

INTAKE (INDUCTION)

IN(DOHC TURBO)

	Page
1. General Description	2
2. Air Cleaner	7
3. Air Intake Duct.....	8
4. Intake Duct	9
5. Intercooler	10
6. Turbocharger.....	12
7. Air By-pass Valve.....	14

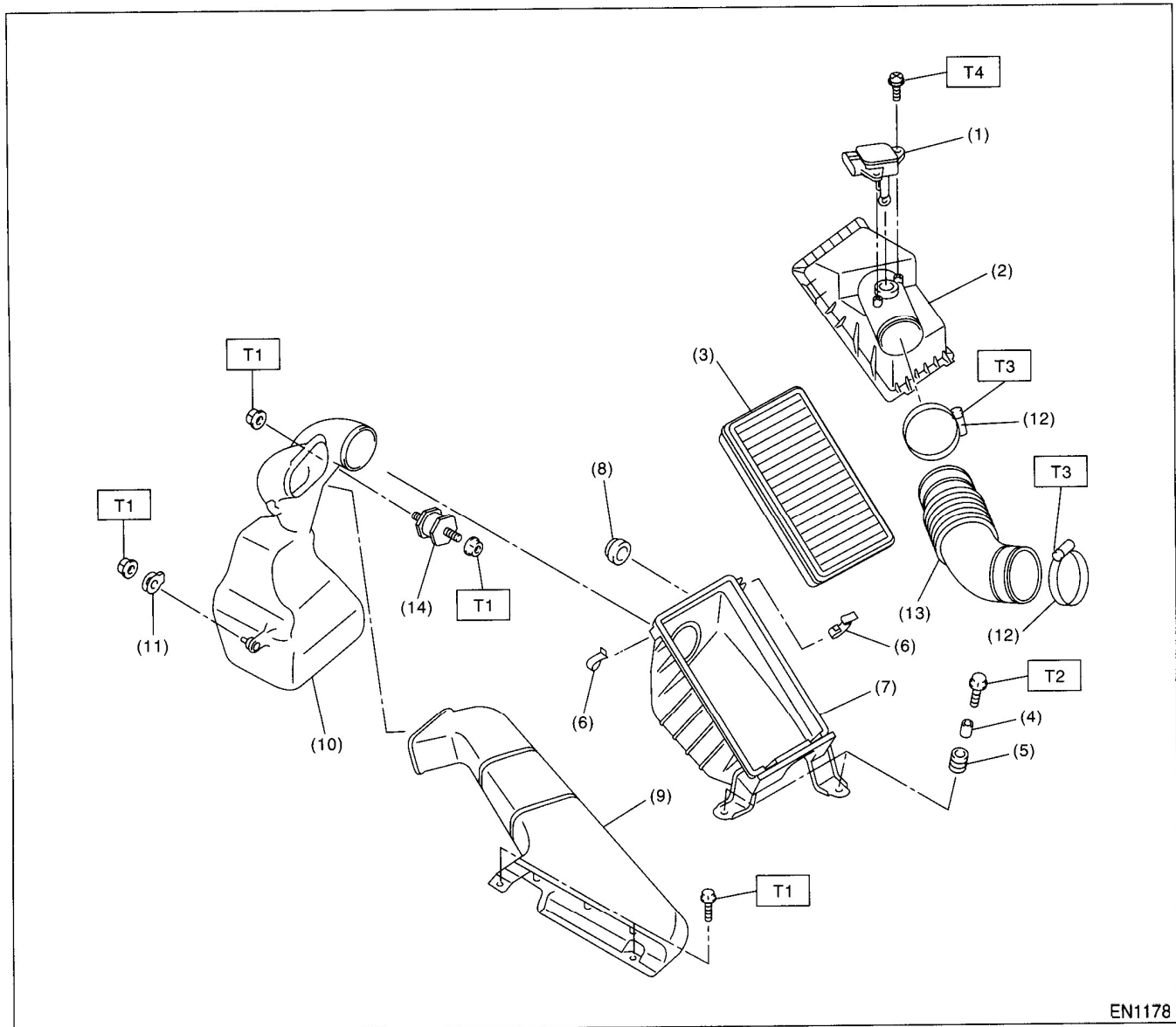
GENERAL DESCRIPTION

INTAKE (INDUCTION)

1. General Description

A: COMPONENT

1. AIR CLEANER



EN1178

- | | |
|-----------------------------|-----------------------------|
| (1) Mass air flow sensor | (8) Cushion rubber |
| (2) Air cleaner upper cover | (9) Air intake duct |
| (3) Air cleaner element | (10) Resonator chamber ASSY |
| (4) Spacer | (11) Cushion rubber |
| (5) Bush | (12) Clamp |
| (6) Clip | (13) Air intake boot |
| (7) Air cleaner lower case | (14) Cushion |

Tightening torque: N·m (kgf-m, ft-lb)

