

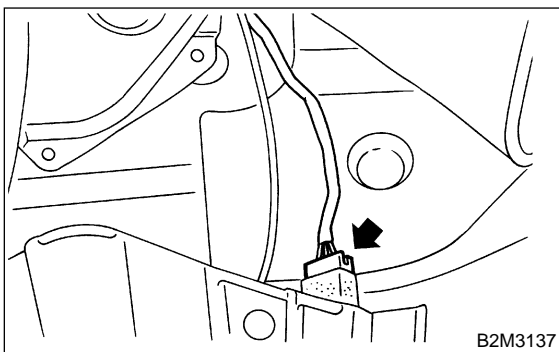
1. Engine

A: GENERAL PRECAUTION

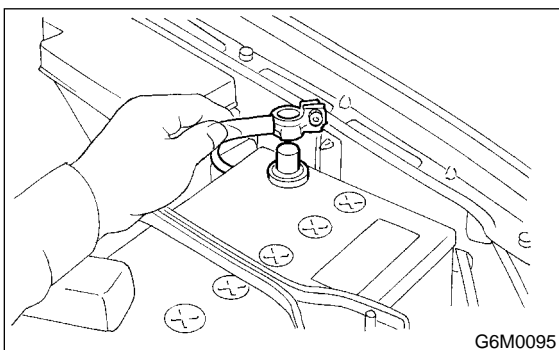
- 1) Remove or install engine in an area where chain hoists, lifting devices, etc. are available for ready use.
- 2) Be sure not to damage coated surfaces of body panels with tools or stain seats and windows with coolant or oil. Place a cover over fenders, as required, for protection.
- 3) Prior to starting work, prepare the following: Service tools, clean cloth, containers to catch coolant and oil, wire ropes, chain hoist, transmission jacks, etc.
- 4) Lift-up or lower the vehicle when necessary. Make sure to support the correct positions. <Ref. to 1-3 [G7B0].>

B: REMOVAL

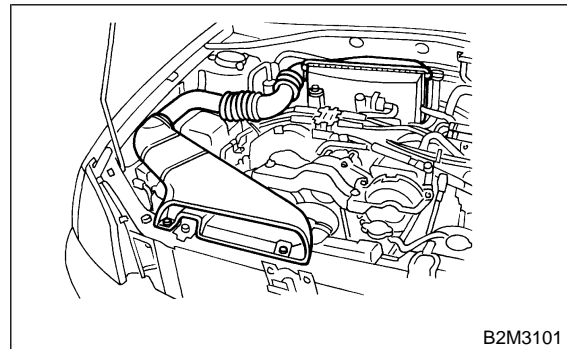
- 1) Set the vehicle on lift arms.
- 2) Open front hood fully and support with stay.
- 3) Raise rear seat, and turn floor mat up.
- 4) Release fuel pressure.
 - (1) Disconnect connector of fuel tank cord from the nearest harness.



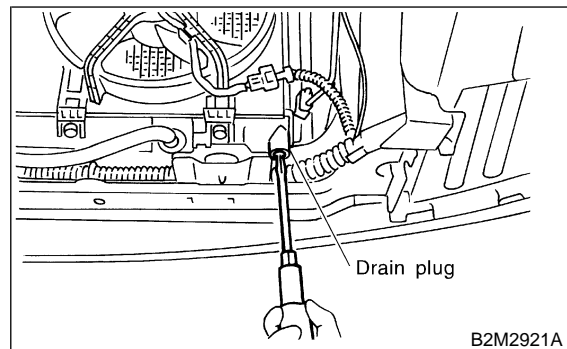
- (2) Start the engine, and run until it stalls.
- (3) After the engine stalls, crank it for five seconds more.
- (4) Turn ignition switch to "OFF".
- 5) Remove filler cap.
- 6) Disconnect battery ground terminal.



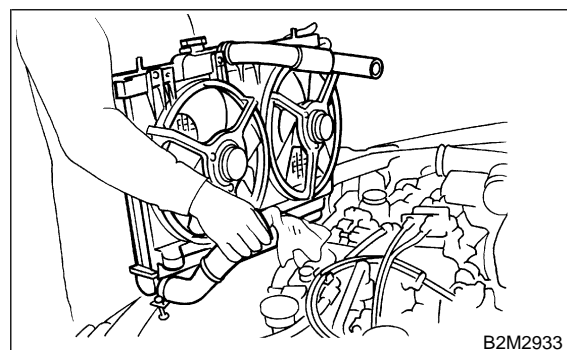
- 7) Remove air intake duct and air cleaner case. <Ref. to 2-7 [W1A0].>



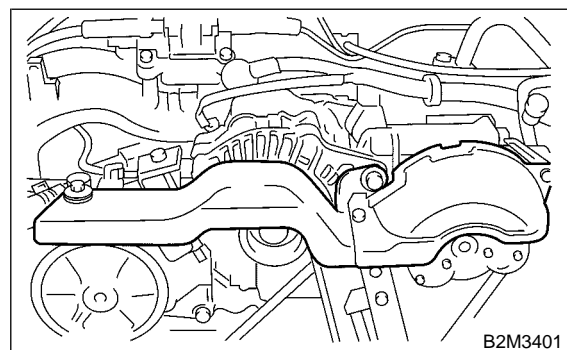
- 8) Remove under cover.
- 9) Drain coolant. Set container under the vehicle, and loose drain cock from radiator. <Ref. to 2-5 [W9A0].>



