

SECTION MA

MODIFICATION NOTICE:

- VG30E engine has been added.

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	VG30E	
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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 in a frontal collision. The SRS system composition which is available to NISSAN MODEL D22 is as follows (The composition varies according to the destination and optional equipment.):

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-tensioner, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.

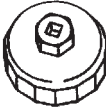
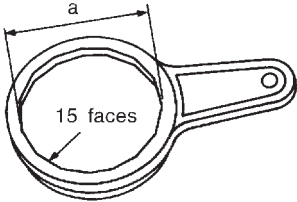
Information necessary to service the system safely is included in the **RS section** of this Service Manual.

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 must 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 Tools

Tool number Tool name	Description
KV10105901 (ST19300001) Oil filter cap wrench	<div>Removing oil filter</div> <div><div>KV10105901</div><div></div><div>15 faces, inner span: 80 mm (3.15 in) (Face to opposite corner)</div></div> <div><div>ST19300001</div><div></div><div>15 faces</div></div> <div>NT706</div>

GI

MA

EM

LC

EC

FE

CL

MT

AT

TF

PD

FA

RA

BR

ST

RS

BT

HA

EL

IDX

GENERAL MAINTENANCE

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 the checks and inspections themselves or they can have their NISSAN dealers do them for a nominal charge.

Item	Reference pages
OUTSIDE THE VEHICLE	
The maintenance items listed here should be performed from time to time, unless otherwise specified.	
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.	—
Windshield wiper blades Check for cracks or wear if they do not wipe properly.	—
Doors and engine hood Check that all doors, the engine hood, the trunk lid and back door operate properly. Also ensure 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 for lubrication frequently.	—
Tire rotation Tires should be rotated every 10,000 km (6,000 miles).	—
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.	
Lights Make sure that the headlights, stop lights, tail lights, turn signal lights, and other lights are all operating properly and installed securely. Also check headlight aim.	—
Warning lights and chimes Make sure that all warning lights and chimes are operating properly.	—
Steering wheel Check for change in the steering conditions, such as excessive free play, hard steering or strange noises.	—
Free play: Less than 35 mm (1.38 in)	
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.	
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-13
Engine oil level Check the level after parking the vehicle on a level spot and turning off the engine.	MA-16
Brake and clutch fluid level Make sure that the brake and clutch fluid level is between the "MAX" and "MIN" lines on the reservoir.	MA-19
Battery Check the fluid level in each cell. It should be between the "MAX" and "MIN" lines.	—

PERIODIC MAINTENANCE

The following tables show the normal maintenance schedule. Depending upon weather and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage, additional or more frequent maintenance may be required.

Periodic maintenance beyond the last period shown on the tables requires similar maintenance.

Engine and Emission Control Maintenance

Abbreviations: I = Inspect and correct or replace as necessary, R = Replace, A = Adjust, C = Clean, D = Drain water and inspect, E = Check and correct the engine coolant mixture ratio.

MAINTENANCE OPERATION	MAINTENANCE INTERVAL										Reference page
	Months	—	6	12	18	24	30	36	42	48	
Perform at the specified months or mileage whichever comes first.	km x 1,000	1	10	20	30	40	50	60	70	80	
	(Miles x 1,000)	(0.6)	(6)	(12)	(18)	(24)	(30)	(36)	(42)	(48)	
I. Engine common item											VG
Drive belts		I*2	I*2			I		I*2		I	MA-11
Engine coolant (Use Nissan Genuine Engine Coolant or equivalent in its quality)	See NOTE (1)					E				R	MA-12
Cooling system				I		I		I		I	MA-13
Fuel lines						I				I	MA-14
Air cleaner filter (Viscous paper type)★						R				R	MA-15
Engine oil filter★*4			R	R	R	R	R	R	R	R	MA-16
II. Gasoline engine exclusive item											
Engine oil (Use API SE, SF, SG, SH & SJ oil)★			R	R	R	R	R	R	R	R	MA-15
Fuel filter★						R				R	MA-15
Positive crankcase ventilation (PCV) system*2				I*1		I		I*1		I	EC section
Spark plugs (Conventional type) (Without catalyst)			I	I	I	R	I	I	I	R	MA-17
Ignition wires						I				I	MA-18
Ignition timing			A*3	A	A*3	A	A*3	A	A*3	A	EC section
Vacuum hoses & connections*2				I		I		I		I	EC section
EVAP vapor lines						I				I	MA-18
Timing belt (VG30E engine)											EM section
Idle rpm & CO% check (VG30E)			I	I	I	I	I	I	I	I	EC section

★: Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.

NOTE: (1) Use Nissan Genuine Engine Coolant, or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant. After first replacement, replace every 40,000 km (24,000 miles) or 24 months.

*1: Models bound for non-emission regulation area

*2: Models without three way catalyst

*3: Only on models for areas of no emission regulations.

PERIODIC MAINTENANCE

Chassis and Body Maintenance

Abbreviations: I = Inspect and correct or replace as necessary, R = Replace, T = Tighten, L = Lubricate.

MAINTENANCE OPERATION	MAINTENANCE INTERVAL											Reference page
	Months	—	6	12	18	24	30	36	42	48		
	Perform at the specified months or mileage whichever comes first.	km x 1,000	1	10	20	30	40	50	60	70	80	
	(Miles x 1,000)	(0.6)	(6)	(12)	(18)	(24)	(30)	(36)	(42)	(48)		
Underhood and under vehicle												
Brake, clutch, automatic transmission & manual steering gear fluid (For level & leaks)★			I	I	I	I	I	I	I	I	I	MA-19
Brake fluid★							R				R	—
Brake booster vacuum hoses, connections & check valve							I				I	—
Power steering fluid & lines (For level & leaks)			I*1	I	I*1	I	I*1	I	I*1	I	I	—
Brake, clutch & exhaust systems			I	I	I	I	I	I	I	I	I	MA-19
Manual transmission gear oil (For level & leaks)*3												—
Transfer fluid & differential gear oil (For level and leaks)			I	I	I	R	I	I	I	R	I	—
Steering gear box & linkage, axle & suspension parts, propeller shafts, front drive shafts★			I	I	I	I	I	I	I	I	I	—
Body mountings			T		T		T		T		T	—
Outside and inside												
Wheel alignment (if necessary, rotate & balance wheels)				I		I		I		I		—
Brake pads, rotors & other brake components★			I	I	I	I	I	I	I	I	I	—
Brake linings, drums & other brake components★				I		I		I		I		—
Front wheel bearing grease (4x2)						I				I		—
Front wheel bearing grease (4x4)★				I*		R		I*		R		—
Free-running hub grease★				I		I		I		I		—
Locks, hinges & hood latch★			L*1	L	L*1	L	L*1	L	L*1	L		—
Seat belts, buckles, retractors, anchors & adjuster				I		I		I		I		—
Foot brake, parking brake & clutch (for free play stroke & operation)			I*1	I	I*1	I	I*1	I	I*1	I		—
Air bag system*2												

NOTE: Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.