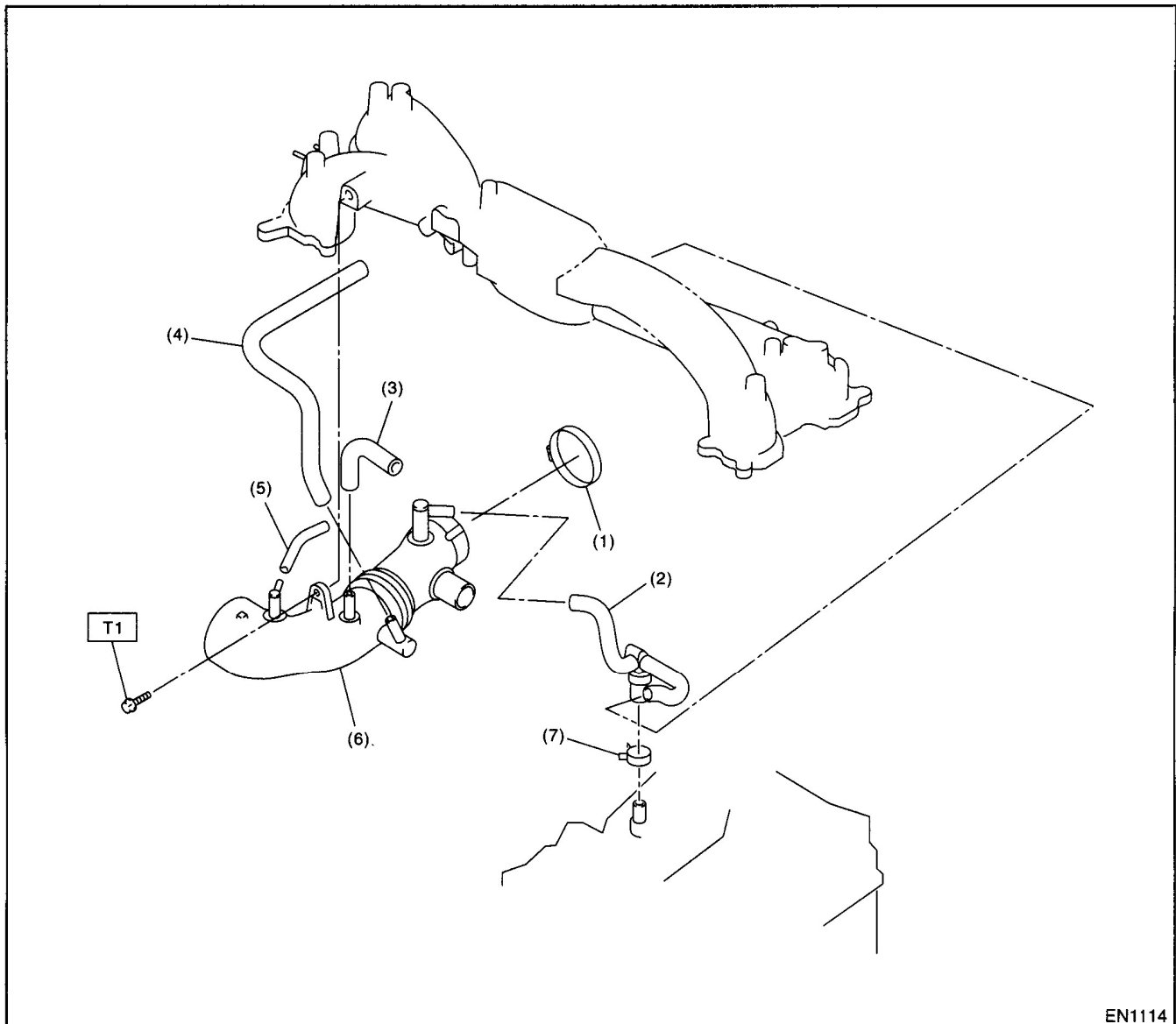
T1: 7.5 (0.76, 5.5)

T2: 33 (3.4, 25)

T3: 2.5 (0.25, 1.8)

T4: 1.7 (0.17, 1.2)

2. INTAKE DUCT



- | | |
|------------------------|------------------------|
| (1) Clamp | (5) Air by-pass hose D |
| (2) PCV hose ASSY | (6) Intake duct |
| (3) Air by-pass hose B | (7) Clamp |
| (4) Air by-pass hose C | |

