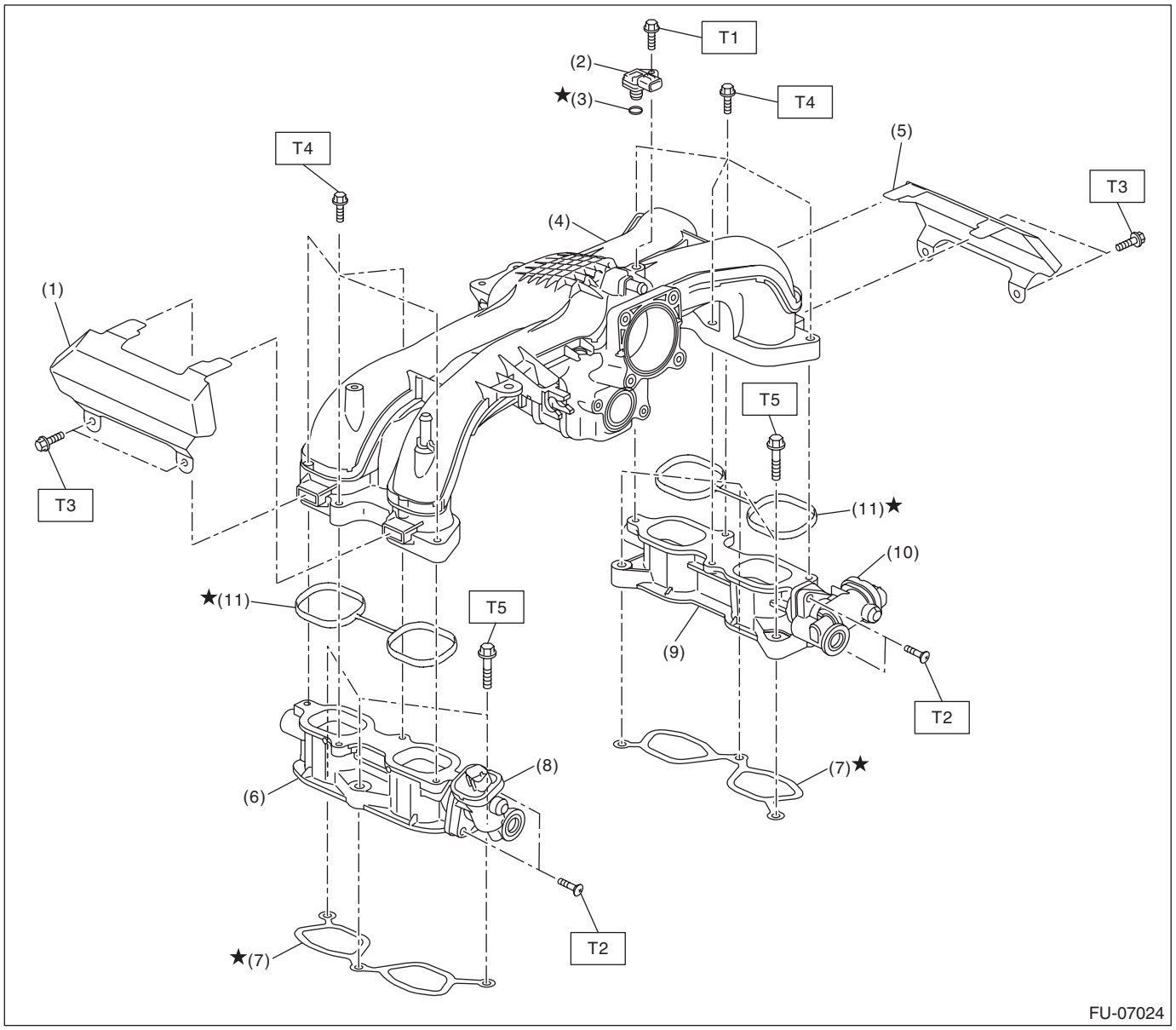
1. General Description

A: SPECIFICATION

Fuel tank	Capacity	70 L (18.5 US gal, 15.4 Imp gal)
	Location	Under rear seat
Fuel pump	Type	Impeller
	Shutoff discharge pressure	677 kPa (6.9 kgf/cm^2, 98.2 psi) or less
	Discharge rate	105 L (27.7 US gal, 23.1 Imp gal)/h or more [12 V at 300 kPa (3.06 kgf/cm^2, 43.5 psi)]
Fuel filter		In-tank type

