

PERIODIC MAINTENANCE SERVICES

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1. Schedule of Inspection and Maintenance Services

A: FEDERAL SPEC. VEHICLES

Continue periodic maintenance beyond 192,000 km (120,000 miles) or 120 months by returning to the first column of the maintenance schedule and adding 192,000 km (120,000 miles) or 120 months to the column headings.

MAINTENANCE ITEM	MAINTENANCE INTERVAL (Number of months or km (miles), whichever occurs first)																		REMARKS
	Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120	
	× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	
	× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120	
1	Drive belt(s) [Except camshaft]						I				I					I		R	
2	Camshaft drive belt						I				I					I		R	
3	Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
4	Engine oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
5	Replace engine coolant and inspect cooling system, hoses and connections						P				P				P				P
6	Replace fuel filter and inspect fuel system, hoses and connections						(P)				P				(P)				P
7	Air cleaner element						R				R				R				R
8	Spark plugs	2200 cc					R				R				R				R
		2500 cc									R								R
9	Transmission/Differential (Front & Rear) lubricants (Gear oil)						I				I				I				I
10	Automatic transmission fluid						I				I				I				I
11	Brake fluid						R				R				R				R
12	Disc brake pads and discs, Front and rear axle boots and axle shaft joint portions				I		I		I		I		I		I		I		I
13	Brake linings and drums						I				I				I				I
14	Inspect brake line and check operation of parking and service brake system				P		P		P		P		P		P		P		P
15	Clutch and hill-holder system				I		I		I		I		I		I		I		I
16	Steering and suspension				I		I		I		I		I		I		I		I
17	Front and rear wheel bearing lubricant										(I)								(I)
18	Supplemental restraint system	Inspect every 10 years																	
19	Valve clearance																		I

R: Replace
 I: Inspect, correct or replace if necessary.
 P: Perform
 (I) or (P): Recommended service for safe vehicle operation

NOTE:

1) When the vehicle is used under severe driving conditions such as those mentioned below*, the engine oil and filter should be changed every 6,000 km (3,750 miles) or 3.5 months.

2) When the vehicle is used in extremely cold or hot weather areas, contamination of the filter may occur and filter replacement should be performed more often.

3) When the vehicle is frequently operated under severe conditions, replacement should be performed every 24,000 km (15,000 miles).

4) When the vehicle is frequently operated under severe conditions such as mountain driving, replacement should be performed every 24,000 km (15,000 miles).

5) When the vehicle is used in high humidity areas or in mountainous areas, change the brake fluid every 24,000 km (15,000 miles) or 15 months, whichever occurs first.

6) When the vehicle is used under severe driving conditions such as those mentioned below*, inspection should be performed every 12,000 km (7,500 miles) or 7.5 months, whichever occurs first.

7) This inspection is not required to maintain emission warranty eligibility and it does not affect the manufacturer's obligations under EPA's in-use compliance program.

8) When the vehicle is used in extremely dusty conditions, the air cleaner element should be replaced more often.

● * Examples of severe driving conditions:

- Repeated short distance driving. (Items 3, 12 and 13 only)
- Driving on rough and/or muddy roads. (Items 12, 13 and 16 only)
- Driving in dusty conditions.
- Driving in extremely cold weather. (Items 3 and 16 only)
- Driving in areas where roads salts or other corrosive materials are used. (Items 6, 12, 13, 14 and 16 only)
- Living in coastal areas. (Items 6, 12, 13, 14 and 16 only)
- Towing a trailer. (Items 3, 4, 9, 10, 12 and 13 only)

B: CALIFORNIA SPEC. VEHICLES

Continue periodic maintenance beyond 192,000 km (120,000 miles) or 120 months by returning to the first column of the maintenance schedule and adding 192,000 km (120,000 miles) or 120 months to the column headings.

MAINTENANCE ITEM	MAINTENANCE INTERVAL (Number of months or km (miles), whichever occurs first)																	REMARKS	
	Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5		120
	× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180		192
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1	Drive belt(s) [Except camshaft]					I				I				I		R			
2	Camshaft drive belt					I				I				I		R			
3	Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
4	Engine oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
5	Replace engine coolant and inspect cooling system, hoses and connections					P				P				P					P
6	Replace fuel filter and inspect fuel system, hoses and connections					(P)				(P)				(P)					P
7	Air cleaner element					R				R				R					R
8	Spark plugs	2200 cc				R				R				R					R
		2500 cc									R								R
9	Transmission/Differential (Front & Rear) lubricants (Gear oil)					I				I				I					I
10	Automatic transmission fluid					I				I				I					I
11	Brake fluid					R				R				R					R
12	Disc brake pads and discs, Front and rear axle boots and axle shaft joint portions			I		I		I		I		I		I		I		I	I
13	Brake linings and drums					I				I				I					I
14	Inspect brake line and check operation of parking and service brake system			P		P		P		P		P		P		P		P	P
15	Clutch and hill-holder system			I		I		I		I		I		I		I		I	I
16	Steering and suspension			I		I		I		I		I		I		I		I	I
17	Front and rear wheel bearing lubricant									(I)									(I)
18	Supplemental restraint system	Inspect every 10 years																	
19	Valve clearance																		I

- R: Replace
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NOTE:

- 1) When the vehicle is used under severe driving conditions such as those mentioned below*, the engine oil and filter should be changed every 6,000 km (3,750 miles) or 3.5 months.**
- 2) When the vehicle is used in extremely cold or hot weather areas, contamination of the filter may occur and filter replacement should be performed more often.**
- 3) When the vehicle is frequently operated under severe driving conditions, replacement should be performed every 24,000 km (15,000 miles).**
- 4) When the vehicle is frequently operated under severe driving conditions, such as mountain driving replacement should be performed every 24,000 km (15,000 miles).**
- 5) When the vehicle is used in high humidity areas or in mountainous areas, change the brake fluid every 24,000 km (15,000 miles) or 15 months, whichever occurs first.**
- 6) When the vehicle is used under severe driving conditions such as those mentioned below*, inspection should be performed every 12,000 km (7,500 miles) or 7.5 months, whichever occurs first.**
- 7) This inspection is not required to maintain emission warranty eligibility and it does not affect the manufacturer's obligations under EPA's in-use compliance program.**
- 8) When the vehicle is used in extremely dusty conditions, the air cleaner element should be replaced more often.**

- * Examples of severe driving conditions:
 - Repeated short distance driving. (Items 3, 12 and 13 only)
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 - Driving in extremely cold weather. (Items 3 and 16 only)
 - Driving in areas where roads salts or other corrosive materials are used. (Items 6, 12, 13, 14 and 16 only)
 - Living in coastal areas. (Items 6, 12, 13, 14 and 16 only)
 - Towing a trailer. (Items 3, 4, 9, 10, 12 and 13 only)

2. Drive Belt(s) [Except Camshaft] (Inspect drive belt tension)

MAINTENANCE INTERVAL [Number of months or km (miles), whichever occurs first]																	
Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
California					I				I				I		R		
All states except California					I				I				I		R		

A: INSPECTION

- 1) Replace belts, if cracks, fraying or wear is found.
- 2) Check drive belt tension and adjust it if necessary by changing generator installing position and/or idler pulley installing position.

Belt tension

(A)

replaced: 7 — 9 mm (0.276 — 0.354 in)

reused: 9 — 11 mm (0.354 — 0.433 in)

(B)*

replaced: 7.5 — 8.5 mm

(0.295 — 0.335 in)

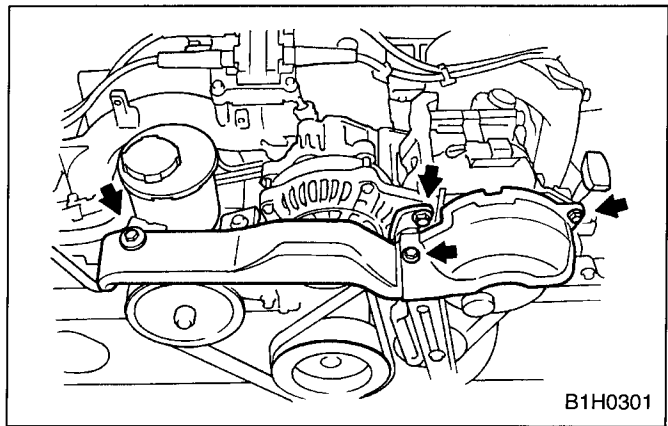
reused: 9.0 — 10.0 mm (0.354 — 0.394 in)

*: There is no belt (B) on models without an air conditioning.

B: REPLACEMENT

1. V-BELT COVER

- 1) Remove V-belt cover.



2. FRONT SIDE BELT (Driving Power Steering Oil Pump and Generator)

CAUTION:

Wipe off any oil or water on the belt and pulley.

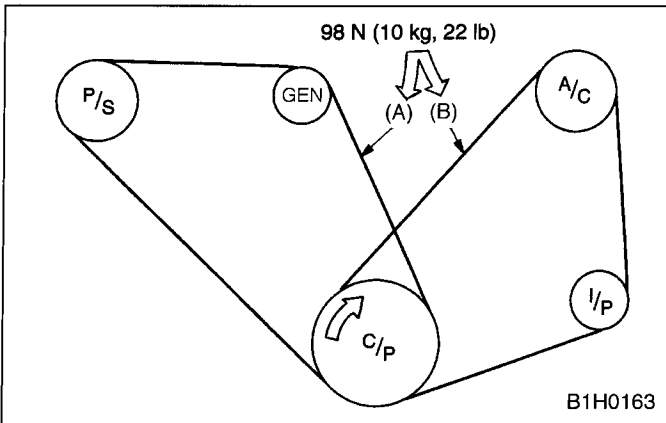
- 1) Loosen the lock bolt on the slider bolt.
- 2) Loosen the slider bolt and through bolt.
- 3) Remove the front side belt.
- 4) Install a new belt, and tighten the slider bolt so as to obtain the specified belt tension.
- 5) Tighten the lock bolt and through bolt.
- 6) Tighten the slider bolt.