- 10) Remove radiator from vehicle. <Ref. to 2-5 [W3A0].>



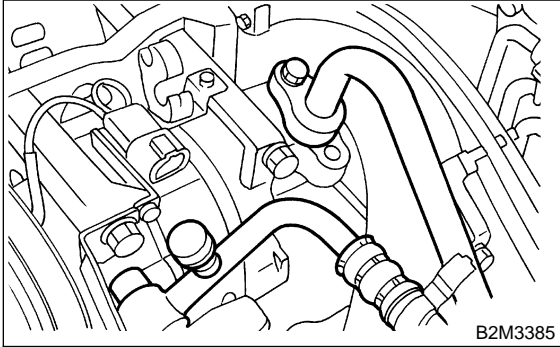
- 11) Remove V-belt cover.



1. Engine

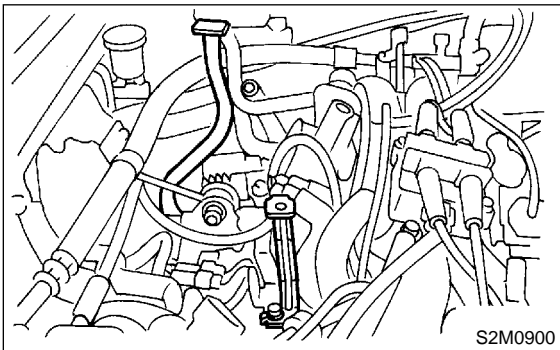
12) Collect refrigerant, and remove pressure hoses. (With A/C)

- (1) Place and connect the attachment hose to the refrigerant recycle system.
- (2) Collect refrigerant from A/C system.
- (3) Disconnect A/C pressure hoses from A/C compressor.

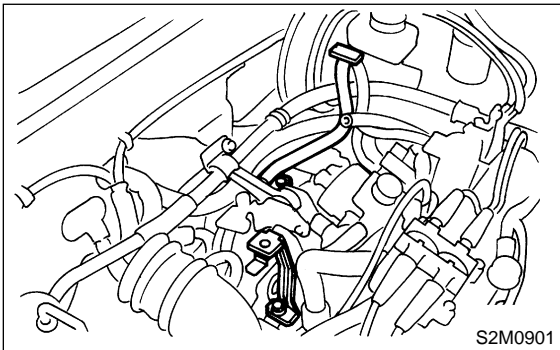


13) Remove air cleaner case stay.

● MT model

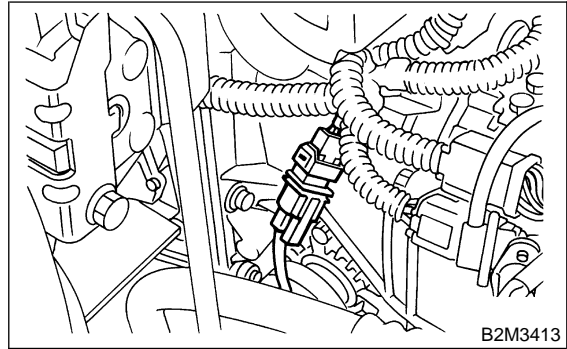


● AT model

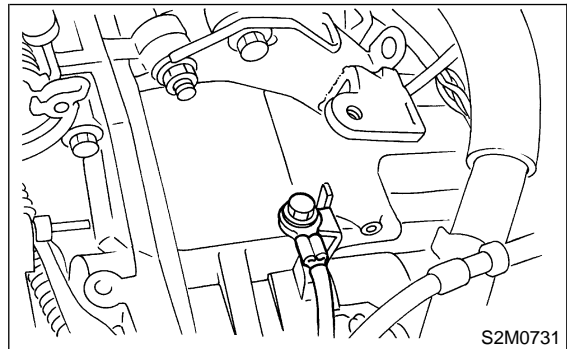


14) Disconnect the following connectors and cables.