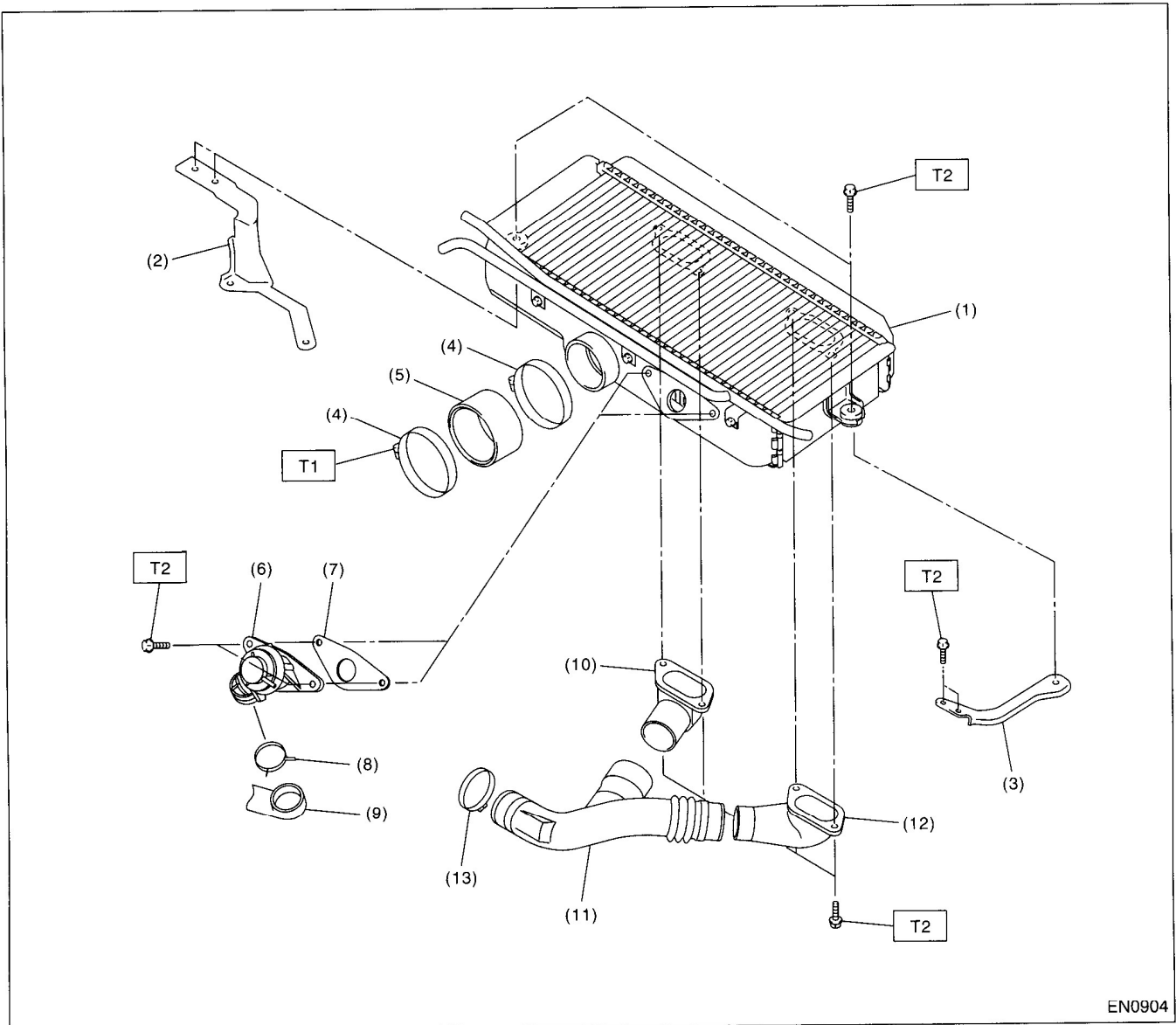
Tightening torque: N·m (kgf-m, ft-lb)

T1: 16 (1.6, 11.7)

GENERAL DESCRIPTION

INTAKE (INDUCTION)

3. INTERCOOLER



EN0904

- | | |
|----------------------------|-------------------------|
| (1) Intercooler | (7) Gasket |
| (2) Intercooler bracket RH | (8) Clamp |
| (3) Intercooler bracket LH | (9) Air by-pass hose A |
| (4) Clamp | (10) Intercooler duct A |
| (5) Air intake duct | (11) Intercooler duct B |
| (6) Air by-pass valve | (12) Intercooler duct C |

- (13) Clamp

Tightening torque: N·m (kgf-m, ft-lb)

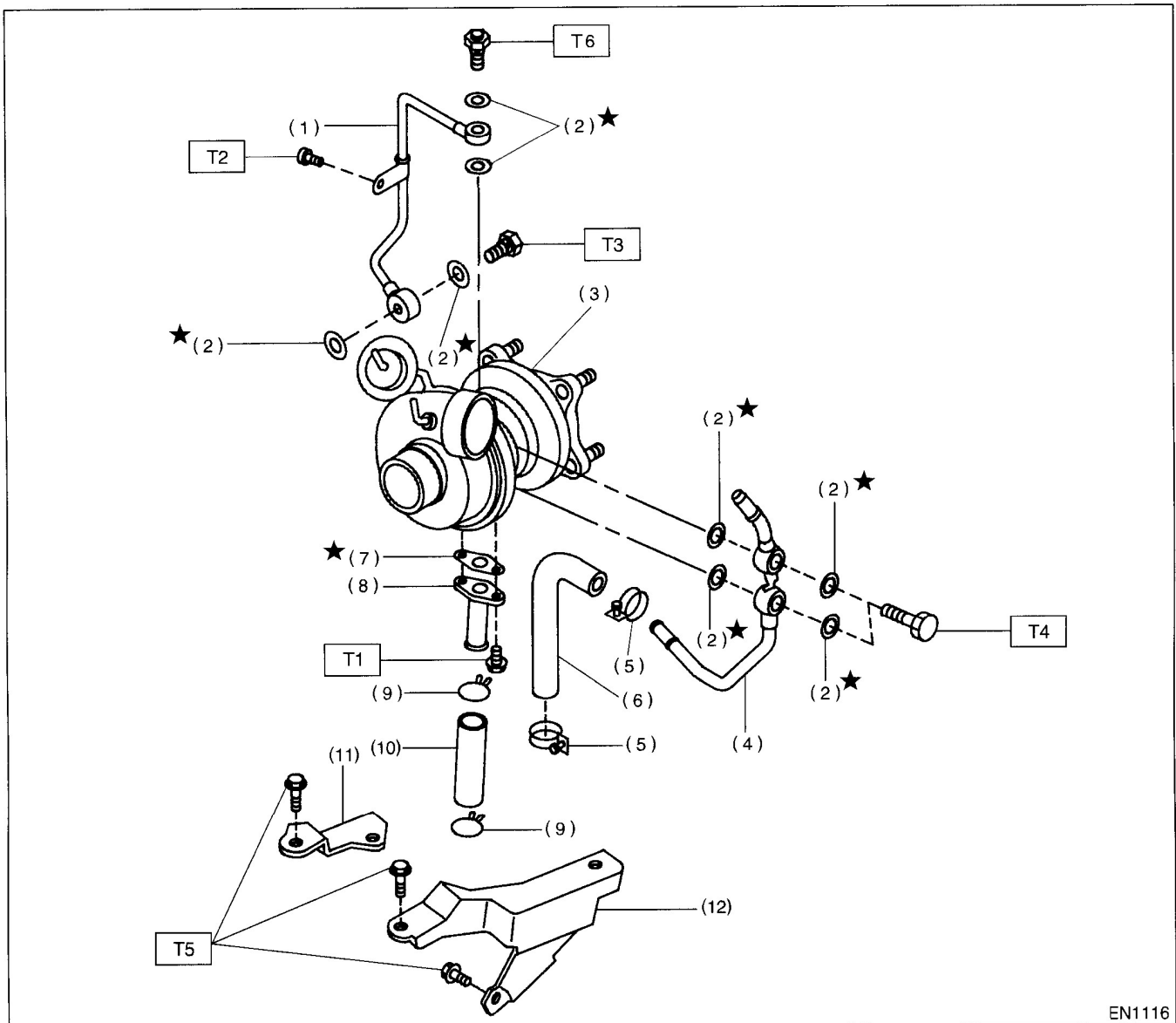
T1: 3 (0.22, 1.6)