Tightening torque:

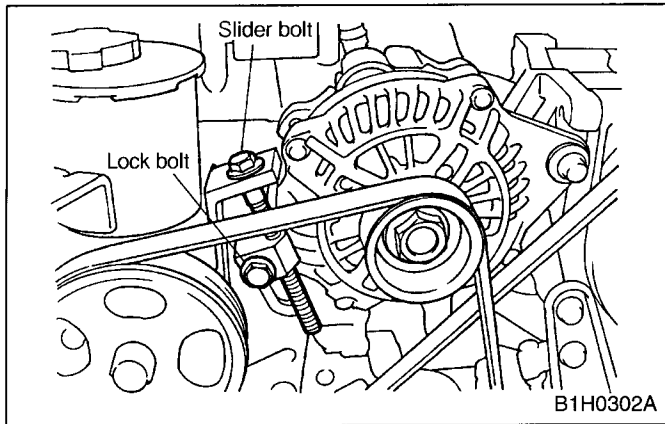
**Lock bolt, through bolt: 25 ± 2 N.m
(2.5 ± 0.2 kg-m, 18 ± 1.5 ft-lb)**

Slider bolt: 8 ± 2 N.m

(0.8 ± 0.2 kg-m, 5.5 ± 1.5 ft-lb)



- C/P Crankshaft pulley
- GEN Generator
- P/S Power steering oil pump pulley
- A/C Air conditioning compressor pulley
- I/P Idler pulley



3. REAR SIDE BELT (Driving Air Conditioning)

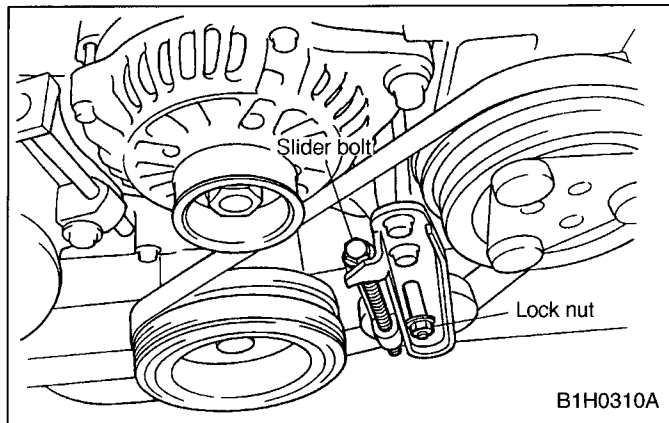
CAUTION:

- Wipe off any oil or water on the belt and pulley.
- Before removing the rear side belt, remove the front side belt.

- 1) Loosen the lock nut on the slider bolt.
- 2) Loosen the slider bolt.
- 3) Remove the rear side belt.
- 4) Install a new belt, and tighten the slider bolt so as to obtain the specified belt tension shown on the previous page.
- 5) Tighten the lock nut.
- 6) Tighten the slider bolt.

Tightening torque (Lock nut):

$20 \pm 3 \text{ N.m}$ ($2 \pm 0.3 \text{ kg-m}$, $14 \pm 2.2 \text{ ft-lb}$)



3. Camshaft Drive Belt (Timing Belt)

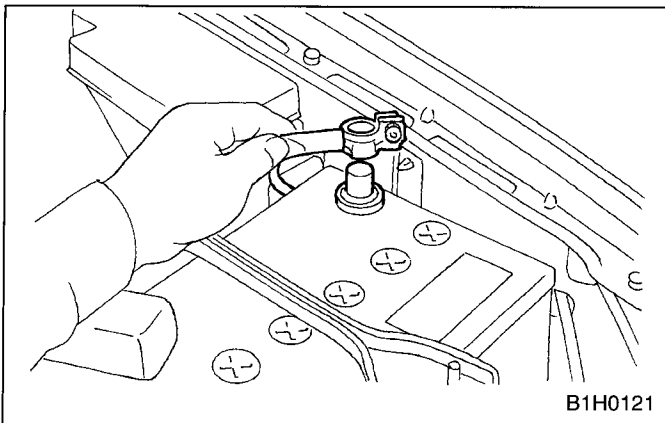
MAINTENANCE INTERVAL																	
[Number of months or km (miles), whichever occurs first]																	
Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
California					I*				I*				I*		R		
All states except California and Canada (2200 cc)					I				R				I				R
All states except California and Canada (2500 cc)					I*				I*				I*		R		

*: This maintenance operation is required for all state except California. However, we do recommend that this operation be performed on California vehicles as well.

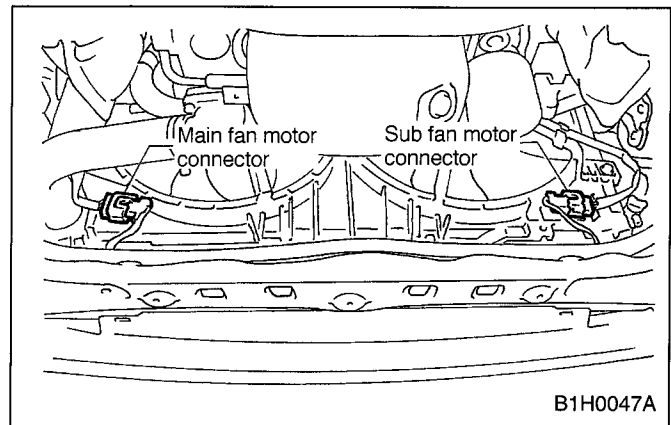
A: REPLACEMENT

1. SOHC MODEL

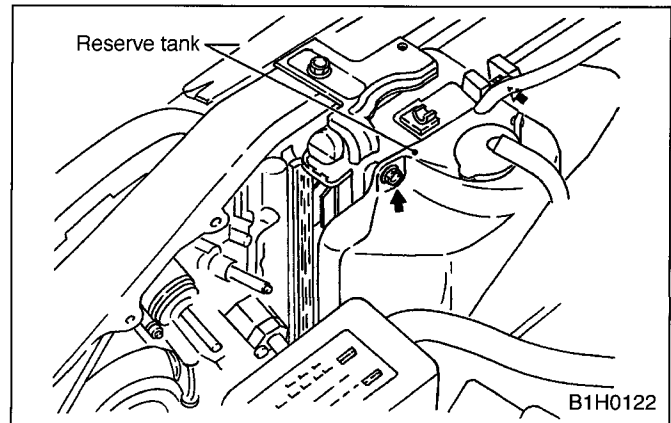
1) Disconnect ground cable (-) from battery.