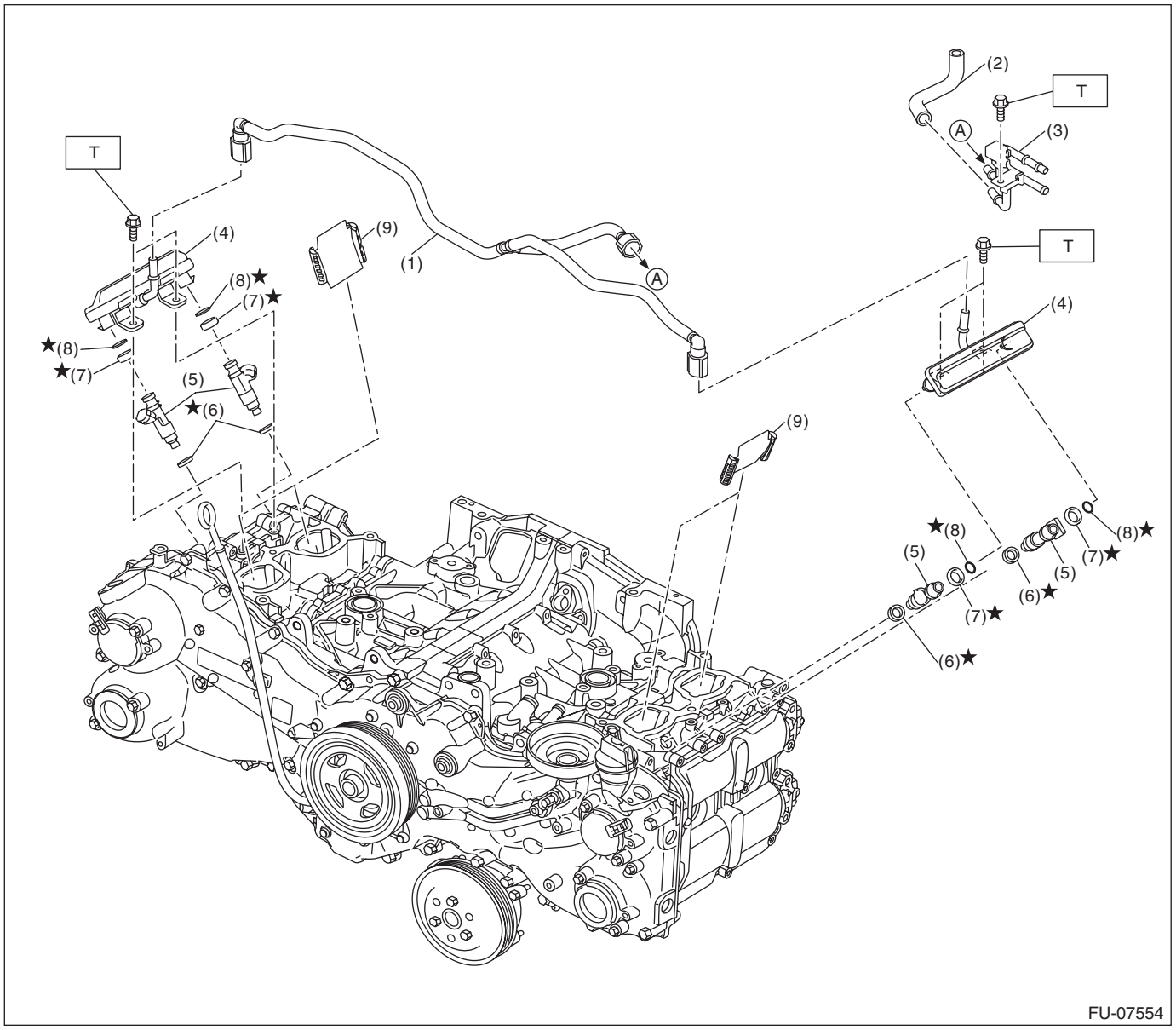
B: COMPONENT

1. INTAKE MANIFOLD 1



(1)	Intake manifold protector LH	(7)	Gasket	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Manifold absolute pressure sensor	(8)	Tumble generator valve actuator LH	***T1: 2 (0.2, 1.5)***
(3)	O-ring	(9)	Tumble generator valve RH	***T2: 6 (0.6, 4.4)***
(4)	Intake manifold	(10)	Tumble generator valve actuator RH	***T3: 6.4 (0.7, 4.7)***
(5)	Intake manifold protector RH	(11)	Gasket	***T4: 8.3 (0.8, 6.1)***
(6)	Tumble generator valve LH			***T5: 25 (2.5, 18.4)***