T2: 16 (1.6, 11.7)

GENERAL DESCRIPTION

INTAKE (INDUCTION)

4. TURBOCHARGER



EN1116

- | | |
|-------------------------|------------------------------|
| (1) Oil inlet pipe | (8) Oil outlet pipe |
| (2) Metal gasket | (9) Clip |
| (3) Turbocharger | (10) Oil outlet hose |
| (4) Water pipe | (11) Turbocharger bracket RH |
| (5) Clamp | (12) Turbocharger bracket LH |
| (6) Engine coolant hose | |
| (7) Gasket | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 4.4 (0.45, 3.3)

T2: 4.9 (0.50, 3.6)

T3: 29 (3.0, 21.7)

T4: 30 (3.1, 22.4)

T5: 33 (3.4, 24.6)

T6: 16 (1.6, 11.7)

IN(DOHC TURBO)-5

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GENERAL DESCRIPTION

INTAKE (INDUCTION)

B: CAUTION

- Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust or dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly, and replacement.
- Be careful not to burn your hands, because each part on the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or safety stands at the specified points.
- Before disconnecting electrical connectors of sensor or units, be sure to disconnect negative terminal from battery.

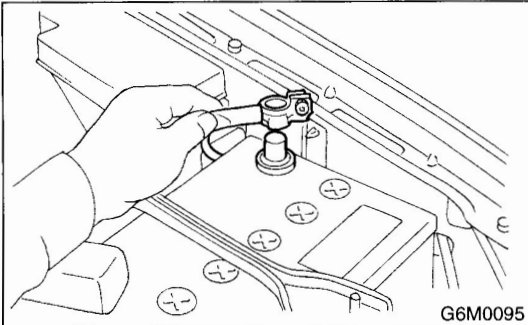
AIR CLEANER

INTAKE (INDUCTION)

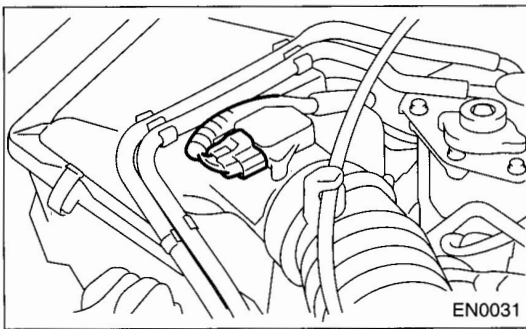
2. Air Cleaner

A: REMOVAL

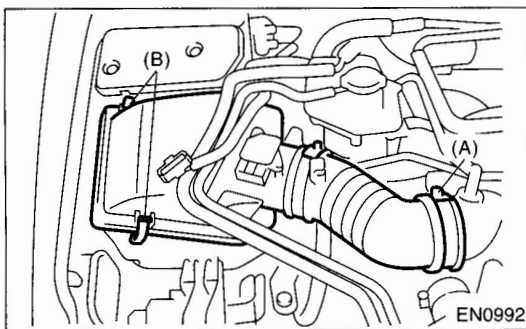
- 1) Disconnect the ground terminal from battery.



- 2) Disconnect the connector from mass air flow sensor.

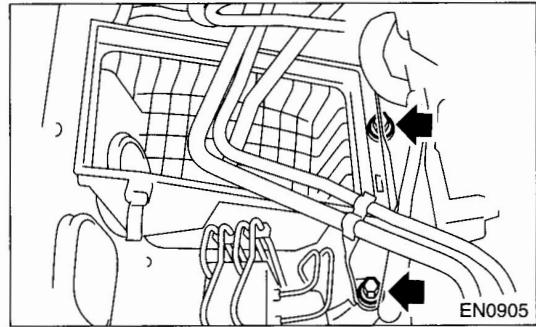


- 3) Loosen the clamp (A) which connects air intake boot to intake duct.
4) Remove the two clips (B) from air cleaner upper cover.



- 5) Remove the air cleaner upper cover.
6) Remove the air cleaner element.

- 7) Remove the air cleaner lower case.