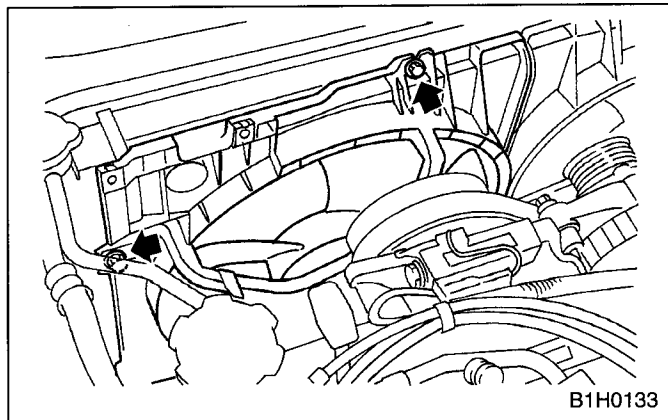
2) Disconnect radiator main fan motor connector and sub fan motor connector.



3) Remove reservoir tank.



4) Remove four bolts holding shroud to radiator.

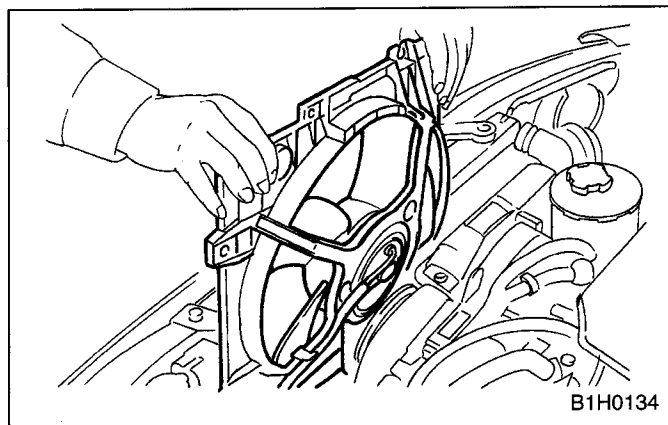


B1H0133

5) Remove radiator main fan motor assembly.

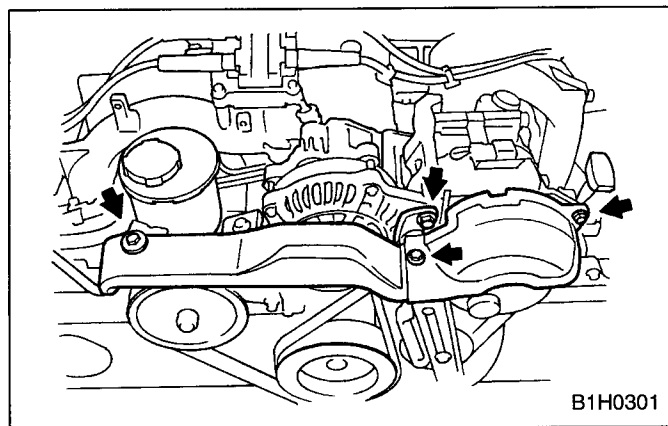
CAUTION:

Remove radiator sub fan motor assembly in the same step described in the removal of radiator main fan motor assembly.



B1H0134

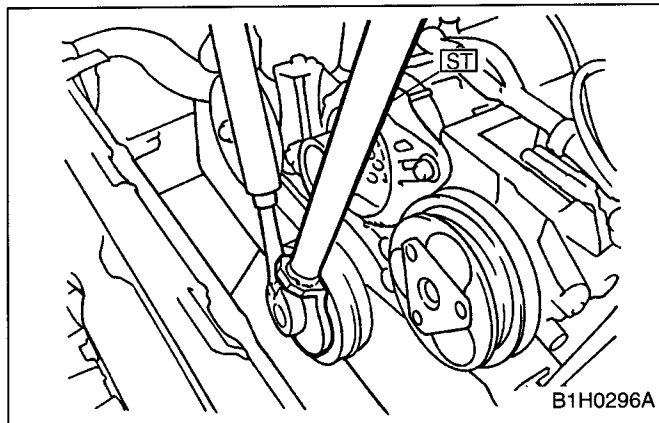
6) Remove V-belt cover.



B1H0301

7) Remove V-belts. <Ref. to 1-5 [G2B1]. ☆14>
8) Remove pulley bolt. To lock crankshaft use ST.

