## **E: INSTALLATION**

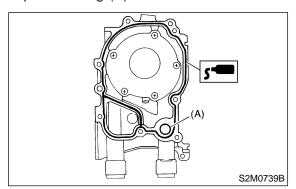
Install in the reverse order of removal. Observe the following:

1) Apply fluid packing to matching surfaces of oil pump.

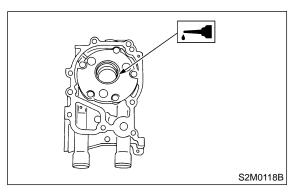
## Fluid packing:

# THREE BOND 1215 or equivalent

2) Replace O-ring (A) with a new one.



3) Apply a coat of engine oil to the inside of the oil seal.



- 4) Be careful not to scratch oil seal when installing oil pump on cylinder block.
- 5) Position the oil pump, aligning the notched area with the crankshaft, and push the oil pump straight.

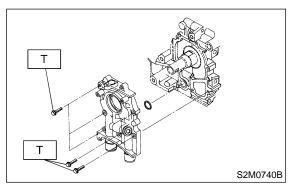
#### **CAUTION:**

## Make sure the oil seal lip is not folded.

6) Install oil pump.

## Tightening torque:

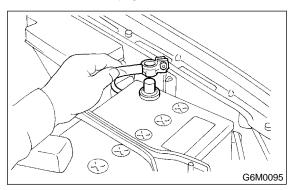
T: 6.4 N-m (0.65 kg-m, 4.7 ft-lb)



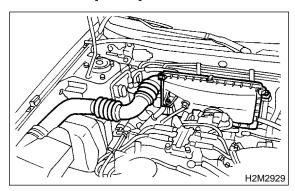
# 2. Oil Pan and Oil Strainer

## A: REMOVAL

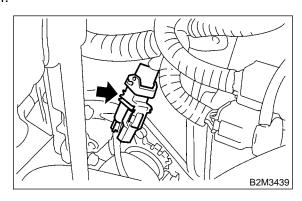
- 1) Set the vehicle on the lift.
- 2) Disconnect battery ground cable.



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

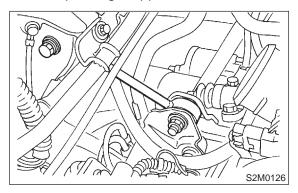


4) Disconnect front oxygen (A/F) sensor connector.

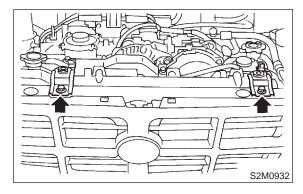


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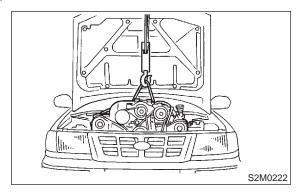
5) Remove pitching stopper.



6) Remove radiator upper bracket.



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



8) Lift-up the vehicle.

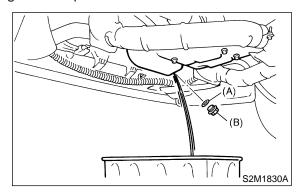
## **CAUTION:**

At this time, raise up wire ropes.

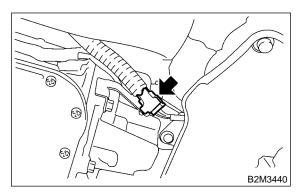
9) Remove under cover.

10) Drain engine oil.

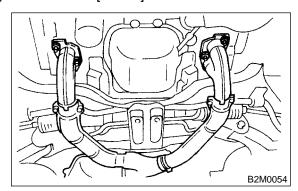
Set container under the vehicle, and remove drain plug from oil pan.



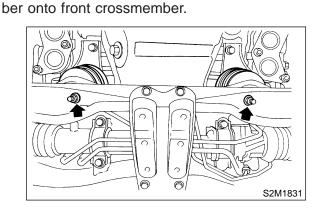
- (A) Washer
- (B) Drain plug
- 11) Disconnect connector from rear oxygen sensor.



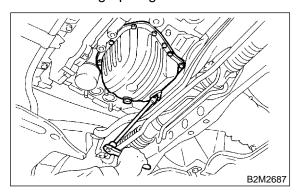
12) Remove front and center exhaust pipe assembly. <Ref. to 2-9 [W1A0].>



13) Remove nuts which install front cushion rub-



14) Remove bolts which install oil pan on cylinder block while raising up engine.

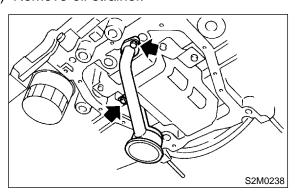


15) Insert oil pan cutter blade between cylinder block-to-oil pan clearance.