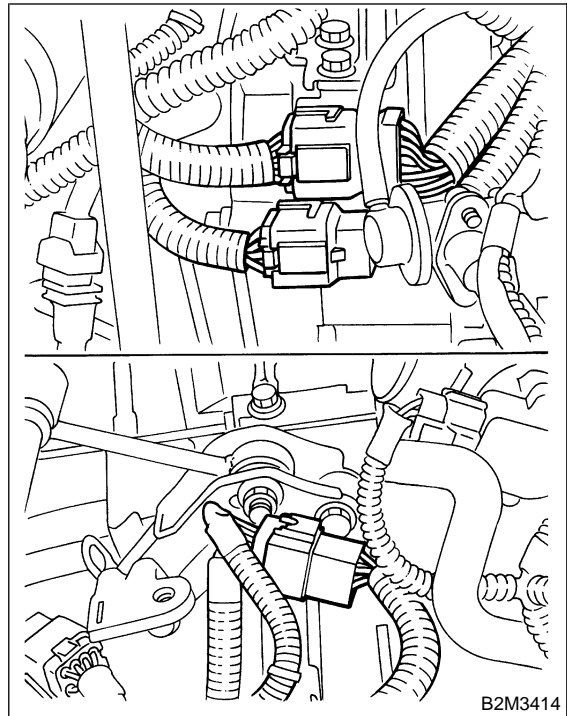
- (1) Front oxygen sensor connector



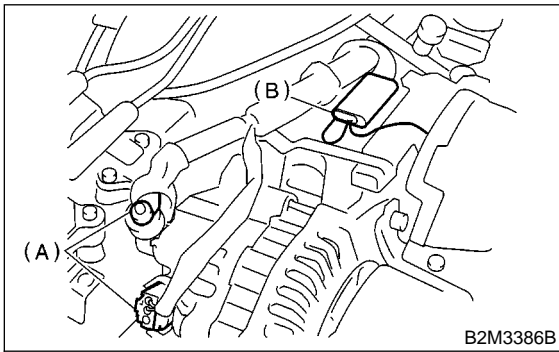
- (2) Engine ground terminal



- (3) Engine harness connectors

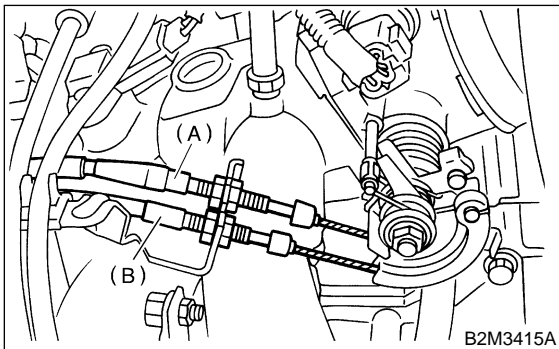


- (4) Alternator connector, terminal and A/C compressor connector



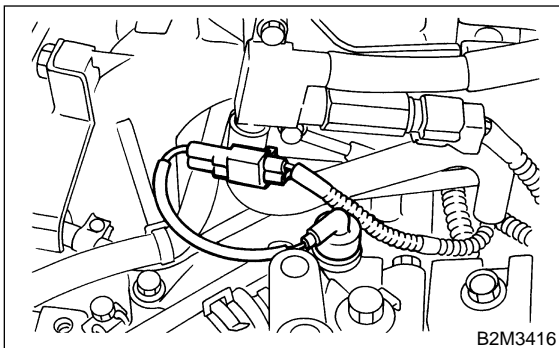
- (A) A/C compressor connector
(B) Alternator connector and terminal

- (5) Accelerator cable and cruise control cable

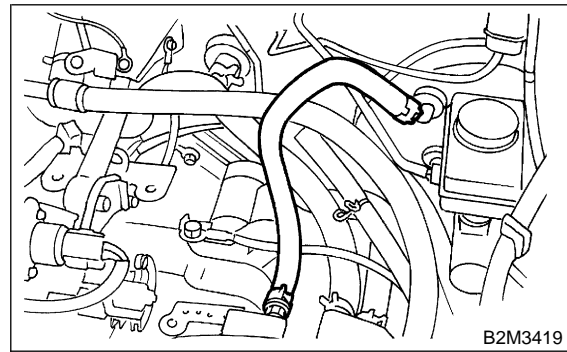


- (A) Accelerator cable
(B) Cruise control cable

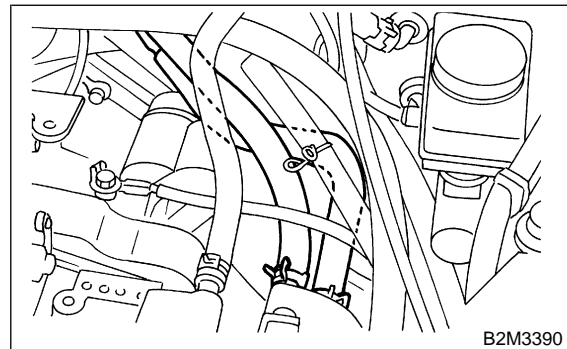
- (6) Pressure switch



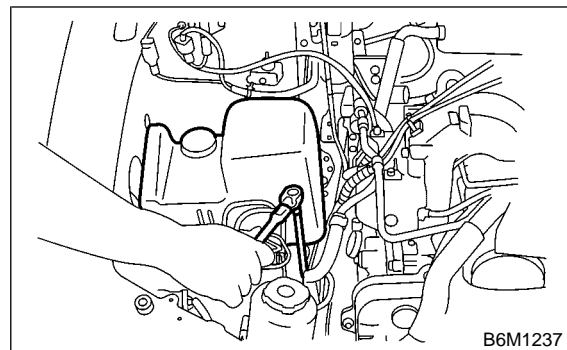
- 15) Disconnect the following hoses.
(1) Brake booster vacuum hose



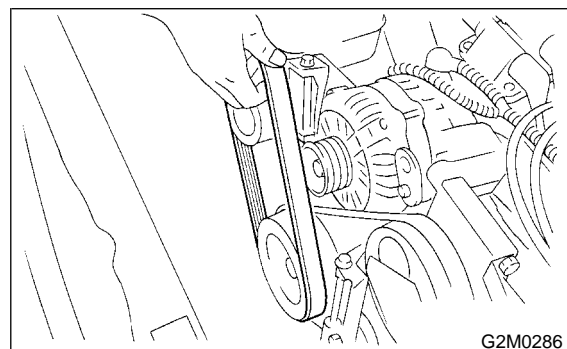
- (2) Heater inlet outlet hose



- 16) Remove power steering pump from bracket.
(1) Remove resonator chamber.