*1: Except for models for Australia

*2: Inspect at the first 10 years, and then every 2 years.

*3: Replace oil at 100,000 km (60,000 miles).

Maintenance Under Severe Driving Conditions

The maintenance intervals shown on the preceding pages are for normal operating conditions. If the vehicle is mainly operated under severe driving conditions as shown below, more frequent maintenance must be performed on the following items as shown in the table.

Severe driving conditions

- | | |
|---|--|
| A — Driving under dusty conditions | G — Driving in areas using salt or other corrosive materials |
| B — Driving repeatedly short distances | H — Driving on rough and/or muddy roads or in the desert |
| C — Towing a trailer or caravan | I — Driving with frequent use of braking or in mountainous areas |
| D — Extensive idling | J — Frequent driving in water |
| E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high | |
| F — Driving in high humidity areas or in mountainous areas | |

Maintenance operation: Check = Check and correct or replace as necessary.

Driving condition										Maintenance item	Maintenance operation	Maintenance interval	Reference page	
A	B	C	D	Engine oil & oil filter	Gasoline engine	Replace	Every 3 months or 5,000 km (3,000 miles)	MA-15
A	Air cleaner filter	Viscous paper type	Replace	More frequently	MA-15
A	.	.	.	E	Fuel filter		Replace	Every 20,000 km (12,000 miles) or 12 months	MA-15
.	F	Brake fluid		Replace		—
.	.	C	H	.	Automatic transmission fluid		Replace	Every 40,000 km (24,000 miles) or 24 months	—
.	G	H	.	.	Steering gear & linkage, axle & suspension parts & propeller shaft & front drive shafts		Check	Every 10,000 km (6,000 miles) or 6 months	—
A	.	C	.	.	.	G	H	I	.	Brake pads, rotors & other brake components		Check	Every 5,000 km (3,000 miles) or 3 months	—
.	G	.	.	.	Lock, hinges & hood latch		Lubricate		—
.	J	Front wheel bearing grease & free-running hub grease (4×4)		Check		—
A	.	C	.	.	.	G	H	I	.	Brake linings, drums & other brake components		Check	Every 6 months or 10,000 km (6,000 miles)	—

RECOMMENDED FLUIDS AND LUBRICANTS

Fluids and Lubricants

		Capacity (Approximate)		Recommended Fluids/Lubricants	
		Liter	Imp measure		
Engine oil (Refill)					
With oil filter					
	Z24S	2WD 3.8	3-3/8 qt	Except for Europe: Gasoline engine: API SE, SF, SG, SH or SJ*1 ILSAC grade GF-I or GF-II*1 Diesel engine: API CC or CD*1 For Europe: Gasoline engine: API SG, SH or SJ*1 ILSAC grade GF-I or GF-II*1 Diesel engine: API CD*1 ACEA B3-96, 98 or ACEA B3/E3 96, 98*6	
		4WD 4.3	3-3/4 qt		
	KA24DE	2WD 3.6	3-1/8 qt		
		4WD 4.1	3-5/8 qt		
	VG30E	2WD 3.9	3-3/8 qt		
		4WD 3.3	2-7/8 qt		
TD25 & TD27	6.0	5-1/4 qt			
QD32 & TD25Ti	6.7	5-7/8 qt			
Without oil filter					
	Z24S	2WD 3.3	2-7/8 qt		
		4WD 3.8	3-3/8 qt		
	KA24DE	2WD 3.3	2-7/8 qt		
		4WD 3.8	3-3/8 qt		
	VG30E	2WD 3.6	3-7/8 qt		
		4WD 3.0	2-5/8 qt		
TD25 & TD27	5.3	4-5/8 qt			
QD32 & TD25Ti	6.0	5-1/4 qt			
Cooling system (With reservoir)					
	Z24S	With A/C 8.9	7-7/8 qt	Except for Europe: Nissan Genuine Engine Coolant, or equivalent in its quality*7 For Europe: Genuine Nissan Anti-freeze Coolant (L2N) or equiva- lent*7	
		Without A/C 8.7	7-5/8 qt		
	KA24DE	6.9	6-1/8 qt		
	VG30E	9.0	7-7/8 qt		
	TD25 & TD27	9.5	8-3/8 qt		
	TD25Ti	10.6	9-3/8 qt		
	QD32	9.4, 10.2*4	8-1/4 qt, 9 qt*4		
Manual transmission gear oil	FS5R30A	2WD 2.8	4-7/8 pt	API GL-4, Viscosity SAE 75W-90 only	
		4WD 5.1	9 pt		
	FS5W71C	2WD 2.0	3-1/2 pt		
		4WD 4.9	8-5/8 pt		
Automatic transmission fluid	RE4R01A	8.1	7-1/8 qt	Genuine Nissan ATF or equivalent*2	
Transfer fluid	TX10A	2.2	2 qt	Genuine Nissan ATF or equivalent*2 or API GL-4*1	
Differential gear oil					
Front	R180A	1.3	2-1/4 pt	Standard differential gear: API GL-5*1 Limited-slip differential (LSD) gear: Gear Oil Hypoid LSD (Part No.: KLD31-14002) or equivalent*3	
	C200	1.3	2-1/4 pt		
Rear	H233B	2.8	4-7/8 pt		
Power steering fluid	—	—	—	Type DEXRON™III or equivalent	
Brake and clutch fluid	—	—	—	Except for Europe: DOT 3 (U.S. FMVSS No. 116) For Europe: DOT 3 or DOT 4 (U.S. FMVSS No. 116)*5	
Propeller shaft grease	—	—	—	NLGI No. 2 (Molybdenum disulphide lithium soap base)	
Multi-purpose grease	—	—	—	NLGI No. 2 (Lithium soap base)	

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

*2: Contact a NISSAN dealership for more information regarding suitable fluid, including recommended brand(s) of DEXRONTMIII/MERCONTM Automatic Transmission Fluid.