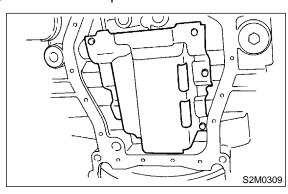
# **CAUTION:**

Do not use a screwdriver or similar tool in place of oil pan cutter.

16) Remove oil strainer.



17) Remove baffle plate.



## **B: INSPECTION**

By visual check make sure oil pan, oil strainer and baffle plate are not damaged.

# C: INSTALLATION

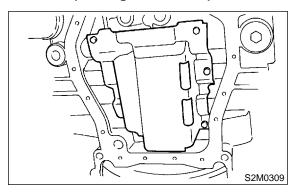
#### **CAUTION:**

Before installing oil pan, clean sealant from oil pan and engine block.

1) Install baffle plate.

Tightening torque:

6.4 N-m (0.65 kg-m, 4.7 ft-lb)



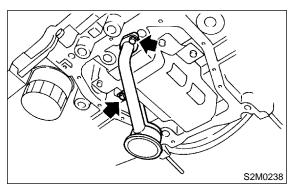
2) Install oil strainer onto baffle plate.

### **CAUTION:**

Replace O-ring with a new one.

Tightening torque:

10 N-m (1.0 kg-m, 7 ft-lb)

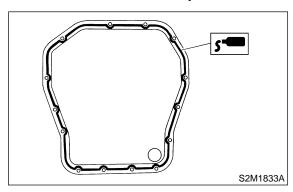


# **SERVICE PROCEDURE**

3) Apply fluid packing to mating surfaces and install oil pan.

## Fluid packing:

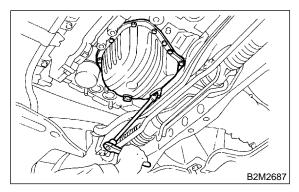
THREE BOND 1215 or equivalent



4) Tighten bolts which install oil pan onto engine block.

# Tightening torque:

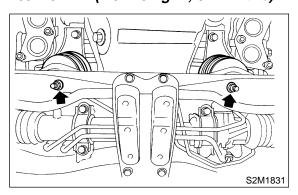
5 N-m (0.5 kg-m, 3.6 ft-lb)



- 5) Lower engine onto front crossmember.
- 6) Tighten nuts which install front cushion rubber onto front crossmember.

## Tightening torque:

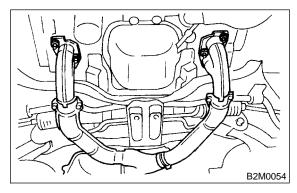
69±15 N·m (7.0±1.5 kg-m, 51±11 ft-lb)



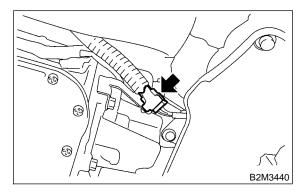
7) Install front and center exhaust pipe assembly. <Ref. to 2-9 [W1A0].>

#### **CAUTION:**

Always use new gaskets.



8) Connect connector to rear oxygen sensor.

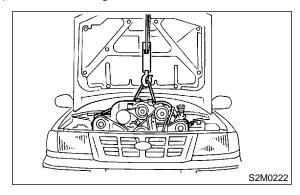


- 9) Install under cover.
- 10) Lower the vehicle.

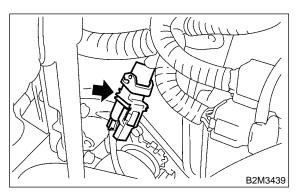
## **CAUTION:**

At this time, lower lifting device and release steel cables.

11) Remove lifting device and steel cables.



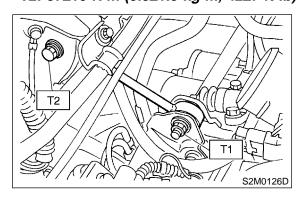
12) Connect connector to front oxygen (A/F) sensor.



13) Install pitching stopper.

## Tightening torque:

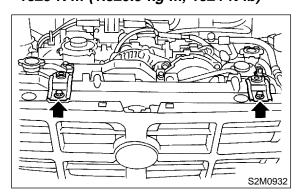
T1: 49±5 N·m (5.0±0.5 kg-m, 36.2±3.6 ft-lb) T2: 57±10 N·m (5.8±1.0 kg-m, 42±7 ft-lb)



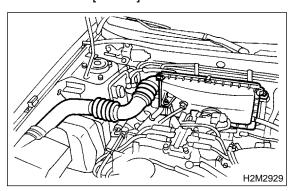
14) Install radiator upper brackets.

## Tightening torque:

18±5 N·m (1.8±0.5 kg-m, 13±4 ft-lb)



15) Install air intake duct and air cleaner assembly. <Ref. to 2-7 [W1A0].>



16) Fill engine oil through filler pipe up to upper point of level gauge. <Ref. to 1-5 [G4A0].>