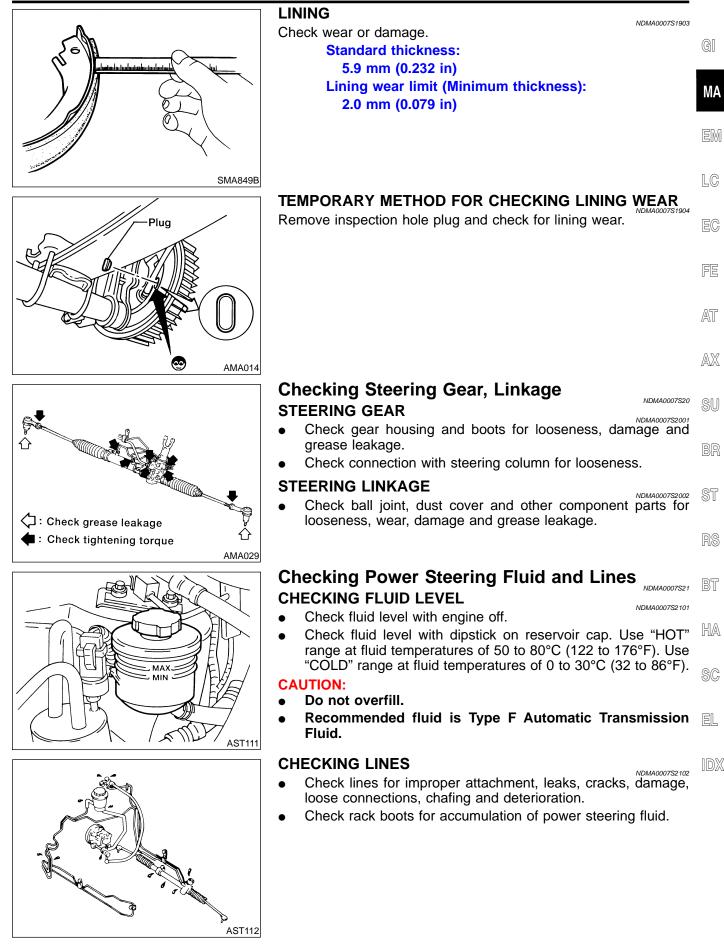
AMA013

Checking Brake Lines and Cables



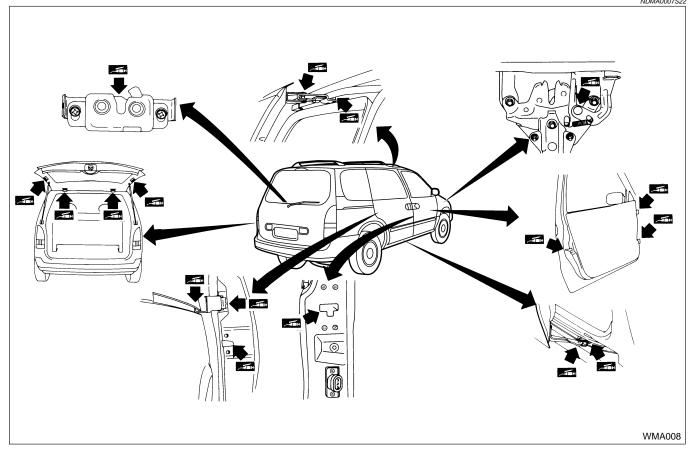
MA-26

Checking Drum Brake (Cont'd)



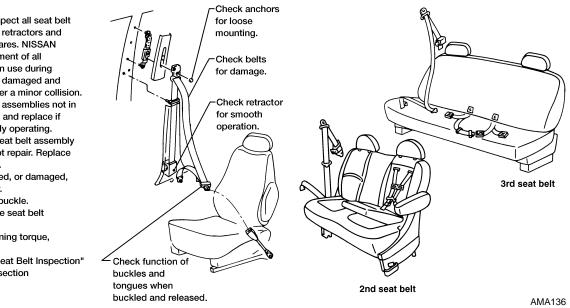
Lubricating Locks, Hinges and Hood Latches

Lubricating Locks, Hinges and Hood Latches



Checking Seat Belts, Buckles, Retractors, Anchors and Adjusters

NDMA0007S23



CAUTION:

- •After any collision, inspect all seat belt assemblies, including retractors and other attached hardwares. NISSAN recommends replacement of all seat belt assemblies in use during a collision, unless not damaged and properly operating after a minor collision. Also inspect seat belt assemblies not in use during a collision, and replace if damaged or improperly operating.
- If any component of seat belt assembly is questionable, do not repair. Replace as seat belt assembly.
- •If webbing is cut, frayed, or damaged, replace belt assembly.
- Never oil tongue and buckle.Use a NISSAN genuine seat belt
- assembly.
- •For anchor bolt tightening torque, refer to RS section.
- •For details, refer to "Seat Belt Inspection" "SEAT BELTS" in RS section

MA-28

SERVICE DATA AND SPECIFICATIONS (SDS)

Engine Maintenance

	-	Maintenance	NDMA0008
DRIVE BELT DEFLECTION)N		_{NDMA0008S01} Unit: mm (in)
	L	Jsed belt	
-	Limit	After adjustment	- New belt
Generator	12 (0.47)	7.5 - 8.5 (0.295 - 0.335)	6.5 - 7.5 (0.256 - 0.295)
Air conditioner compressor	10 (0.39)	5 - 7 (0.20 - 0.28)	4 - 6 (0.16 - 0.24)
Power steering oil pump	16 (0.63)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Applied pushing force		98 N (10 kg, 22 lb)	
DRIVE BELT TENSION			^{NDMA0008503} Unit: N (kg, lb)
	l	Jsed belt	
-	Limit	After adjustment	- New belt
Generator	225 (23, 51)	554 - 642 (56.5 - 65.5, 124.6 - 144.4)	671 - 759 (68.5 - 77.5, 151.0 - 170.9
Air conditioner compressor	196 (20, 44)	495 - 583 (50.5 - 59.5, 111.4 - 131.2)	603 - 691 (61.5 - 70.5, 135.6 - 155.5)
Power steering oil pump	196 (20, 44)	495 - 583 (50.5 - 59.5, 111.4 - 131.2)	603 - 691 (61.5 - 70.5, 135.6 - 155.5)
SPARK PLUG TYPE			NDMA0008S02
Standard type		PFR5G-11	(NGK)
Cold type		PFR6G-11	(NGK)
Hot type		PFR4G-11	(NGK)
		1.1 (0.0	043)
Gap (Nominal) mm (in)			
Gap (Nominal) mm (in)	Chassis	s and Body Maintenar	NDMA0009
	Chassis	-	NDMA0009 NDMA0009501 10 (0.35) (one side)

EL

IDX

NOTES