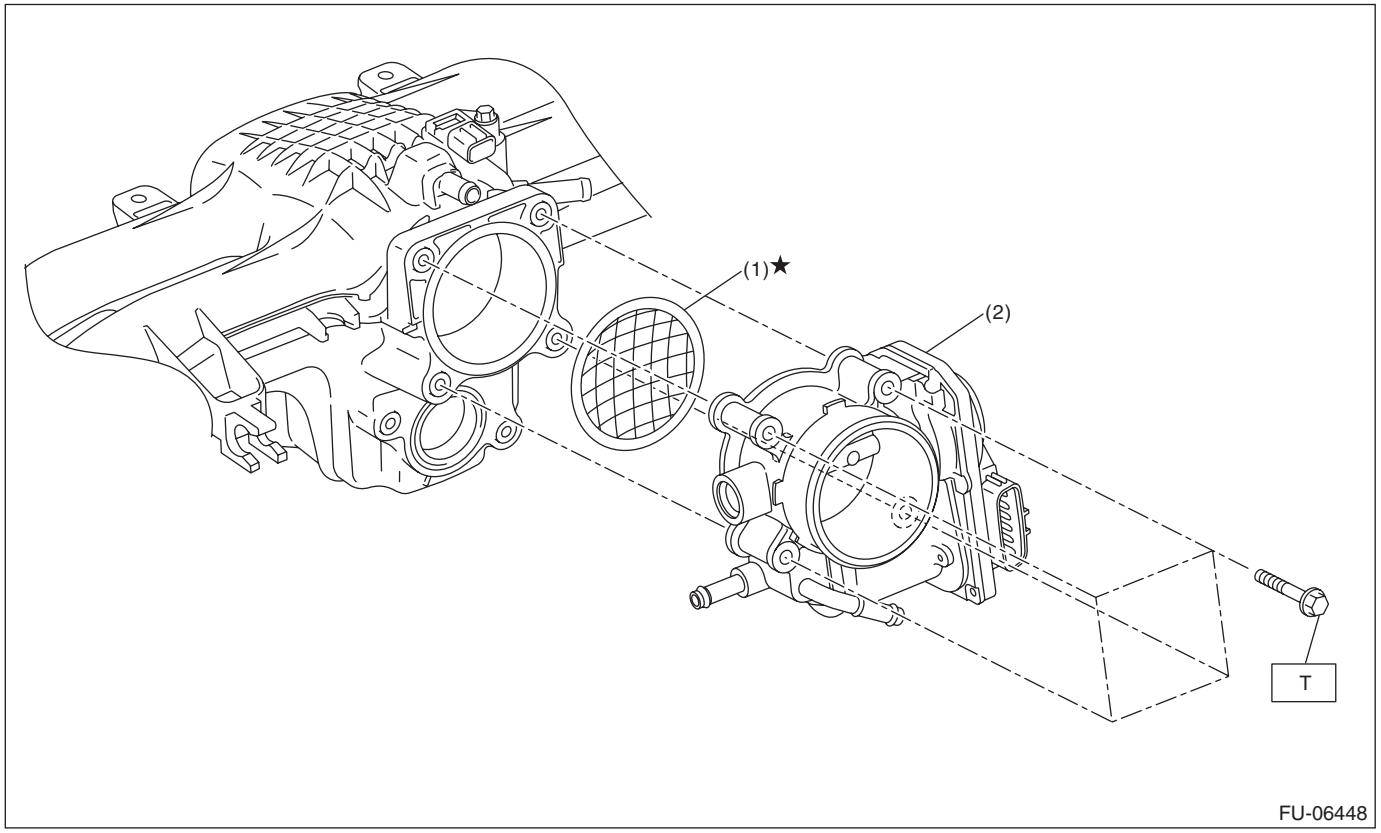
2. INTAKE MANIFOLD 2



(1) Fuel delivery pipe
(2) Vacuum hose
(3) Fuel pipe A
(4) Fuel pipe B
(5) Injector
(6) Seal ring
(7) Rubber
(8) O-ring
(9) Cylinder head plate

Tightening torque: N·m (kgf-m, ft-lb)
T: 6.4 (0.7, 4.7)