ST 499977300 CRANKSHAFT PULLEY WRENCH



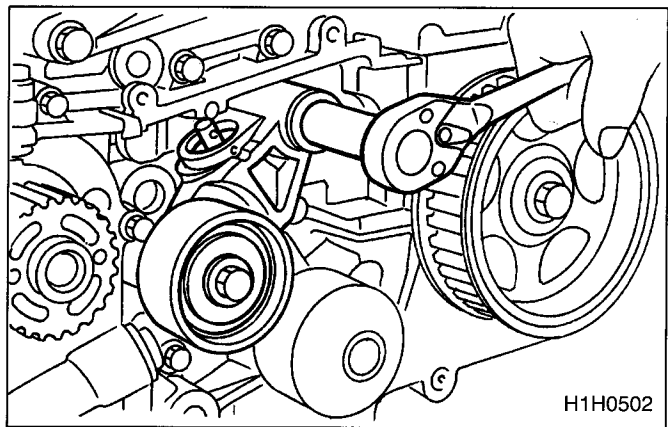
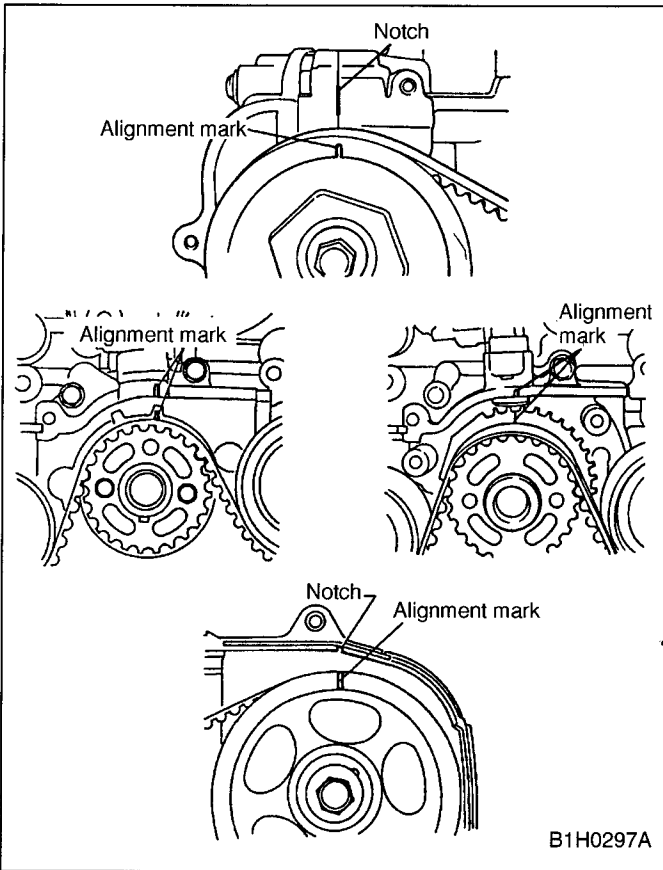
B1H0296A

9) Remove crankshaft pulley.
10) Remove left side belt cover.
11) Remove right side belt cover.
12) Remove front belt cover.
13) If alignment mark and/or arrow mark (which indicates rotation direction) on timing belt fade away, put new marks before removing timing belt as follows:

(1) Turn crankshaft and align alignment marks on crankshaft, and left and right camshaft sprockets with notches of belt cover and cylinder block.

ST 499987500 CRANKSHAFT SOCKET

3. Camshaft Drive Belt (Timing Belt)



B: INSTALLATION

1. SOHC MODEL

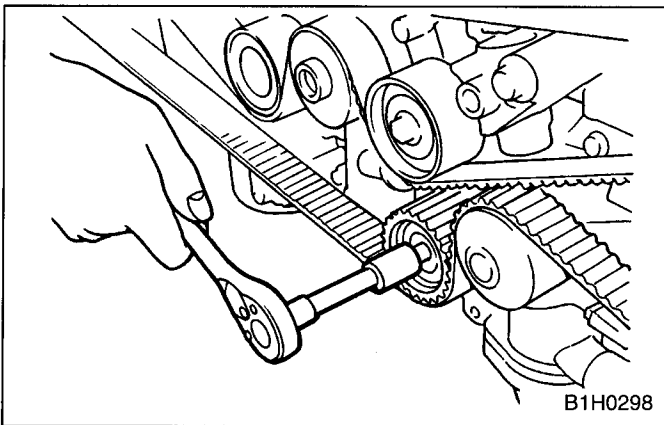
To install, reverse order of removal procedures.
 <Ref. to 2-3a [W2C0]. ☆14>

C: INSPECTION

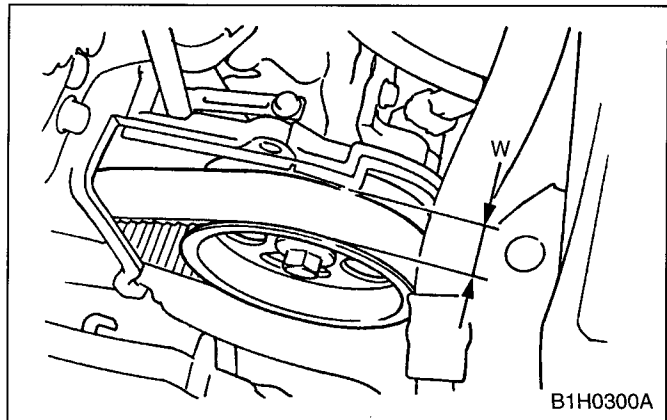
1. SOHC MODEL

- 1) Remove reservoir tank.
- 2) Remove left timing belt covers.
- 3) While cranking engine at least four rotations, check timing belt back surface for cracks or damage. Replace faulty timing belt as needed.
- 4) Measure timing belt width W. If it is less than 27 mm (1.06 in), check idlers, tensioner, water pump pulley and cam sprocket to determine idler alignment (squareness). Replace worn timing belt.

14) Remove belt idler No. 2.



- 15) Remove timing belt.
- 16) Remove automatic belt tension adjuster assembly.