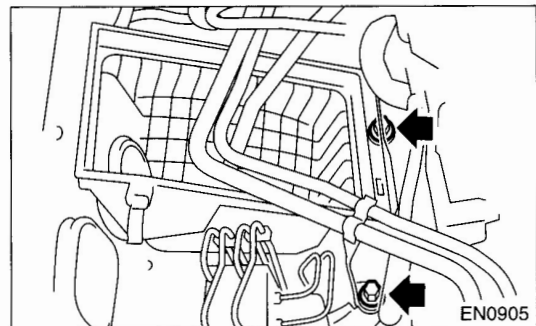


B: INSTALLATION

Install in the reverse order of removal.

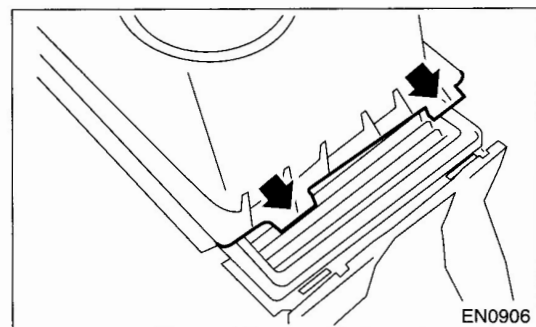
Tightening torque:

33 N·m (3.4 kgf-m, 25 ft-lb)



CAUTION:

Before installing the air cleaner upper cover, align holes with protruding portions of air cleaner lower case, then secure the upper cover to lower case.



C: INSPECTION

Replace if excessively damaged or dirty.

IN(DOHC TURBO)-7

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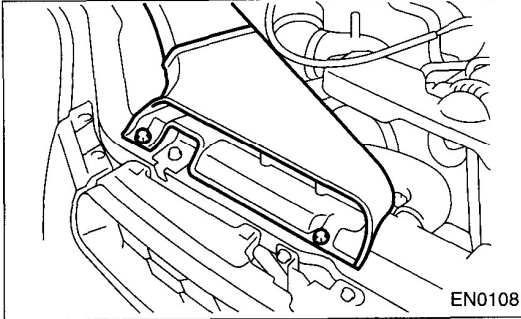
AIR INTAKE DUCT

INTAKE (INDUCTION)

3. Air Intake Duct

A: REMOVAL

1) Remove the bolts which install air intake duct on the front side of body.



B: INSTALLATION

Install in the reverse order of removal.

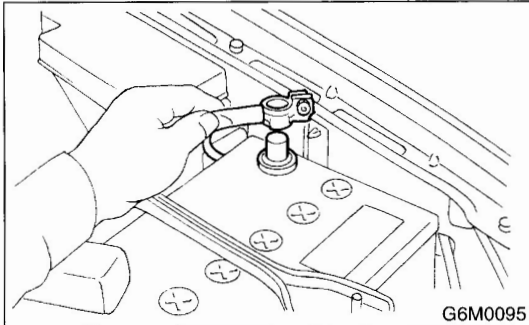
C: INSPECTION

1) Inspect for cracks and loose connections.
2) Inspect that no foreign objects are mixed in the air intake duct.

4. Intake Duct

A: REMOVAL

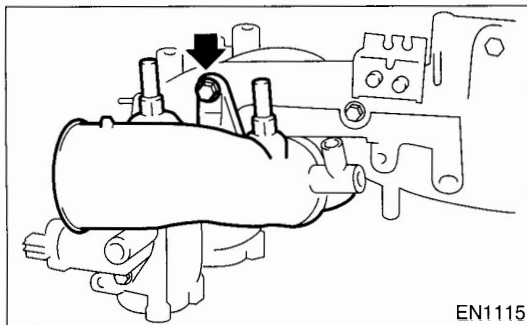
- 1) Disconnect the ground terminal from battery.



- 2) Remove the intake manifold. <Ref. to FU(DOHC TURBO)-15, REMOVAL, Intake Manifold.>

- 3) Remove the sensor, engine harness, and fuel pipe attached to the intake manifold. <Ref. to FU(DOHC TURBO)-21, DISASSEMBLY, Intake Manifold.>

- 4) Remove the intake duct from intake manifold.



B: INSTALLATION

Install in the reverse order of removal.

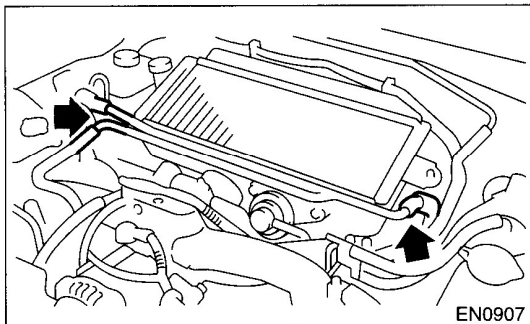
INTERCOOLER

INTAKE (INDUCTION)