*3: API GL-5, SAE 140 and 10% volume of LSD Friction Modifier (Part No.: 38469-C6000) is an equivalent.

*4: For Australia or models with air conditioner.

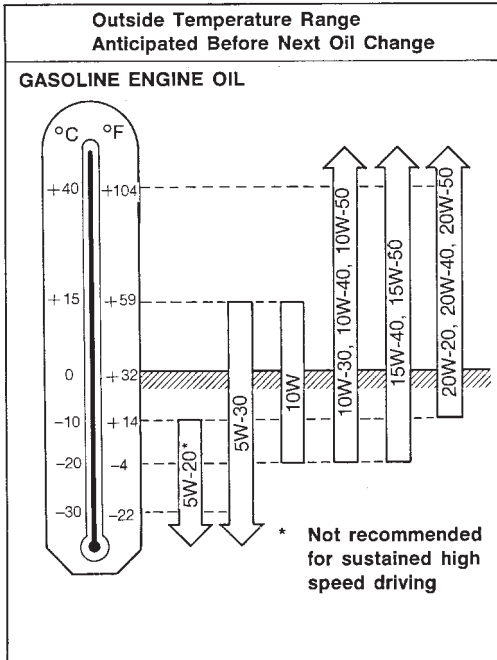
*5: Never mix DOT 3 and DOT 4. (DOT 3 is filled at factory.)

*6: If ACEA B3-96, 98 oils are not available, API CD may be used. However, ACEA oils are strongly recommended if at all possible.

*7: Use Nissan Genuine Engine Coolant, or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant.

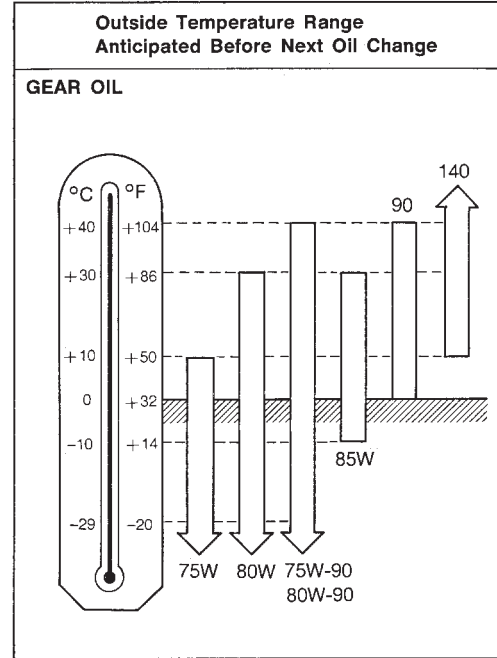
Note that any repairs for the incidents within the engine cooling system while using non-genuine engine coolant may not be covered by the warranty even if such incidents occurred during the warranty period.

SAE Viscosity Number



TI0005

- For warm and cold areas: 10W-30 is preferable for ambient temperatures above -20°C (-4°F).
- For hot areas: 20W-40 and 20W-50 are suitable.



TI0003

- For warm and cold areas: 75W-90 for transfer and 80W-90 for differential are preferable.
- For hot areas: 90 is suitable for ambient temperatures below 40°C (104°F).

GI

MA

EM

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RECOMMENDED FLUIDS AND LUBRICANTS

Outside temperature down to		Composition	
°C	°F	Engine coolant (Concentrated)	Demineralized water or distilled water
-15	5	30%	70%
-35	-30	50%	50%

SMA089D

Engine Coolant Mixture Ratio

- The engine cooling system is filled at the factory with a high-quality, year-round and extended life engine coolant. The high quality engine coolant contains the specific solutions effective for the anti-corrosion and the anti-freeze function. Therefore, additional cooling system additives are not necessary.

CAUTION:

- When adding or replacing coolant, be sure to use only a Nissan Genuine Engine Coolant or equivalent in its quality with the proper mixture ratio. See the following examples:
- The use of other types of engine coolant may damage your cooling system.
- When checking the engine coolant mixture ratio by the coolant hydrometer, use the chart below to correct your hydrometer reading (specific gravity) according to coolant temperature.