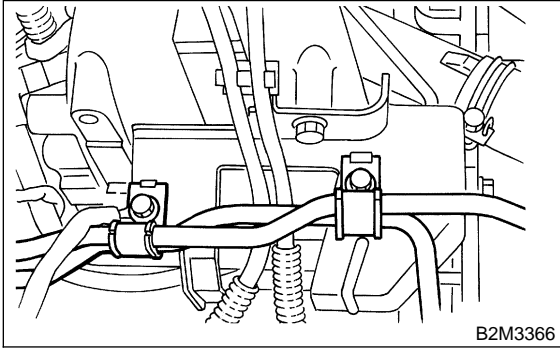


- (2) Loosen lock bolt and slider bolt, and remove front side V-belt.

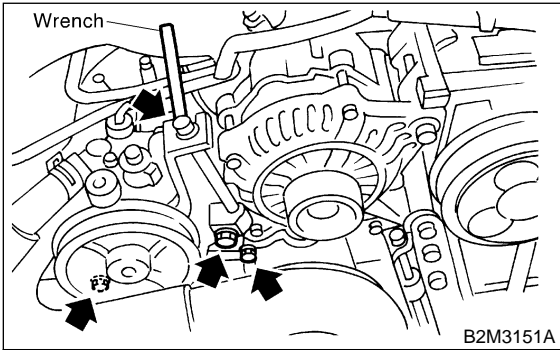


1. Engine

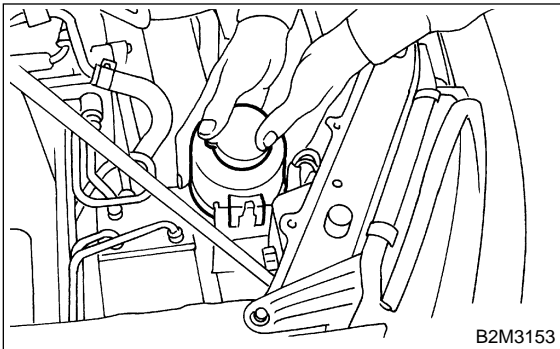
(3) Remove pipe with bracket.



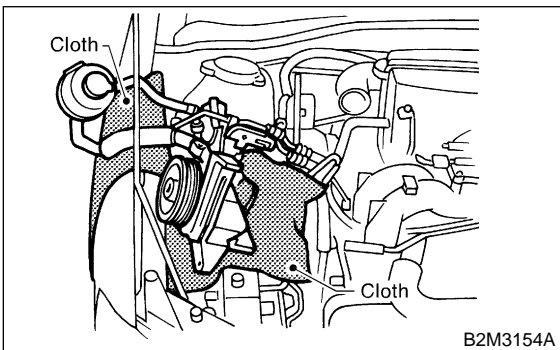
(4) Remove bolts which install power steering pump bracket.



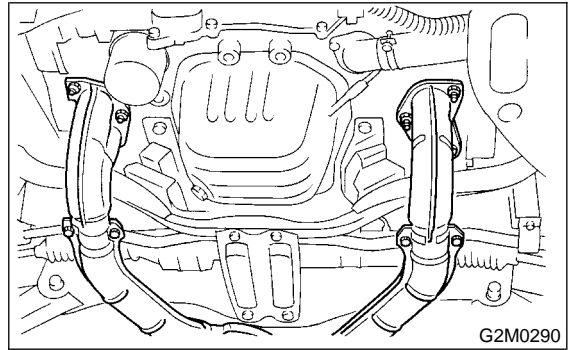
(5) Remove power steering tank from the bracket by pulling it upward.



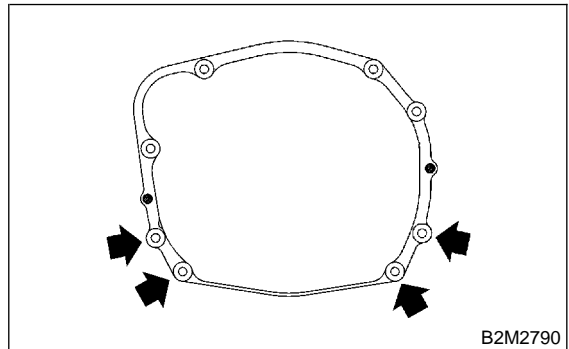
(6) Place power steering pump on the right side wheel apron.



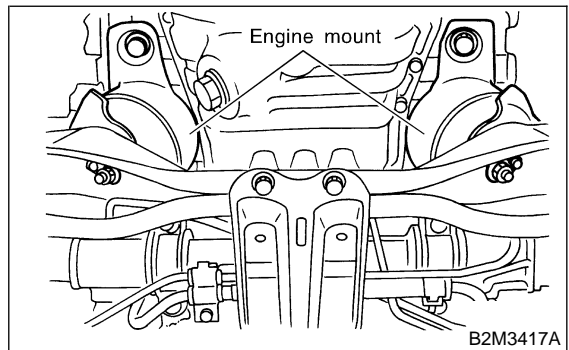
17) Remove front and center exhaust pipe. <Ref. to 2-9 [W1A0].>



18) Remove nuts which hold lower side of transmission to engine.