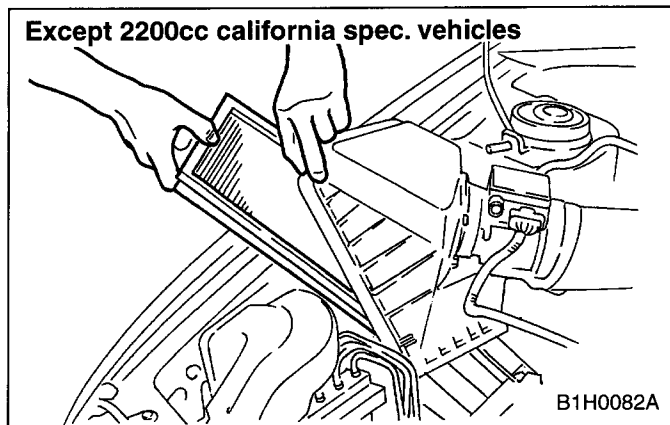
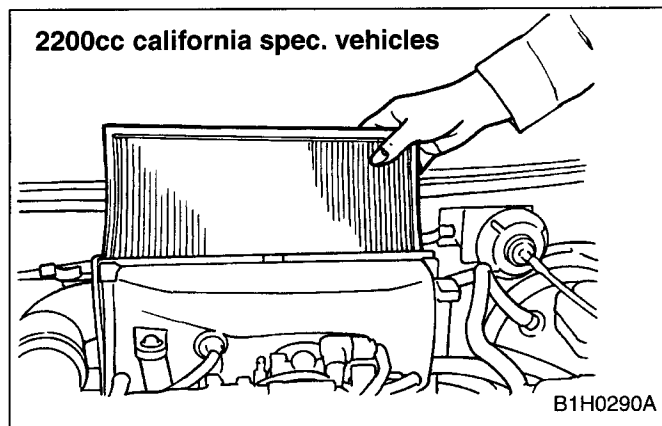
5) Install left timing belt covers.

8. Air Cleaner Element

MAINTENANCE INTERVAL																	
[Number of months or km (miles), whichever occurs first]																	
Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
California					R				R				R				R
All states except California					R				R				R				R

A: REPLACEMENT

Do not attempt to clean the air cleaner element. The filter paper of the element is wetted with a special non-inflammable slow-evaporating viscous liquid. It is resistant to cold weather and has a long service life. Dirt adhering to this filter paper forms porous laminations with the viscous liquid, which function as a filtration layer to reduce dust penetration into the filter paper. If this filter paper is cleaned, the filtration layer thus formed will be lost along with the viscous liquid.



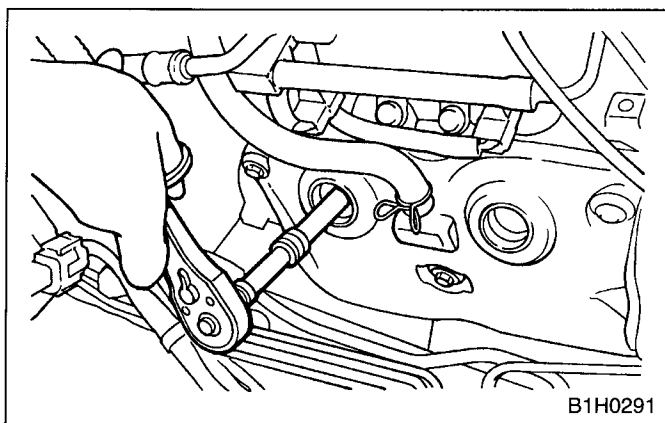
9. Spark Plugs

MAINTENANCE INTERVAL [Number of months or km (miles), whichever occurs first]																	
Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
California (2200 cc)					R				R				R				R
California (2500 cc)									R								R
All states except California (2200 cc)					R				R				R				R
All states except California (2500 cc)									R								R

A: REPLACEMENT

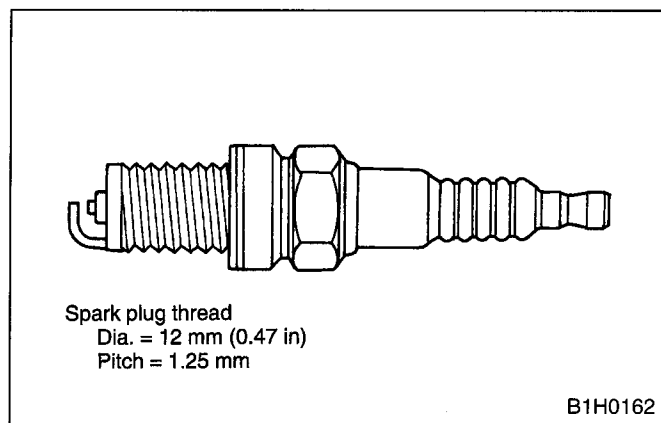
1. SOHC MODEL

- 1) Remove intake duct and intake chamber.
- 2) Remove washer tank and put it aside.
- 3) Disconnect spark plug cord.
- 4) Remove spark plug with a plug-wrench.



- 5) Set new spark plug.

Recommended spark plug:
CHAMPION (Alternate) RC10YC4
NGK BKR5E-11



- 6) Tighten spark plug lightly with hand, and then secure with a plug-wrench to the specified torque.

Tightening torque:
21 ± 3 N.m (2.1 ± 0.3 kg-m, 15 ± 2 ft-lb)

CAUTION:
Be sure to place the gasket between the cylinder head and spark plug.

NOTE:
If torque wrench is not available, tighten spark plug until gasket contacts cylinder head; then tighten further 1/4 to 1/2 turns.