Mixed coolant specific gravity

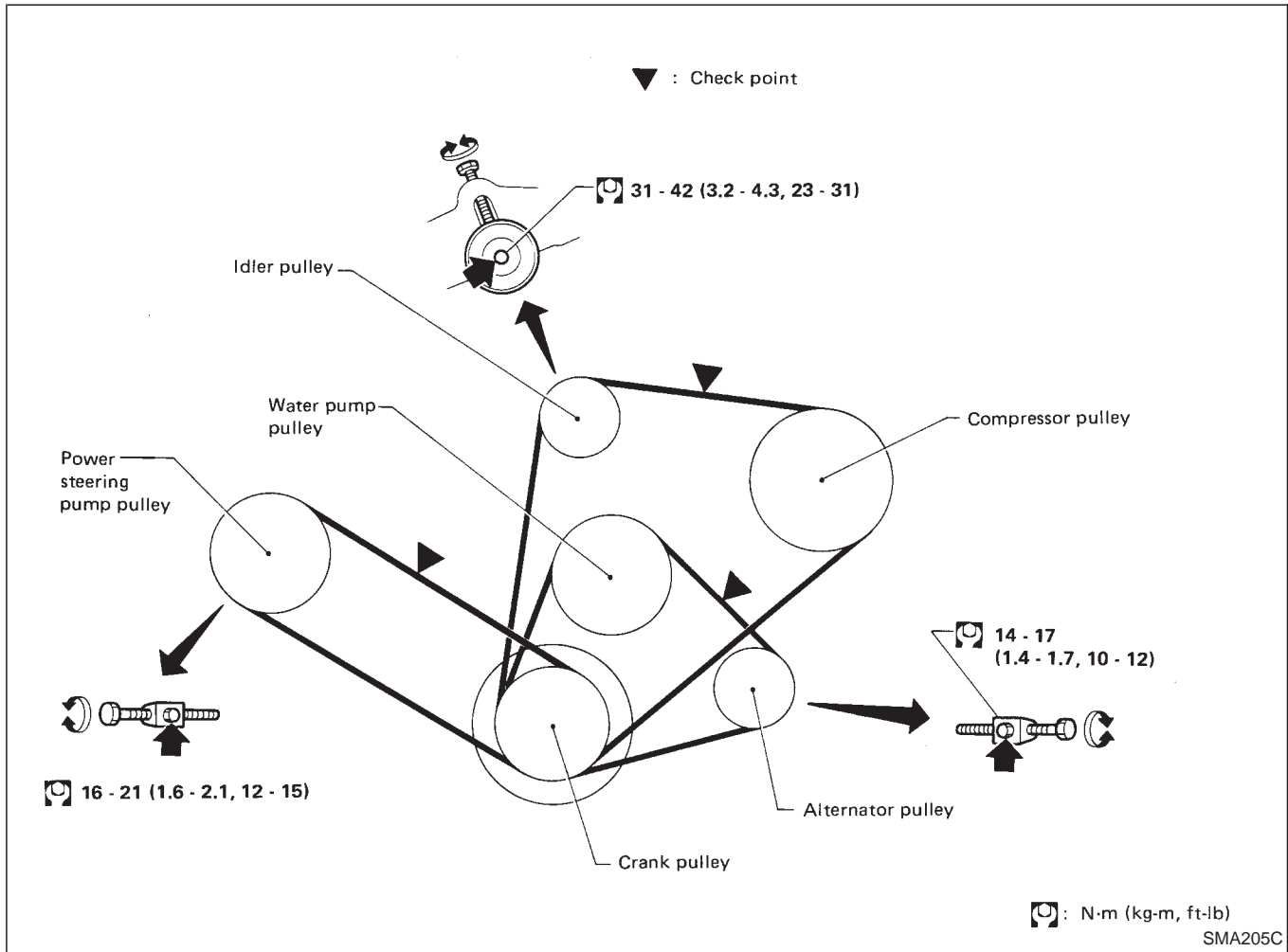
Unit: Specific gravity

Engine coolant mixture ratio	Coolant temperature °C (°F)			
	15 (59)	25 (77)	35 (95)	45 (113)
30%	1.046 - 1.050	1.042 - 1.046	1.038 - 1.042	1.033 - 1.038
50%	1.076 - 1.080	1.070 - 1.076	1.065 - 1.071	1.059 - 1.065

WARNING:

Never remove the radiator cap when the engine is hot. Serious burns could be caused by high pressure fluid escaping from the radiator. Wait until the engine and radiator cool down.

Checking Drive Belts



1. Inspect for cracks, fraying, wear or oil adhesion. If necessary, replace with a new one.
2. Inspect drive belt deflection by pushing on the belt midway between pulleys.

Adjust if belt deflection exceed the limit.

Belt deflection:

Unit: mm (in)

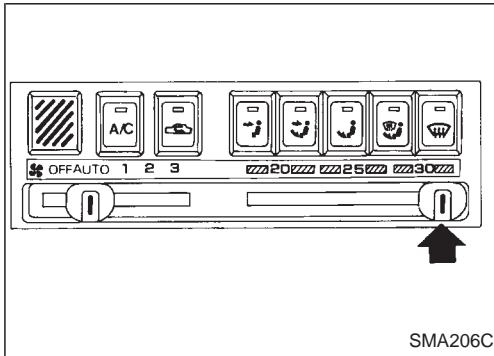
	Used belt deflection		Deflection of new belt
	Limit	Deflection after adjustment	
Alternator	12 (0.47)	6 - 8 (0.24 - 0.31)	5 - 7 (0.20 - 0.28)
Air conditioner compressor	16 (0.63)	9 - 11 (0.35 - 0.43)	7 - 9 (0.28 - 0.35)
Power steering oil pump	17 (0.67)	11 - 13 (0.43 - 0.51)	9 - 11 (0.35 - 0.43)
Applied pushing force	98 N (10 kg, 22 lb)		

Inspect drive belt deflection when engine is cold.

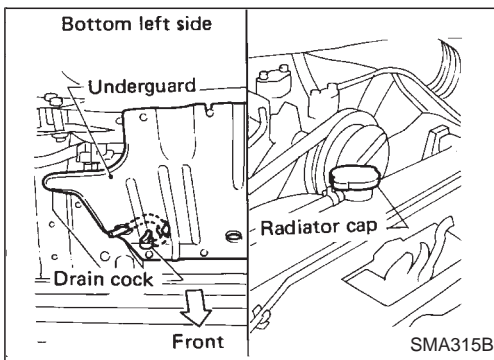
Changing Engine Coolant

WARNING:

To avoid being scalded, never change the coolant when the engine is hot.

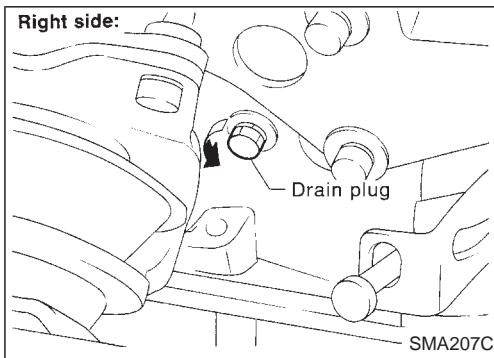


1. Move heater "TEMP" control lever all the way to "HOT" position.



2. Open drain cock at the bottom of radiator, and remove radiator cap.

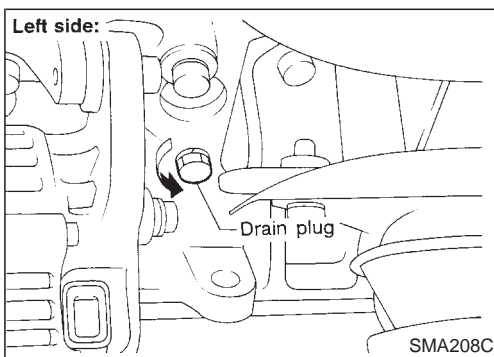
Be careful not to allow coolant to contact drive belts.