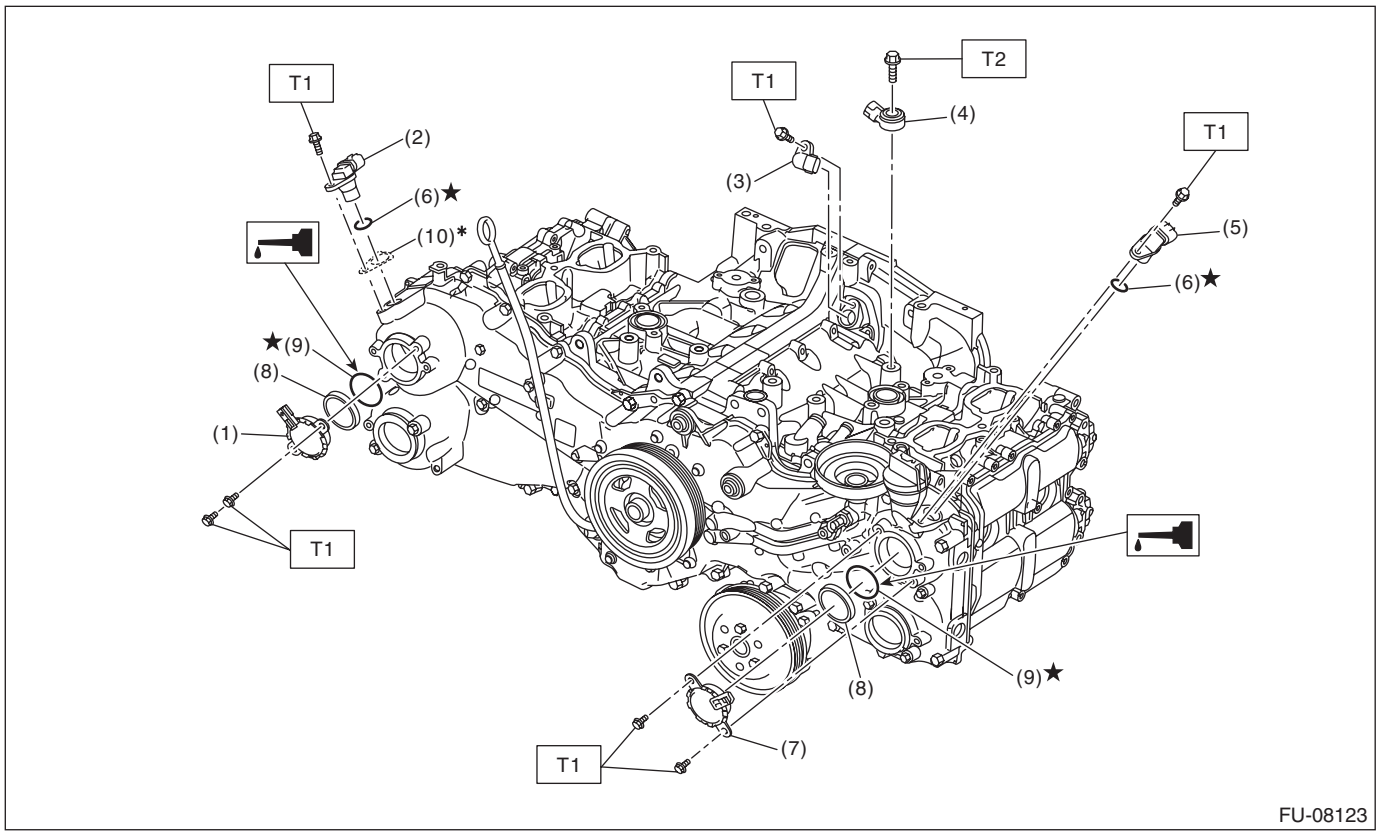
3. THROTTLE BODY



(1) Gasket
(2) Throttle body

Tightening torque: N·m (kgf-m, ft-lb)
T: 8 (0.8, 5.9)