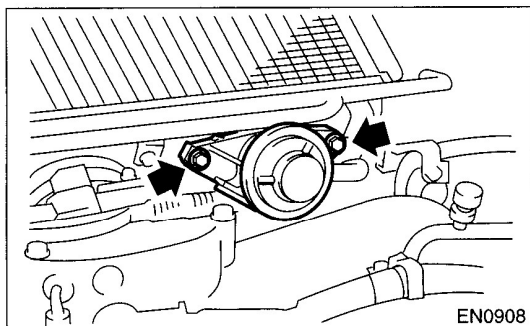
5. Intercooler

A: REMOVAL

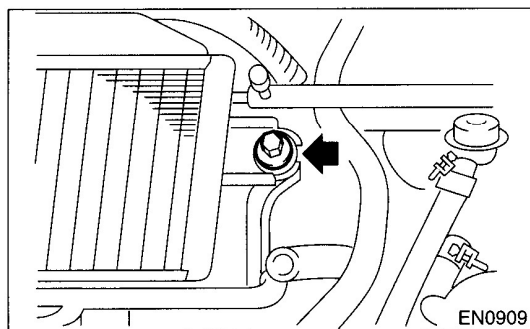
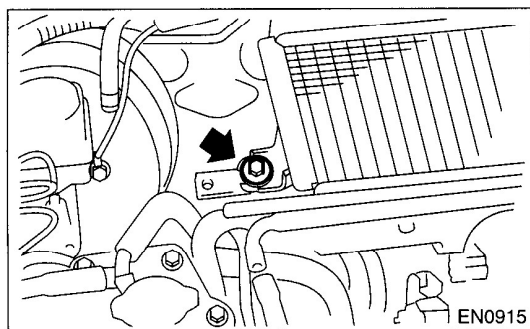
1) Disconnect the air by-pass hoses from intercooler.



2) Separate the air by-pass valve from intercooler.

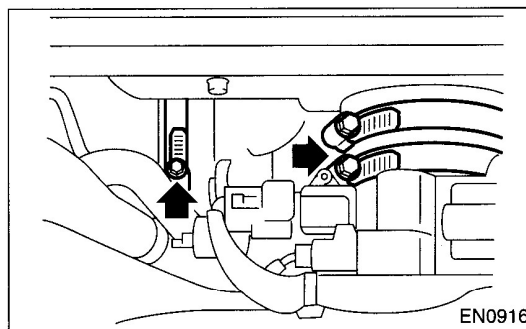


3) Remove the bolts which secure intercooler to bracket.



4) Separate the intercooler air duct from turbocharger.

5) Separate the intercooler from throttle body.



INTERCOOLER

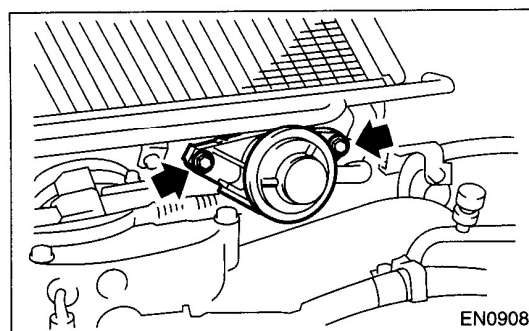
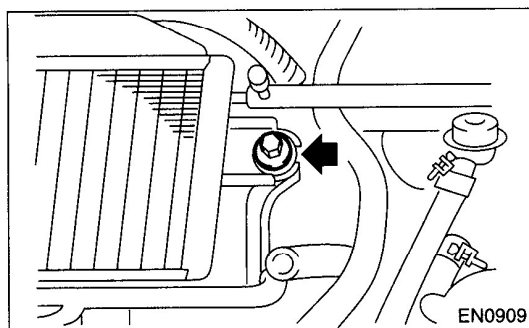
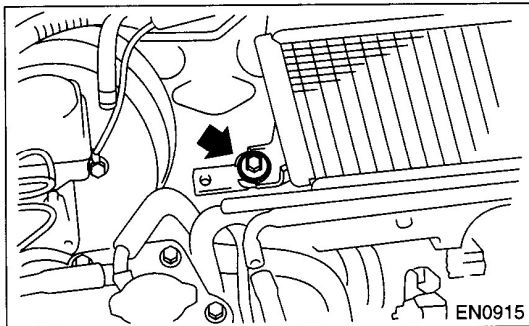
INTAKE (INDUCTION)

B: INSTALLATION

Install in the reverse order of removal.

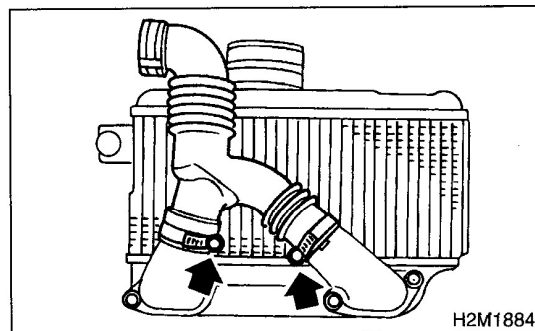
Tightening torque:

16 N·m (1.6 kgf-m, 11.7 ft-lb)

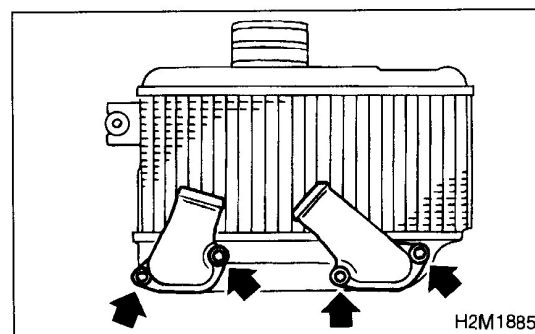


C: DISASSEMBLY

1) Loosen the clamps, then remove intercooler duct.



2) Remove the intercooler ducts from intercooler.