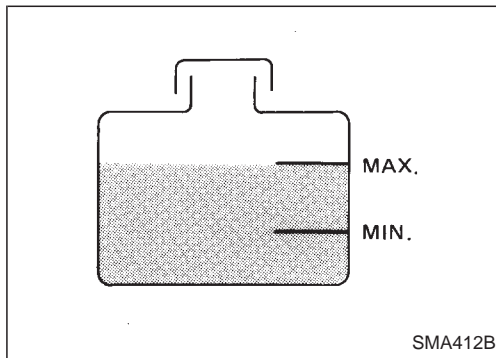
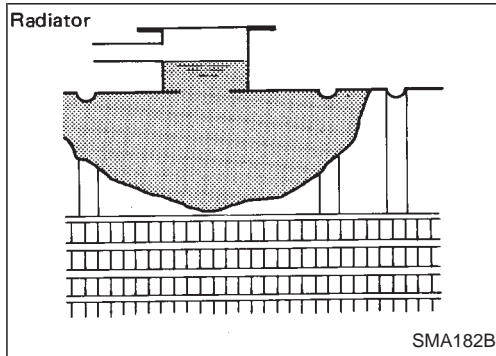
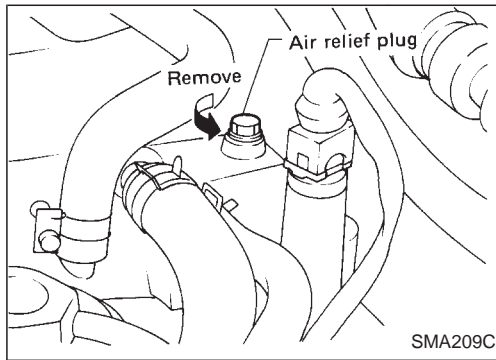


3. Remove drain plugs on both sides of cylinder block.

4. Close drain cock and tighten drain plugs securely.

Torque: 34 - 44 N·m (3.5 - 4.5 kg-m, 25 - 33 ft-lb)
Apply sealant to the drain plug thread.





Changing Engine Coolant (Cont'd)

5. Open air relief plug.
6. Fill radiator with water and close air relief plug.
7. Start engine and warm it up sufficiently.
8. Stop engine and wait until it cools down.
9. Repeat step 3 through step 8 until clear water begins to drain from radiator.
10. Drain water.

11. Open air relief plug again.
12. Fill radiator with coolant up to specified level.
Follow instructions attached to anti-freeze container for mixing ratio of anti-freeze to water.

Coolant capacity:

Without reservoir tank

8.2ℓ (7-1/4 Imp qt)

Reservoir tank:

0.8ℓ (3/4 Imp qt)

- **Pour coolant through coolant filler neck slowly to allow air in system to escape.**

13. Remove reservoir tank, drain coolant, then clean reservoir tank.
14. Fill reservoir tank with coolant up to "MAX" level.
15. Close air relief plug again.
16. Run engine and warm it up.
- If coolant overflows radiator filler hole, install filler cap.
17. Stop engine and cool it down, then add coolant as necessary.

Checking Cooling System

WARNING:

Never remove the radiator cap when the engine is hot; serious burns could be caused by high pressure fluid escaping from the radiator.

Wrap a thick cloth around the cap and carefully remove the cap by turning it a quarter turn to allow built-up pressure to escape. Then continue turning the cap until it can be removed safely.

CHECKING COOLING SYSTEM HOSES

Check hoses for improper attachment, leaks, cracks, damage, loose connections, chafing and deterioration.

Checking Cooling System (Cont'd)**CHECKING COOLING SYSTEM FOR LEAKS**

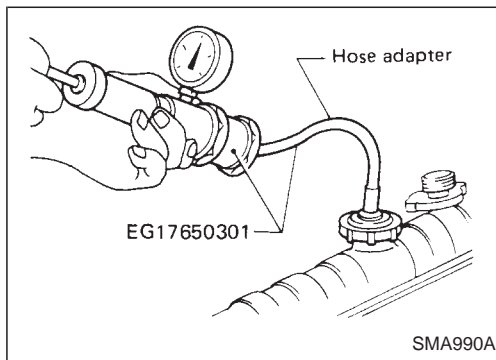
To check for leakage, apply pressure to the cooling system with a tester.

Testing pressure:

98 kPa (0.98 bar, 1.0 kg/cm², 14 psi)

CAUTION:

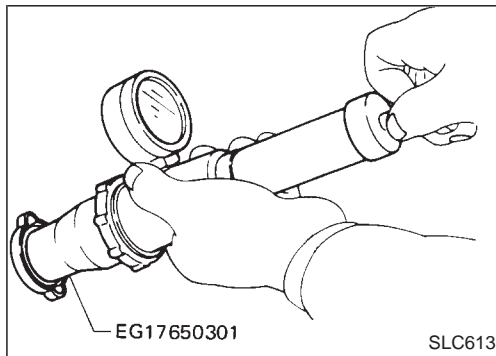
Higher than the specified pressure may cause radiator damage.

**CHECKING RADIATOR CAP**

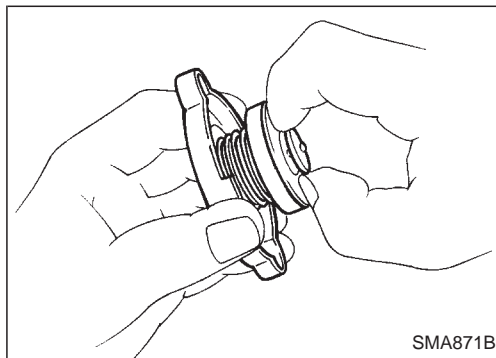
To check radiator cap, apply pressure to cap with a tester.