4. CRANKSHAFT POSITION, CAMSHAFT POSITION AND KNOCK SENSORS

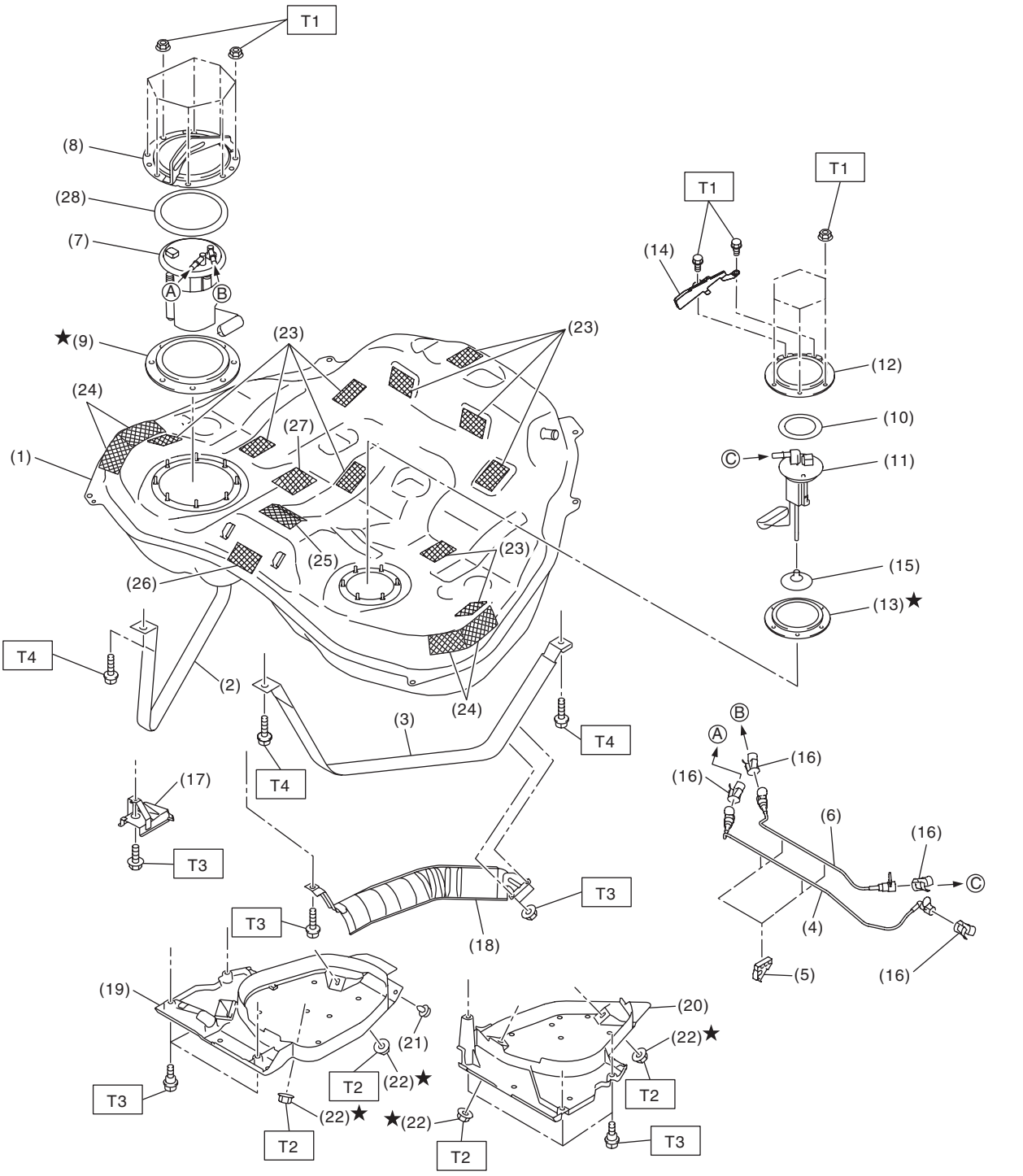


(1) Intake oil control solenoid RH
(2) Camshaft position sensor RH
(3) Crankshaft position sensor
(4) Knock sensor
(5) Camshaft position sensor LH
(6) O-ring
(7) Intake oil control solenoid LH
(8) Back-up ring
(9) O-ring
(10) Spacer

* Use one or no spacer to adjust the gap.

Tightening torque: N·m (kgf-m, ft-lb)
T1: 6.4 (0.7, 4.7)
T2: 24 (2.4, 17.7)