10. Transmission/Differential (Front and rear) Lubricants (Gear oil)

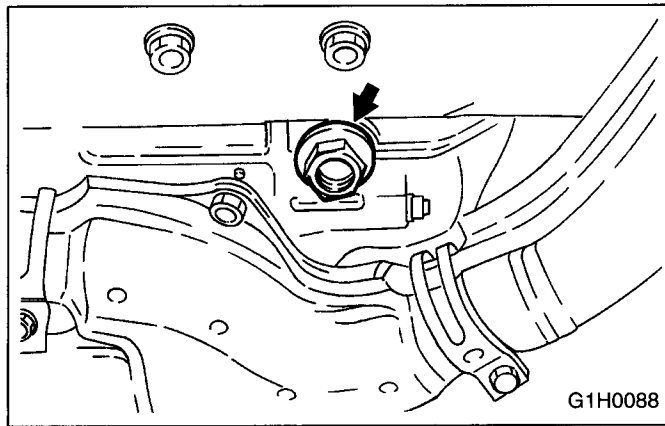
MAINTENANCE INTERVAL																	
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California																	
All states except California																	

A: REPLACEMENT

1. MANUAL TRANSMISSION

1) Drain gear oil by removing drain plug after allowing the engine to cool for 3 to 4 hours.

CAUTION:
Before starting work, cool off the engine well.



2) Reinstall drain plug after draining gear oil and tighten it to the specified torque.

Tightening torque:
 $44 \pm 3 \text{ N.m}$ ($4.5 \pm 0.3 \text{ kg-m}$, $32.5 \pm 2.2 \text{ ft-lb}$)

CAUTION:

- Be sure to place a gasket between the transmission case and drain plug.
- Replace the gasket with a new one.

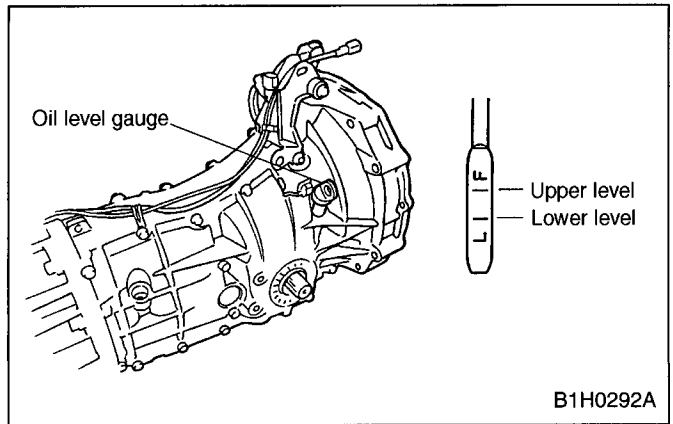
3) Fill transmission gear oil through the oil level gauge up to the upper point of level gauge.

Gear oil capacity:

AWD model: 3.5 ℓ (3.7 US qt, 3.1 Imp qt)

**Transmission gear oil
Recommended oil**

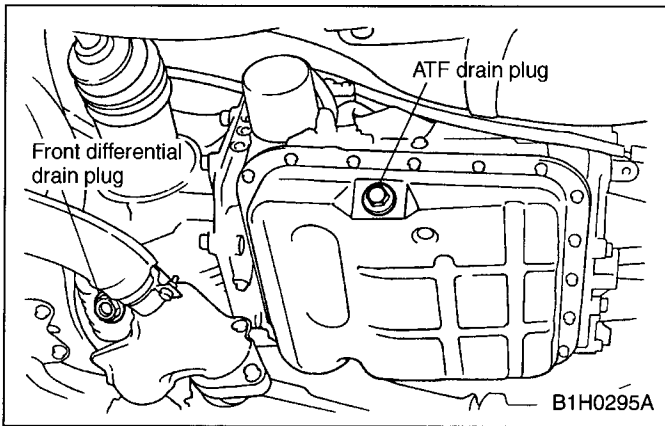
ITEM									
• Transmission gear oil									
API Classification									
GL - 5									
SAE Viscosity No. and Applicable Temperature									
(°C)	-30	-26	-15	-5	0	15	25	30	
(°F)	-22	-15	5	23	32	59	77	86	
						90			
						85W			
						80W			
						75W - 90			
B1H0024									



2. FRONT DIFFERENTIAL (AUTOMATIC TRANSMISSION)

1) Drain differential gear oil by removing drain plug after allowing the engine to cool for 3 to 4 hours.

CAUTION:
Before starting work, cool off the engine well.



2) Reinstall drain plug after draining differential gear oil and tighten it to the specified torque.

Tightening torque:
 $44 \pm 3 \text{ N.m}$ ($4.5 \pm 0.3 \text{ kg-m}$, $33 \pm 2.2 \text{ ft-lb}$)

CAUTION:

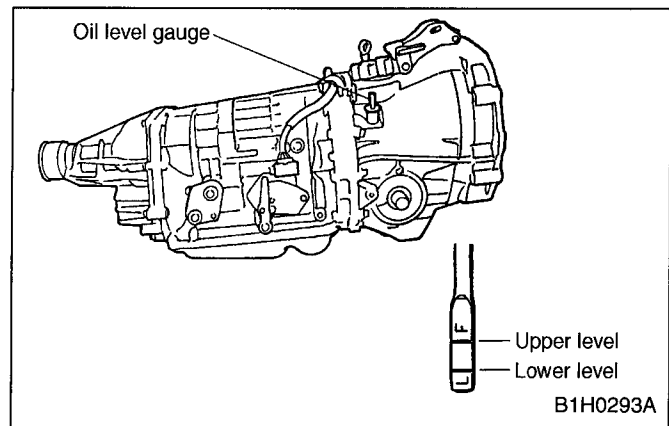
- Be sure to place a gasket between the transmission case and drain plug.
- Replace the gasket with a new one.