Radiator cap relief pressure:

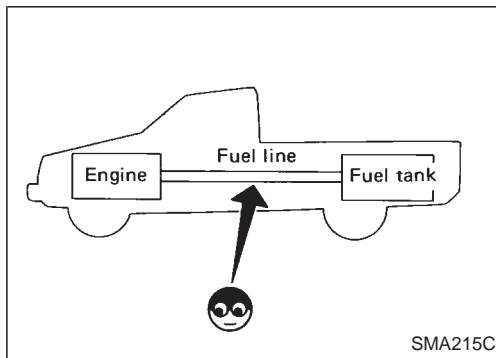
59 - 98 kPa (0.59 - 0.98 bar, 0.6 - 1.0 kg/cm², 9 - 14 psi)



Pull the negative-pressure valve to open it. Check that it closes completely when released.

**Checking Fuel Lines**

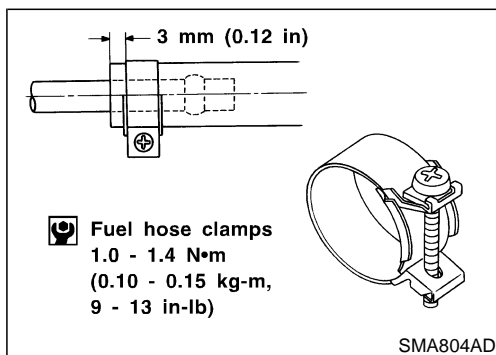
Inspect fuel lines and tank for improper attachment and for leaks, cracks, damage, loose connections, chafing and deterioration. If necessary, repair or replace malfunctioning parts.

**CAUTION:**

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.

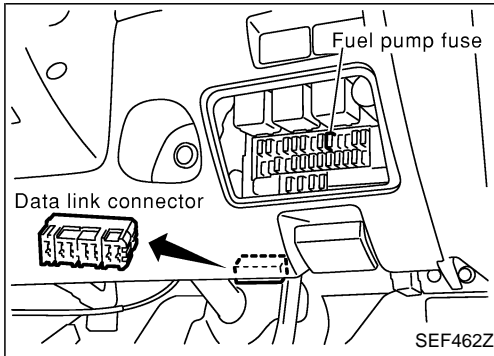
Ensure that screw does not contact adjacent parts.



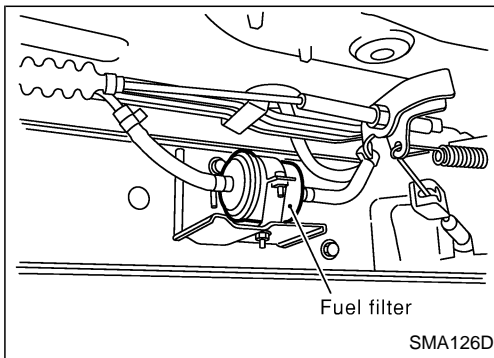
Changing Fuel Filter

WARNING:

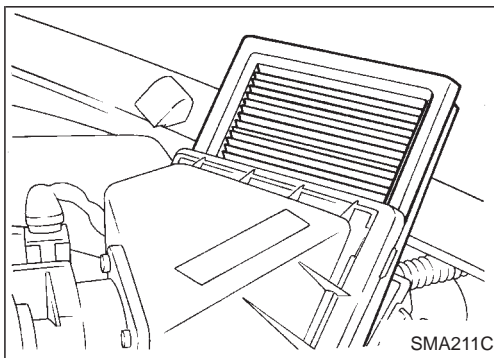
Before removing fuel filter, release fuel pressure from fuel line to eliminate danger.



1. Remove fuse for fuel pump.
2. Start engine.
3. After engine stalls, crank engine two or three times to make sure that fuel pressure is released.
4. Turn ignition switch off and install fuse for fuel pump.

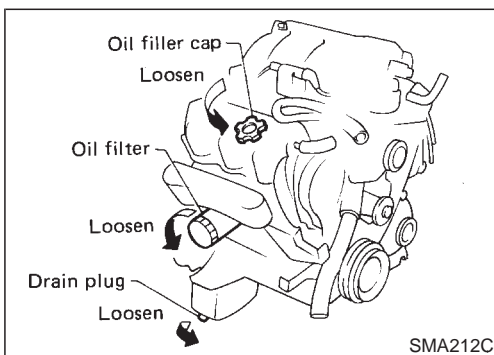


5. Loosen fuel hose clamps.
6. Replace fuel filter.
 - Be careful not to spill fuel over engine compartment. Place a shop towel to absorb fuel.
 - Use a high-pressure type fuel filter. Do not use a synthetic resinous fuel filter.
 - When tightening fuel hose clamps, refer to "Checking Fuel Lines", MA-14.



Changing Air Cleaner Filter

The viscous paper type filter does not need cleaning between renewals.



Changing Engine Oil

WARNING:

Be careful not to burn yourself, as the engine oil is hot.

1. Warm up engine, and check for oil leakage from engine components.
2. Remove drain plug and oil filler cap.

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Changing Engine Oil (Cont'd)

3. Drain oil and refill with new engine oil.

Oil capacity (Refill):

2WD

With oil filter change

3.9ℓ (3-3/8 Imp qt)

Without oil filter change

3.6ℓ (3-1/8 Imp qt)

4WD

With oil filter change

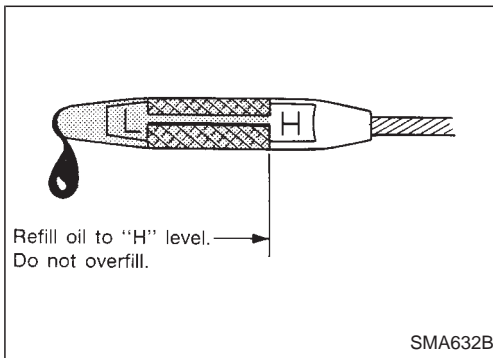
3.3ℓ (2-7/8 Imp qt)

Without oil filter change

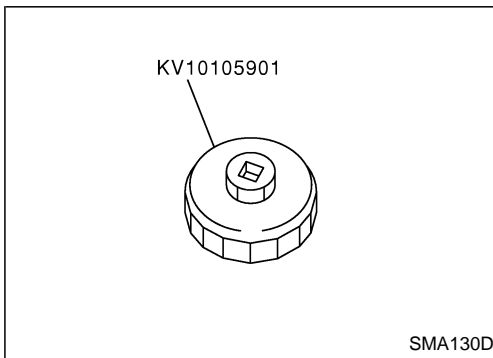
3.0ℓ (2-5/8 Imp qt)

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)
- Use recommended engine oil.
- Since the refill capacity changes depending on the oil temperature and drain time, use these value as a reference and be certain to check the dipstick when changing the oil.