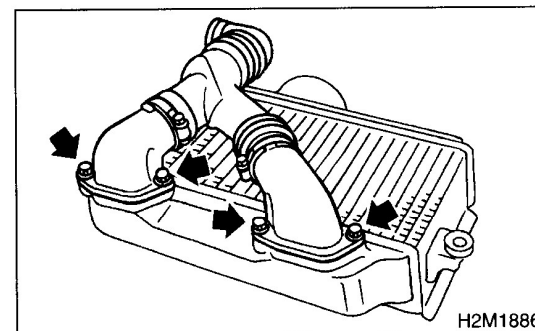


D: ASSEMBLY

Assemble in the reverse order of disassembly.

Tightening torque:

16 N·m (1.6 kgf-m, 11.7 ft-lb)



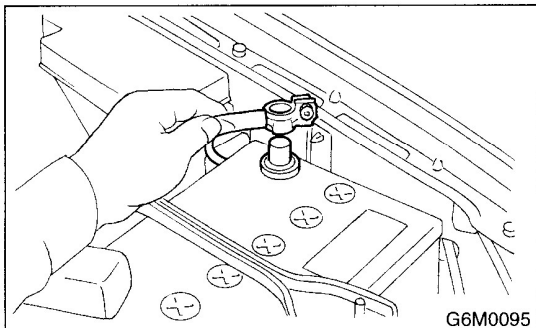
TURBOCHARGER

INTAKE (INDUCTION)

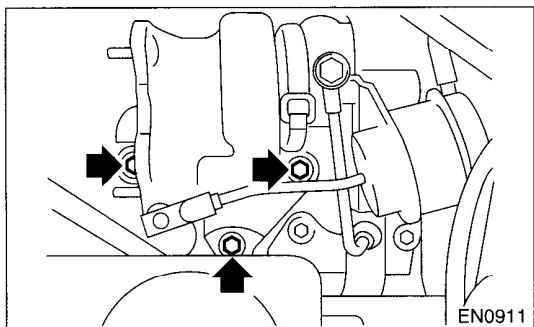
6. Turbocharger

A: REMOVAL

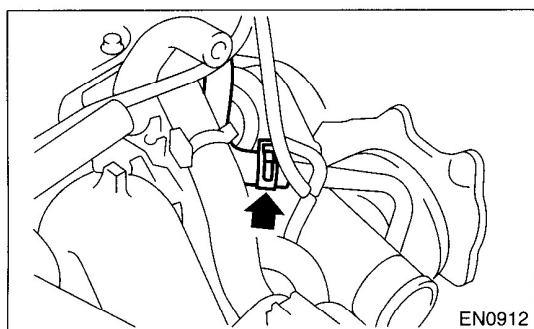
- 1) Set the vehicle on the lift.
- 2) Disconnect the ground terminal from battery.



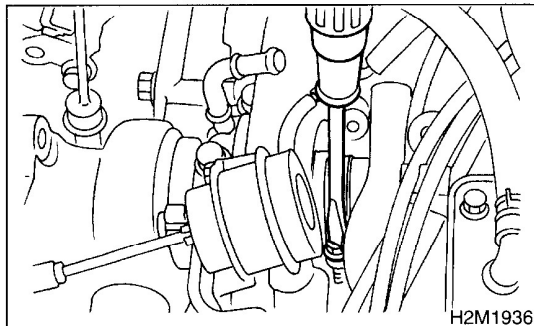
- 3) Remove the center exhaust pipe. <Ref. to EX(DOHC TURBO)-8, REMOVAL, Center Exhaust Pipe.>
- 4) Lower the vehicle.
- 5) Separate the turbocharger joint pipe from turbocharger.



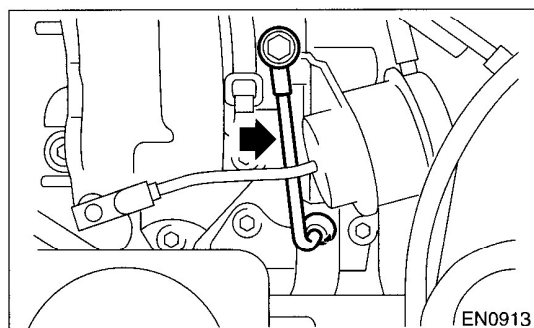
- 6) Disconnect the engine coolant hose which is connected to coolant filler tank.



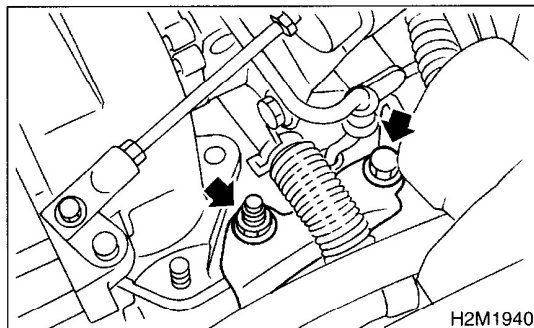
- 7) Loosen the clamp which secures turbocharger to air inlet duct.



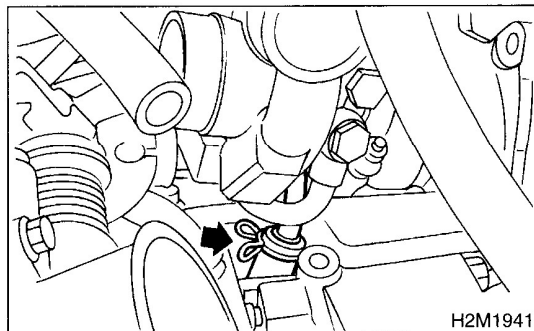
- 8) Remove the bolt which secures bracket of oil pipe to turbocharger.
- 9) Remove the oil pipe from turbocharger.