19) Remove nuts which install front cushion rubber onto front crossmember.



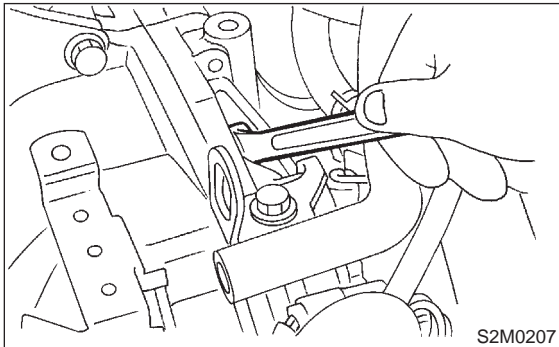
20) Separate torque converter clutch from drive plate. (AT model)

- (1) Lower the vehicle.
- (2) Remove service hole plug.

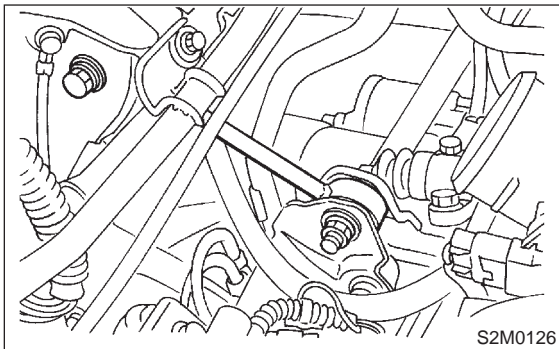
(3) Remove bolts which hold torque converter clutch to drive plate.

(4) Remove other bolts while rotating the engine using ST.

ST 499977000 CRANK PULLEY WRENCH



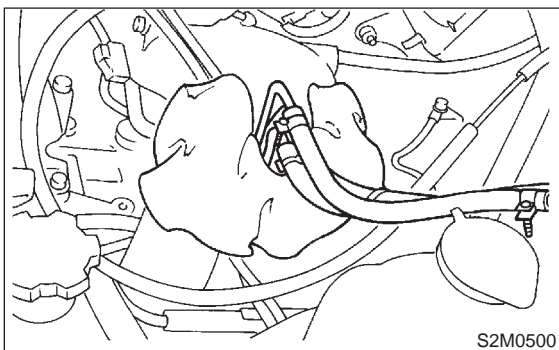
21) Remove pitching stopper.



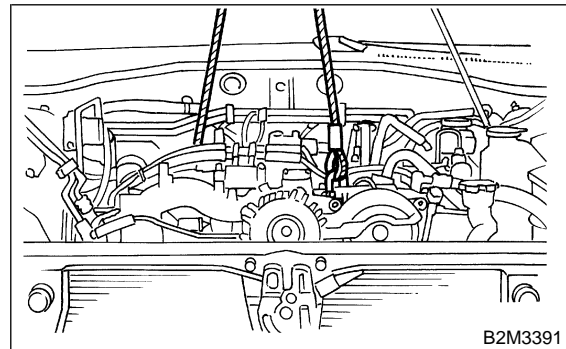
22) Disconnect fuel delivery hose, return hose and evaporation hose.

CAUTION:

- Disconnect hose with its end wrapped with cloth to prevent fuel from splashing.
- Catch fuel from hose into container.



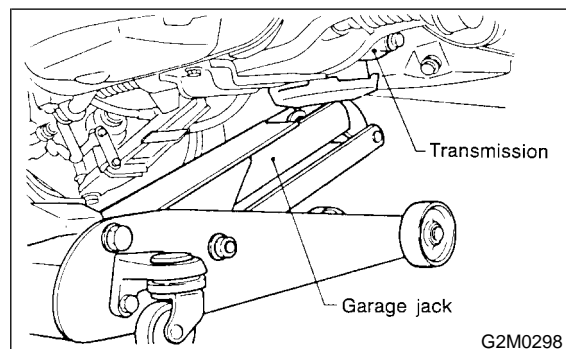
23) Support engine with a lifting device and wire ropes.



24) Support transmission with a garage jack.

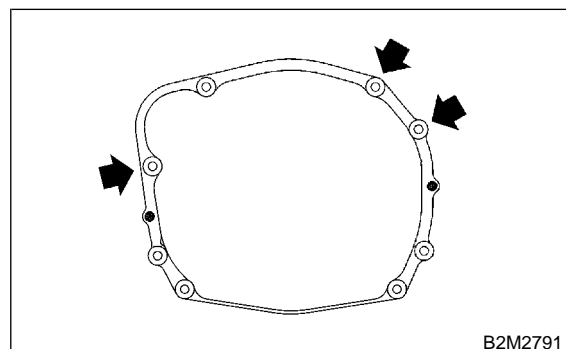
CAUTION:

Before moving engine away from transmission, check to be sure no work has been overlooked. Doing this is very important in order to facilitate re-installation and because transmission lowers under its own weight.



25) Separation of engine and transmission.