4. Check oil level.
5. Start engine and check area around drain plug and oil filter for oil leakage.
6. Run engine for a few minutes, then it off. After several minutes, check oil level.

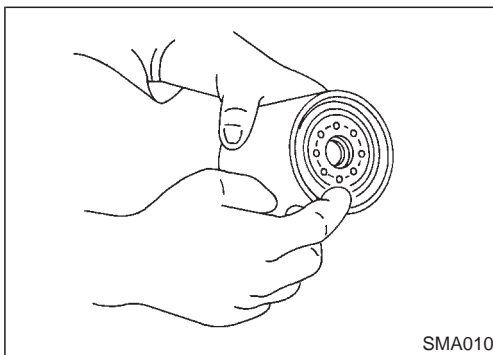


Changing Oil filter

1. Remove oil filter with Tool.

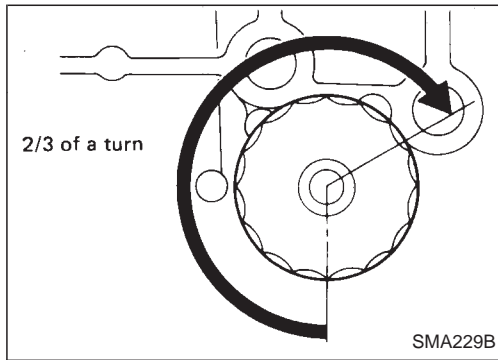
WARNING:

Be careful not to burn yourself, as the engine and engine oil are hot.



2. Before installing a new oil filter, clean the oil filter mounting surface on cylinder block, and coat the oil filter rubber seal with a little engine oil.

Changing Oil filter (Cont'd)



3. Screw in the oil filter until a slight resistance is felt, then tighten additionally more than 2/3 turn.
 4. Add engine oil.
- Refer to "Changing Engine Oil".

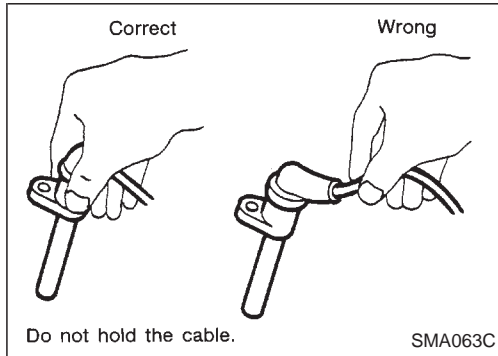
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Changing Spark Plugs



1. Disconnect ignition wires from spark plugs at boot. Do not pull on the wire.

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2. Remove spark plugs with spark plug wrench.

Spark plug:

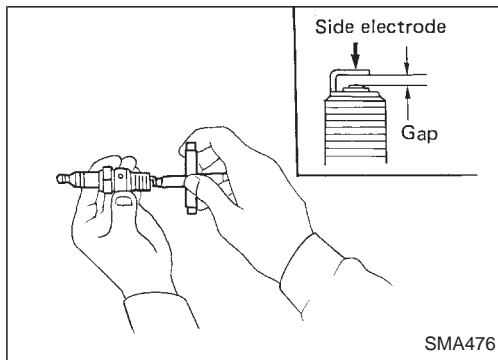
Standard type	BKR6EY
Hot type	BKR5EY
Cold type	BKR7EY

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3. Check spark plug gap of each new spark plug.

Gap:

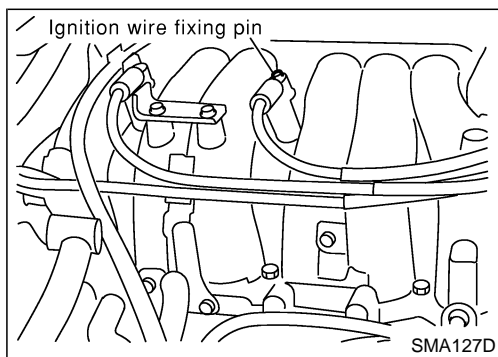
0.8 - 0.9 mm (0.031 - 0.035 in)

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4. Install spark plugs. Reconnect ignition wires according to Nos. indicated on them.

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

Spark plug:

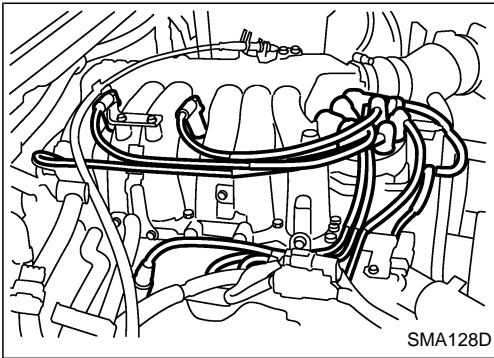
: 20 - 29 N·m (2.0 - 3.0 kg-m, 14 - 22 ft-lb)

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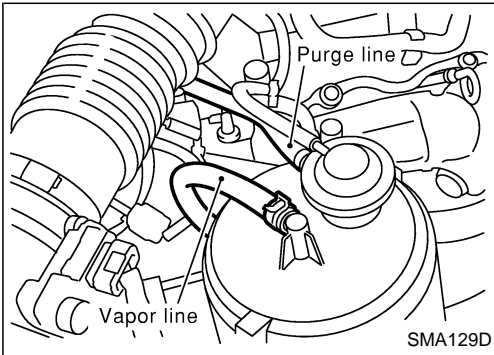
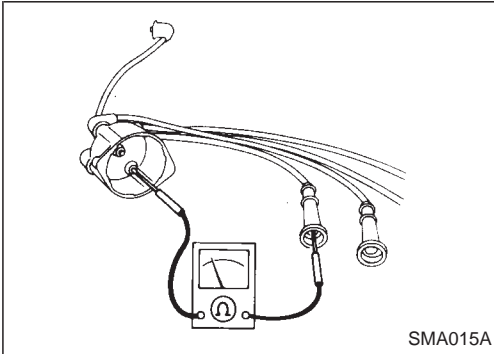


Checking Ignition Wires

1. Inspect wires for cracks, damage, burned terminals and for improper fit.
2. Measure the resistance of wires and check for intermittent breaks by shaking them.