5. FUEL TANK

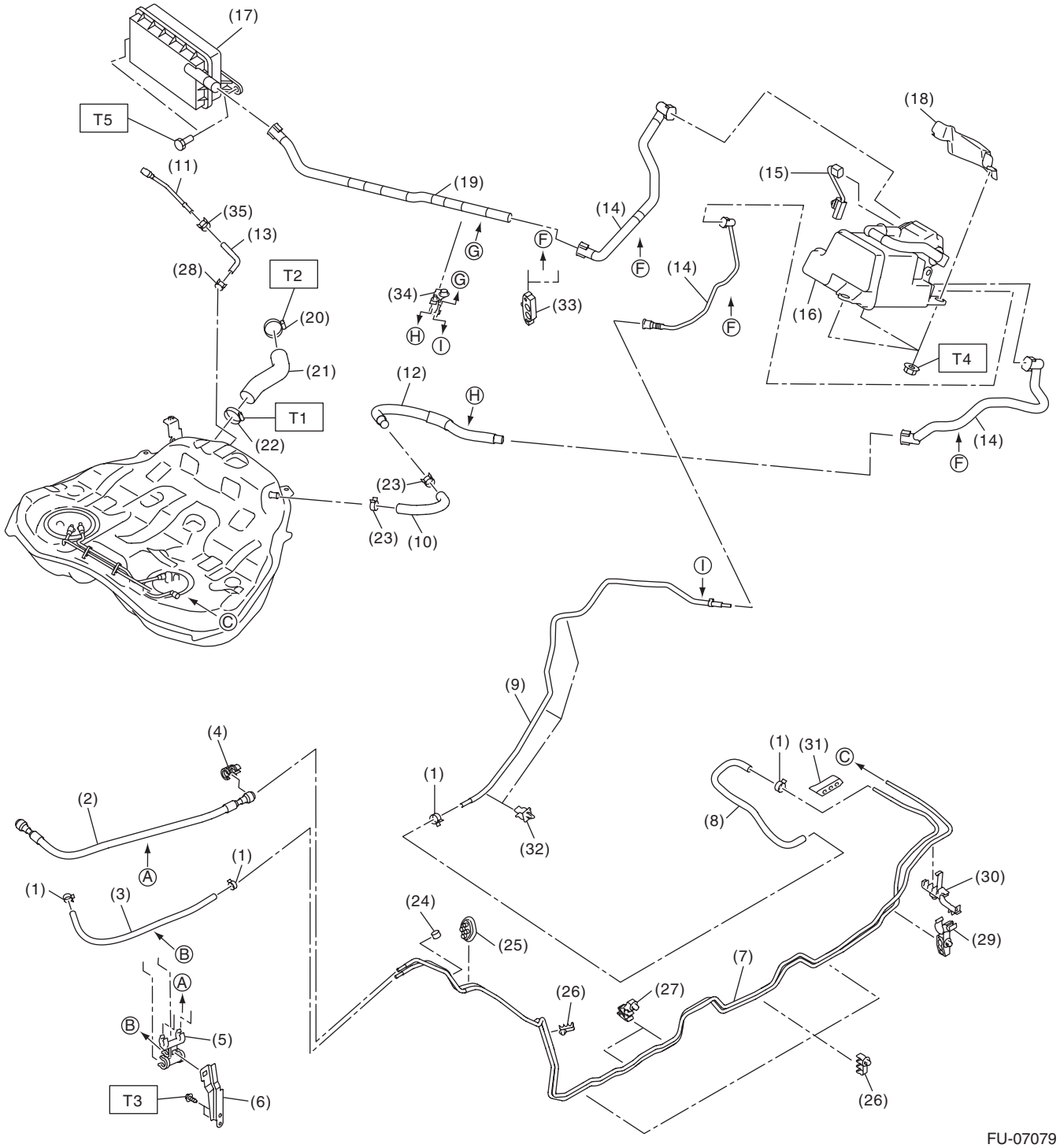


FU-07553

(1) Fuel tank
(2) Fuel tank band RH
(3) Fuel tank band LH
(4) Fuel delivery tube
(5) Tube clamp
(6) Fuel sub delivery tube
(7) Fuel pump ASSY
(8) Fuel pump upper plate
(9) Fuel pump gasket
(10) Fuel sub level sensor upper plate cushion
(11) Fuel sub level sensor
(12) Fuel sub level sensor upper plate
(13) Fuel sub level sensor gasket
(14) Fuel sub level sensor protector
(15) Fuel sub level sensor filter
(16) Retainer
(17) Stopper
(18) Heat shield cover
(19) Fuel tank protector RH
(20) Fuel tank protector LH
(21) Clip
(22) Self-locking nut
(23) Cushion
(24) Cushion
(25) Cushion
(26) Cushion
(27) Cushion
(28) Fuel pump upper plate cushion

Tightening torque: N·m (kgf-m, ft-lb)
T1: 4.4 (0.4, 3.2)
T2: 9 (0.9, 6.6)
T3: 18 (1.8, 13.3)
T4: 33 (3.4, 24.3)