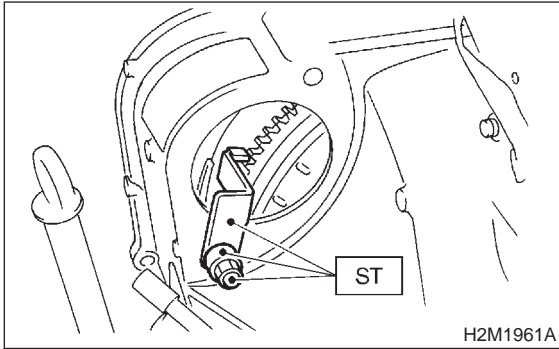
- (1) Remove starter. <Ref. to 6-1 [W1A0].>
- (2) Remove bolts which hold upper side of transmission to engine.



1. Engine

26) Install ST to torque converter clutch case. (AT model)

ST 498277200 STOPPER SET

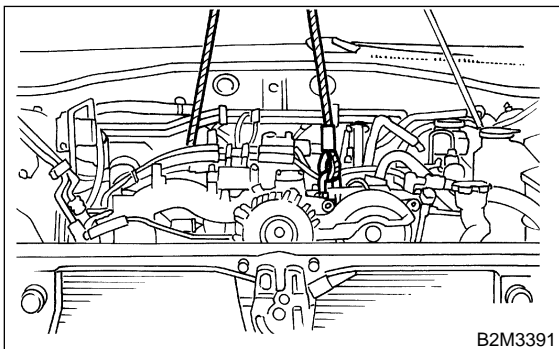


27) Remove engine from vehicle.

- (1) Slightly raise engine.
- (2) Raise transmission with garage jack.
- (3) Move engine horizontally until main shaft is withdrawn from clutch cover.
- (4) Slowly move engine away from engine compartment.

CAUTION:

Be careful not to damage adjacent parts or body panels with crank pulley, oil pressure gauge, etc.



28) Remove front cushion rubbers.

C: INSTALLATION

1) Install front cushion rubbers.

Tightening torque:

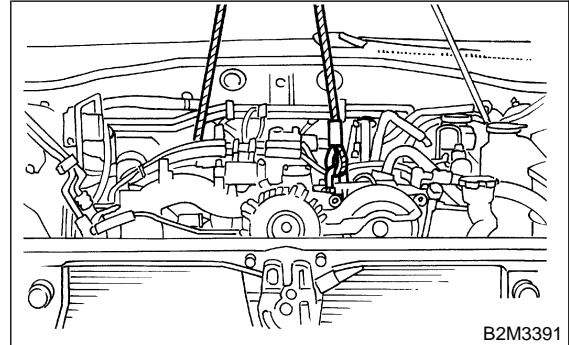
$34 \pm 5 \text{ N}\cdot\text{m}$ ($3.5 \pm 0.5 \text{ kg}\cdot\text{m}$, $25.3 \pm 3.6 \text{ ft}\cdot\text{lb}$)

2) Install engine onto transmission.

(1) Position engine in engine compartment and align it with transmission.

CAUTION:

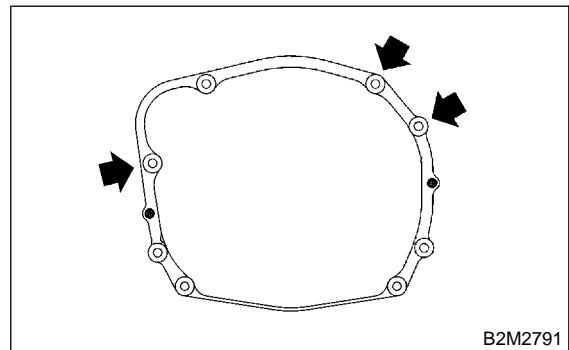
Be careful not to damage adjacent parts or body panels with crank pulley, oil pressure gauge, etc.



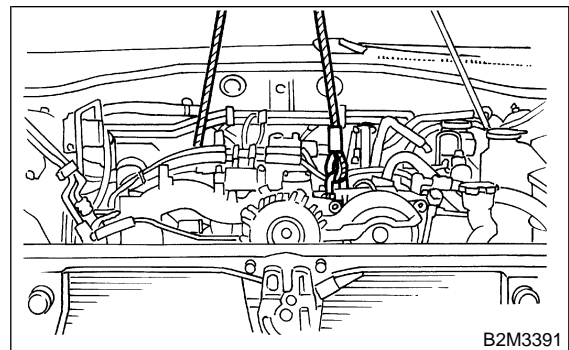
- (2) Apply a small amount of grease to spline of main shaft. (MT model)
- 3) Tighten bolts which hold upper side of transmission to engine.

Tightening torque:

$50 \pm 4 \text{ N}\cdot\text{m}$ ($5.1 \pm 0.4 \text{ kg}\cdot\text{m}$, $36.9 \pm 2.9 \text{ ft}\cdot\text{lb}$)



4) Remove lifting device and wire ropes.



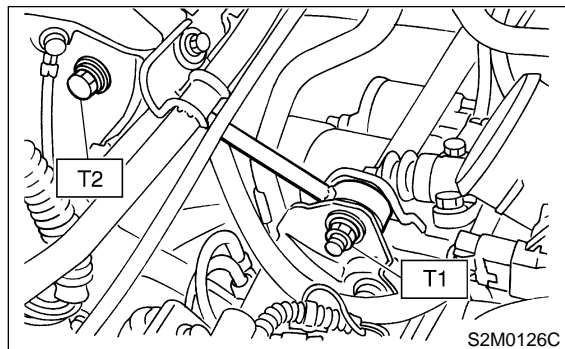
5) Remove garage jack.