Resistance: Less than 30 k Ω

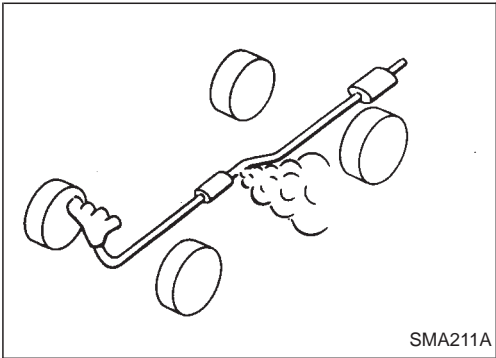
If NG, replace ignition wires with a new one.



Checking Vapor Lines

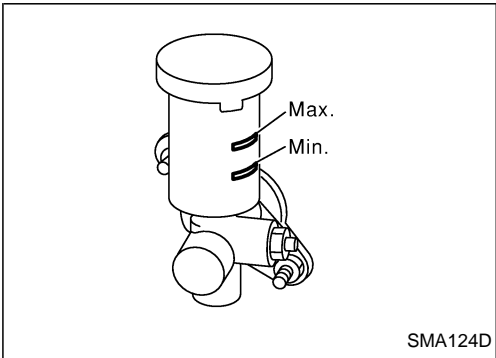
1. Visually inspect vapor lines for improper attachment and for cracks, damage, loose connections, chafing and deterioration.
2. Inspect vacuum relief valve of fuel tank filler cap for clogging, sticking, etc.

Refer to EC section, "EVAPORATIVE EMISSION CONTROL SYSTEM".



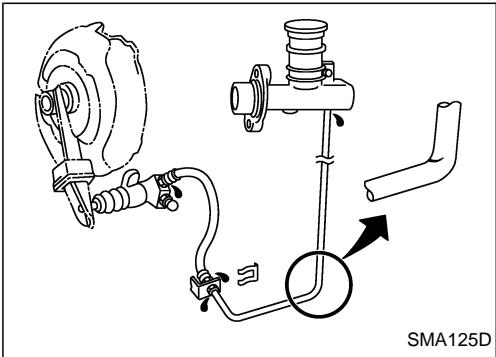
Checking Exhaust System

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



Checking Clutch Fluid Level and Leaks

If fluid level is extremely low, check clutch system for leaks.



Checking Clutch System

If fluid level is extremely low, check clutch system for leaks.

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Engine Maintenance

INSPECTION AND ADJUSTMENT

Drive belt deflection

Unit: mm (in)

	Used belt deflection		Deflection of new belt
	Limit	Deflection after adjustment	
Alternator	12 (0.47)	6 - 8 (0.24 - 0.31)	5 - 7 (0.20 - 0.28)
Air conditioner compressor	16 (0.63)	9 - 11 (0.35 - 0.43)	7 - 9 (0.28 - 0.35)
Power steering oil pump	17 (0.67)	11 - 13 (0.43 - 0.51)	9 - 11 (0.35 - 0.43)
Applied pushing force	98 N (10 kg, 22 lb)		

Oil capacity (Refill)

2WD

Unit: ℓ (Imp qt)

With oil filter change	3.9 (3-3/8)
Without oil filter change	3.6 (3-1/8)

4WD

Unit: ℓ (Imp qt)

With oil filter change	3.3 (2-7/8)
Without oil filter change	3.0 (2-5/8)

Coolant capacity

Unit: ℓ (Imp qt)

Without reservoir tank	8.2 (7-1/4)
Reservoir tank	0.8 (3/4)

Spark plug

Standard type	BKR6EY
Hot type	BKR5EY
Cold type	BKR7EY
Plug gap	mm (in) 0.8 - 0.9 (0.031 - 0.035)

Chassis and Body Maintenance

INSPECTION AND ADJUSTMENT

Clutch

Unit: mm (in)	
Pedal height "H"	
KA24DE engine model	195 - 205 (7.68 - 8.07)
TD27 engine model	195 - 205 (7.68 - 8.07)
VG30E engine model	203 - 213 (7.99 - 8.39)

*: Measured from surface of melt sheet to pedal pad.

Wheel and tire

Wheel balance (Maximum allowable unbalance at rim flange)	g (oz)	10 (0.35)
Tire balancing weight	g (oz)	5 - 60 (0.18 - 2.12) Spacing 5 (0.18)

TIGHTENING TORQUE

Unit	N·m	kg·m	ft·lb	in·lb
Differential carrier				
Drain and filler plugs (Except C200 type)				
Front	39 - 59	4 - 6	29 - 43	—
Rear	59 - 98	6 - 10	43 - 72	—
Drain plug*	59 - 98	6 - 10	43 - 72	—
Filler plug*	39 - 59	4 - 6	29 - 43	—
Front axle and front suspension				
Tie-rod lock clamp bolt (2WD)	14 - 20	1.4 - 2.0	10 - 14	—
Tie-rod lock nut (4WD)	78 - 98	8.0 - 10.0	58 - 72	—
Brake				
Air bleeder valve	6.9 - 8.8	0.7 - 0.9	—	61 - 78
Stop lamp switch lock nut	12 - 15	1.2 - 1.5	9 - 11	—
Brake booster input rod lock nut	16 - 22	1.6 - 2.2	12 - 16	—
Wheel and tire				
Wheel nut	118 - 147	12 - 15	87 - 108	—

*: Model equipped with C200

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