3) Fill differential gear oil through the oil level gauge hole up to the upper point of level gauge.

Differential gear oil capacity:
1.1 — 1.3 ℓ
(1.2 — 1.4 US qt, 1.0 — 1.1 Imp qt)

Front differential gear oil Recommended oil

ITEM								
• Front differential gear oil								
API Classification								
GL - 5								
SAE Viscosity No. and Applicable Temperature								
(°C)	-30	-26	-15	-5	0	15	25	30
(°F)	-22	-15	5	23	32	59	77	86
						90		
						85W		
						80W		
						80W - 90		
								B1H0039



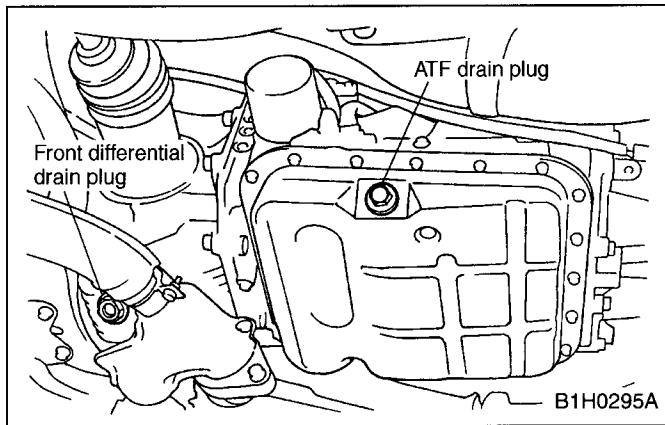
11. Automatic Transmission

MAINTENANCE INTERVAL																	
[Number of months or km (miles), whichever occurs first]																	
Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
California																	
All states except California																	

A: REPLACEMENT

1) Drain ATF (Automatic Transmission Fluid) by removing drain plug after allowing the engine to cool for 3 to 4 hours.

CAUTION:
Before starting work, cool off the engine well.



2) Reinstall drain plug after draining ATF, and tighten it to the specified torque.

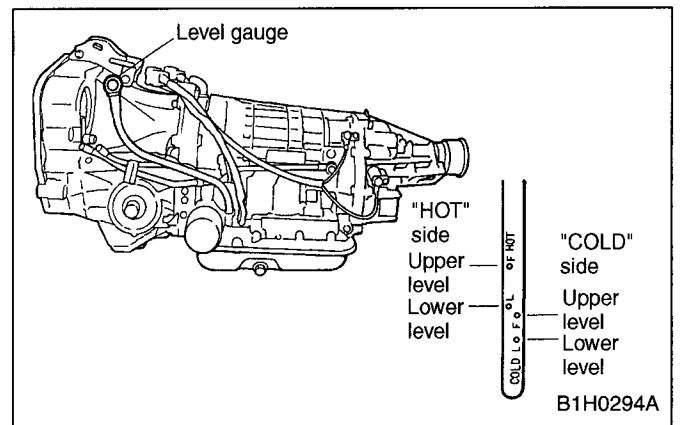
Tightening torque:
25 ± 2 N.m (2.5 ± 0.2 kg-m, 18.1 ± 1.4 ft-lb)

3) Fill ATF up to the middle of the "COLD" side on level gauge by using the gauge hole.

Recommended fluid:
Dexron II or Dexron III type automatic transmission fluid

Fluid capacity:
2200 cc: 8.4 — 8.7 ℓ
(8.9 — 9.2 US qt, 7.4 — 7.7 Imp qt)
2500 cc: 9.3 — 9.6 ℓ
(9.8 — 10.1 US qt, 8.2 — 8.4 Imp qt)

4) Run the vehicle until the ATF temperature rises to 60 to 80°C (140 to 176°F) and check the ATF level of the "HOT" side on level gauge.



17. Steering and Suspension System

MAINTENANCE INTERVAL																	
[Number of months or km (miles), whichever occurs first]																	
Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
California																	
All states except California																	

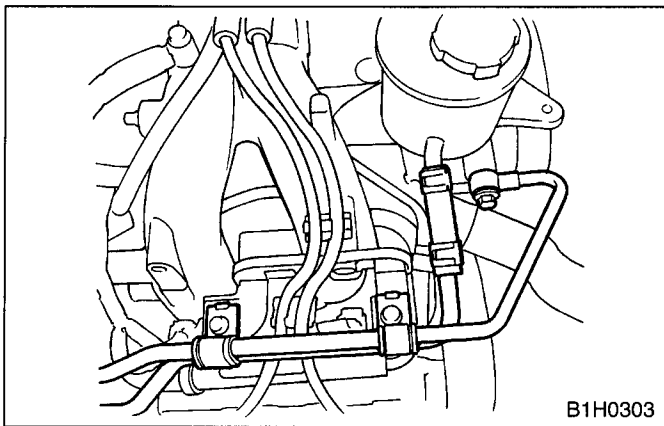
A: INSPECTION

7. HOSES OF OIL PUMP FOR DAMAGES

Check pressure hose and return hose of oil pump for crack, swell or damage. Replace hose with new one if necessary.

NOTE:

Prevent hoses from revolving and/or turning when installing hoses.



B1H0303