6) Install pitching stopper.

Tightening torque:

T1: 49 ± 5 N-m (5.0 ± 0.5 kg-m, 36.2 ± 3.6 ft-lb)

T2: 57 ± 10 N-m (5.8 ± 1.0 kg-m, 42 ± 7 ft-lb)



7) Remove ST from torque converter clutch case. (AT model)

NOTE:

Be careful not to drop the ST into the torque converter clutch case when removing ST.

ST 498277200 STOPPER SET

8) Install starter. <Ref. to 6-1 [W1A0].>

9) Install torque converter clutch onto drive plate. (AT model)

(1) Tighten bolts which hold torque converter clutch to drive plate.

(2) Tighten other bolts while rotating the engine by using ST.

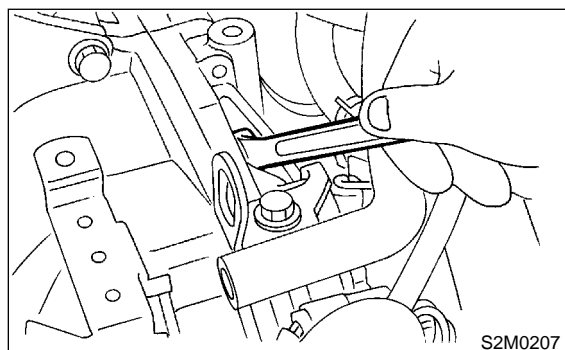
CAUTION:

Be careful not to drop bolts into torque converter clutch housing.

ST 499977000 CRANK PULLEY WRENCH

Tightening torque:

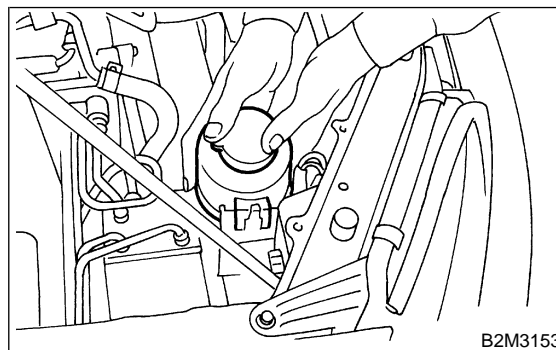
25 ± 2 N-m (2.5 ± 0.2 kg-m, 18.1 ± 1.4 ft-lb)



(3) Clog plug onto service hole.

10) Install power steering pump on bracket.

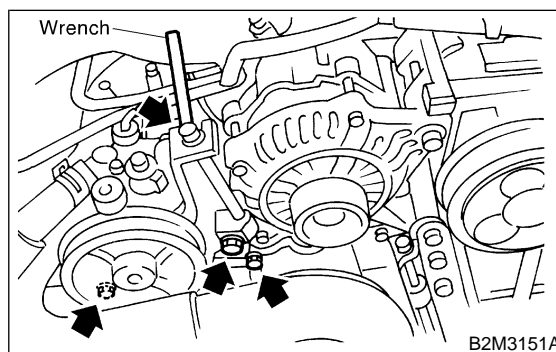
(1) Install power steering tank on bracket.



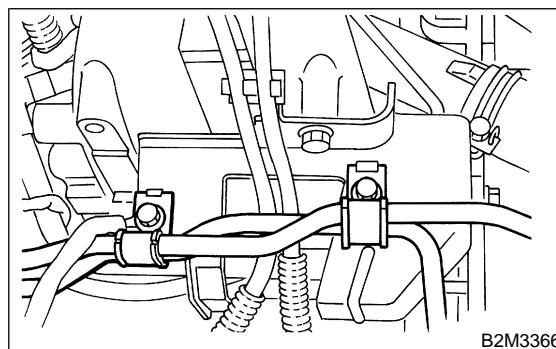
(2) Install power steering pump on bracket, and tighten bolts.

Tightening torque:

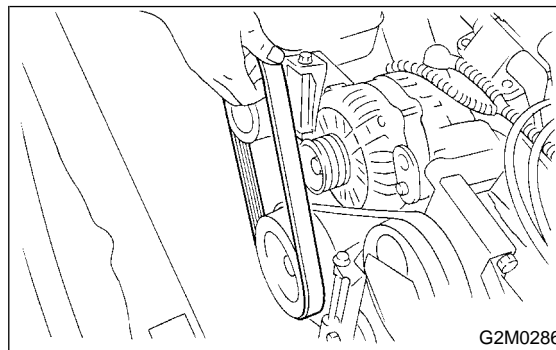
20.1 ± 2.5 N-m (2.05 ± 0.25 kg-m, 14.8 ± 1.8 ft-lb)



(3) Tighten bolt which installs power steering pump bracket, and install spark plug codes.



(4) Intake front side V-belt, and adjust it.