- 10) Remove the turbocharger bracket.



- 11) Disconnect the oil outlet hose from pipe.



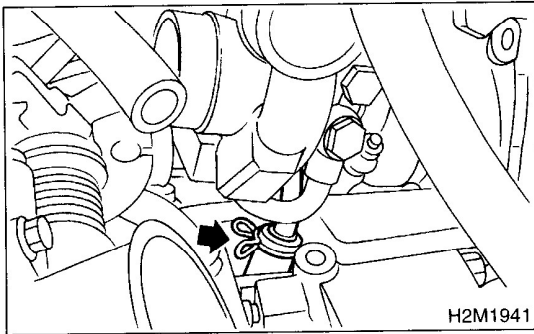
- 12) Take out the turbocharger from engine compartment.

TURBOCHARGER

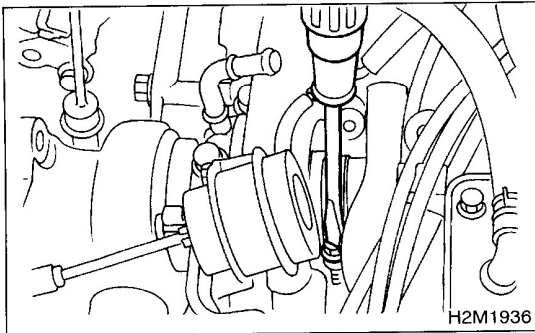
INTAKE (INDUCTION)

B: INSTALLATION

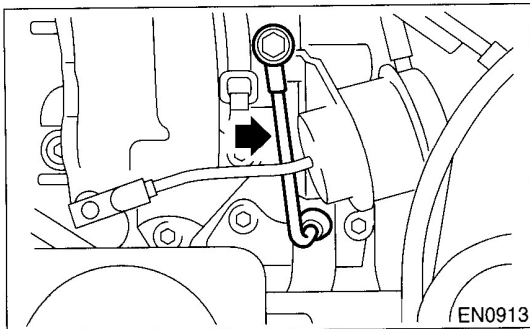
1) Connect the oil outlet hose to outlet pipe.



2) Install the turbocharger to air intake duct.



3) Install the oil pipe to turbocharger.



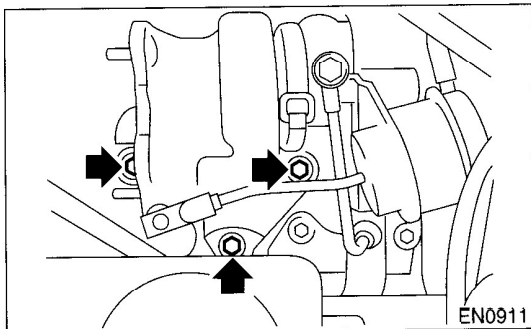
4) Install the joint pipe to turbocharger.

NOTE:

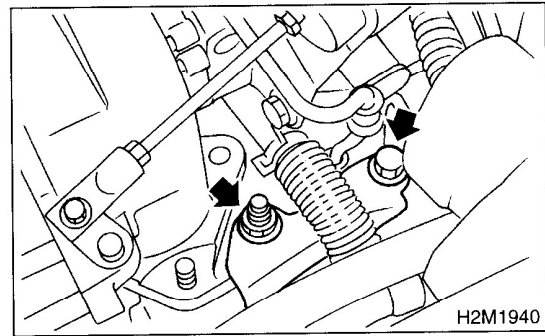
Replace the gasket with a new one.

Tightening torque:

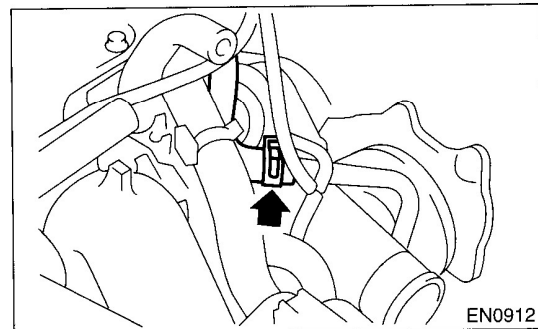
30 N·m (3.1 kgf-m, 22.4 ft-lb)



5) Install the turbocharger bracket.



6) Connect the engine coolant hose which is connected to coolant filler tank.



7) Lift-up the vehicle.

8) Install the center exhaust pipe. <Ref. to EX(DOHC TURBO)-9, INSTALLATION, Center Exhaust Pipe.>

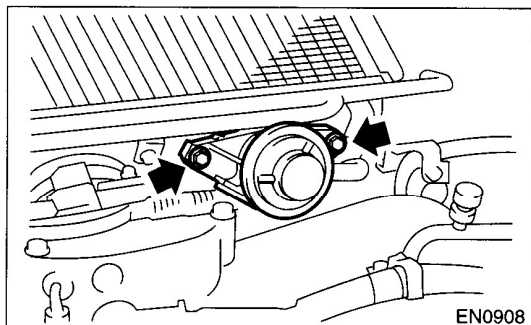
AIR BY-PASS VALVE

INTAKE (INDUCTION)

7. Air By-pass Valve

A: REMOVAL

- 1) Remove the air by-pass valve from intercooler.



- 2) Disconnect the air by-pass hoses from air by-pass valve.

B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

16 N·m (1.6 kgf-m, 11.7 ft-lb)