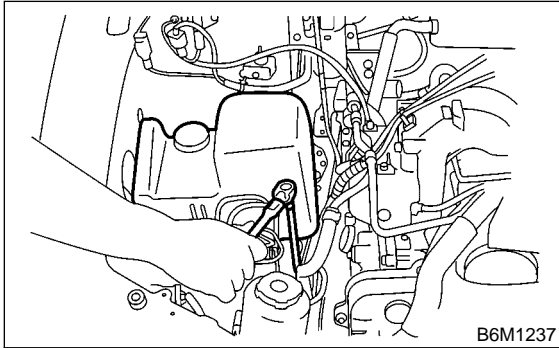


1. Engine

(5) Install resonator chamber.

Tightening torque:

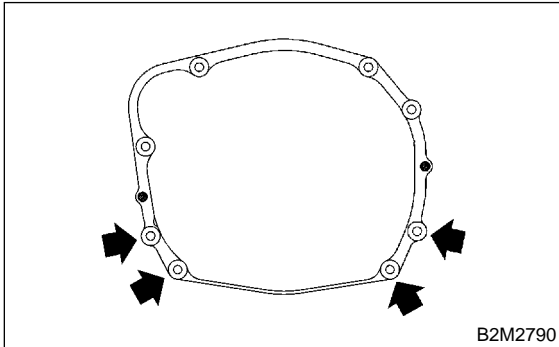
$33\pm 10\text{ N}\cdot\text{m}$ ($3.4\pm 1.0\text{ kg}\cdot\text{m}$, $24.6\pm 7.2\text{ ft}\cdot\text{lb}$)



11) Tighten nuts which hold lower side of transmission to engine.

Tightening torque:

$50\pm 4\text{ N}\cdot\text{m}$ ($5.1\pm 0.4\text{ kg}\cdot\text{m}$, $36.9\pm 2.9\text{ ft}\cdot\text{lb}$)



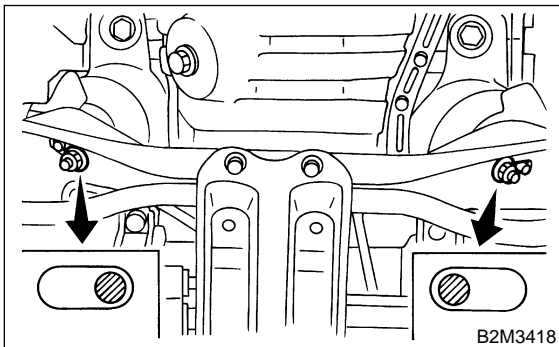
12) Tighten nuts which install front cushion rubber onto crossmember.

Tightening torque:

$83\pm 15\text{ N}\cdot\text{m}$ ($8.5\pm 1.5\text{ kg}\cdot\text{m}$, $61\pm 11\text{ ft}\cdot\text{lb}$)

CAUTION:

Be sure to tighten front cushion rubber mounting bolts in the innermost elliptical hole in the front crossmember.



13) Install front and center exhaust pipe.

<Ref. to 2-9 [W1B0].>

14) Connect the following hoses.

- (1) Fuel delivery hose, return hose and evaporation hose

- (2) Heater inlet and outlet hoses
 - (3) Brake booster vacuum hose
- 15) Connect the following connectors.
- (1) Engine ground terminals

Tightening torque:

$14\pm 4\text{ N}\cdot\text{m}$ ($1.4\pm 0.4\text{ kg}\cdot\text{m}$, $10.1\pm 2.9\text{ ft}\cdot\text{lb}$)

- (2) Engine harness connectors
 - (3) Oxygen sensor connector (Except general model)
 - (4) Alternator connector and terminal
 - (5) A/C compressor connectors (With A/C)
 - (6) Power steering pressure switch
- 16) Connect the following cables.
- (1) Accelerator cable
 - (2) Cruise control cables (With cruise control)

CAUTION:

After connecting each cable, adjust them.

17) Install air cleaner case stay.

Tightening torque:

$16\pm 5\text{ N}\cdot\text{m}$ ($1.6\pm 0.5\text{ kg}\cdot\text{m}$, $11.6\pm 3.6\text{ ft}\cdot\text{lb}$)

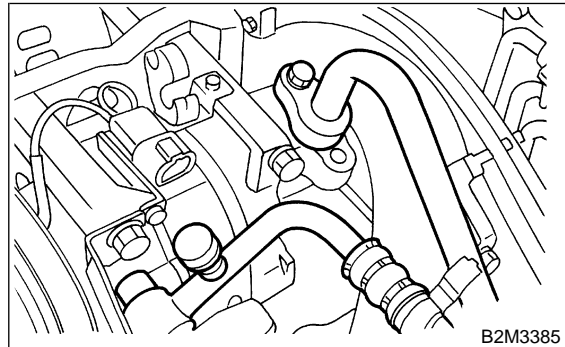
18) Install A/C pressure hoses. (With A/C)
<Ref. to 4-7 [W1C0].>

CAUTION:

Use new O-rings.

Tightening torque:

$25\pm 7\text{ N}\cdot\text{m}$ ($2.5\pm 0.7\text{ kg}\cdot\text{m}$, $18.1\pm 5.1\text{ ft}\cdot\text{lb}$)



19) Install radiator to vehicle. <Ref. to 2-5 [W3B0].>

20) Install V-belt cover.