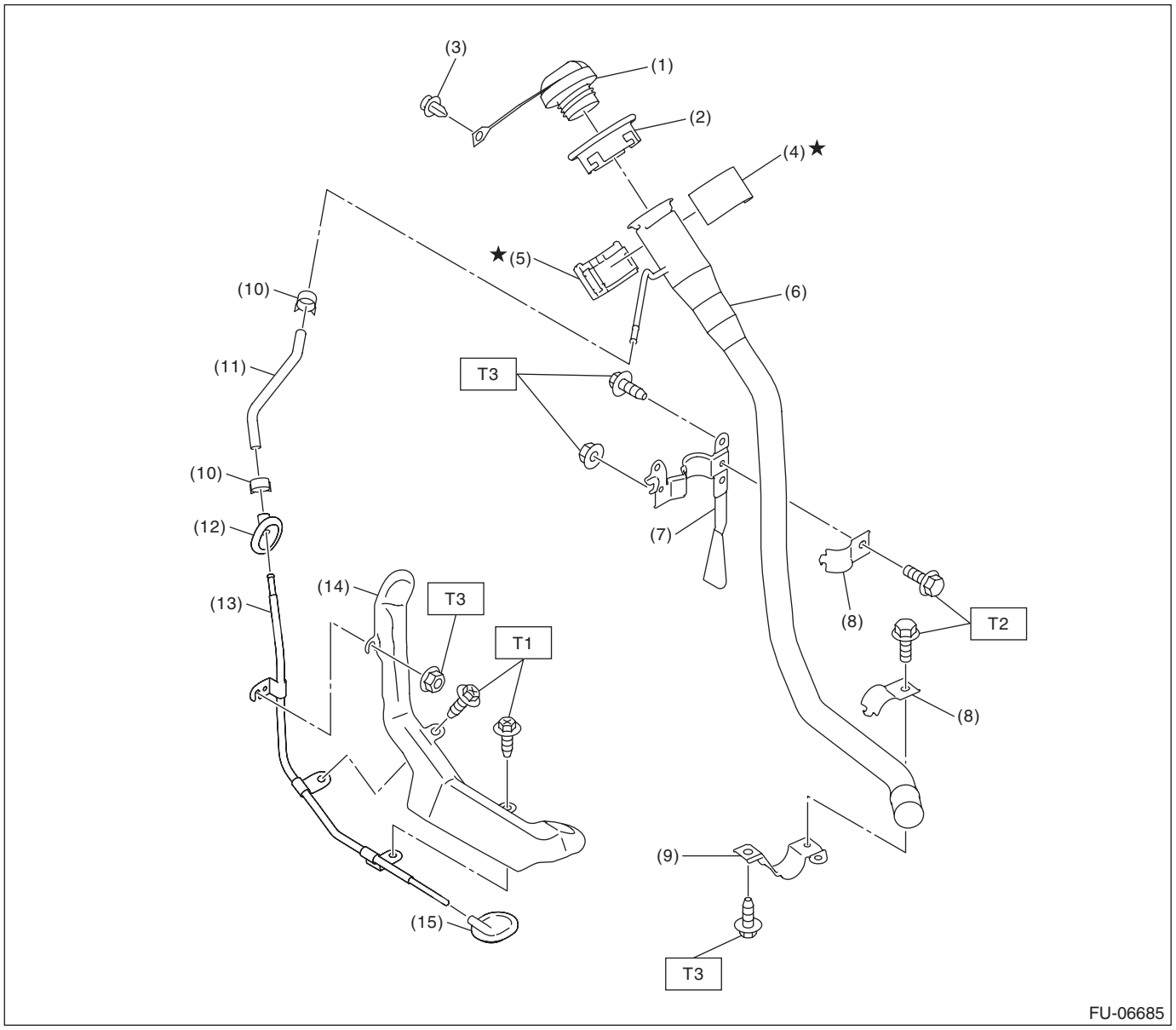
6. FUEL LINE


(17)
T5
(11)
(35)
(13)
(28)
T2
(20)
(21)
T1
(22)
(19)
(14)
(18)
(15)
(16)
T4
(34)
(33)
(12)
(23)
(10)
(9)
(1)
(32)
(31)
(8)
(30)
(29)
(4)
(2)
(3)
(24)
(25)
(7)
(26)
(27)
T3
(5)
(6)
FU-07079

(1) Clip
(2) Fuel delivery hose
(3) Evaporation hose
(4) Connect check cover
(5) Hose clamp
(6) Hose clamp bracket
(7) Fuel pipe ASSY
(8) Purge hose
(9) Purge pipe
(10) Air vent hose A
(11) Circulate tube
(12) Air vent tube
(13) Circulate hose
(14) Canister tube ASSY
(15) Connector
(16) Canister
(17) Drain filter
(18) Canister protector
(19) Drain tube ASSY
(20) Clamp
(21) Fuel filler hose
(22) Clamp
(23) Clip
(24) Bushing
(25) Fuel pipe front grommet
(26) Pipe clamp
(27) Pipe clamp
(28) Clip
(29) Pipe clamp
(30) Pipe clamp
(31) Fuel pipe rear grommet
(32) Pipe clamp
(33) Tube clamp
(34) Tube clamp
(35) Clip

Tightening torque: N·m (kgf-m, ft-lb)
T1: 2 (0.2, 1.5)
T2: 2.5 (0.3, 1.8)
T3: 7.5 (0.8, 5.5)
T4: 8 (0.8, 5.9)
T5: 7.5 (0.8, 5.5)

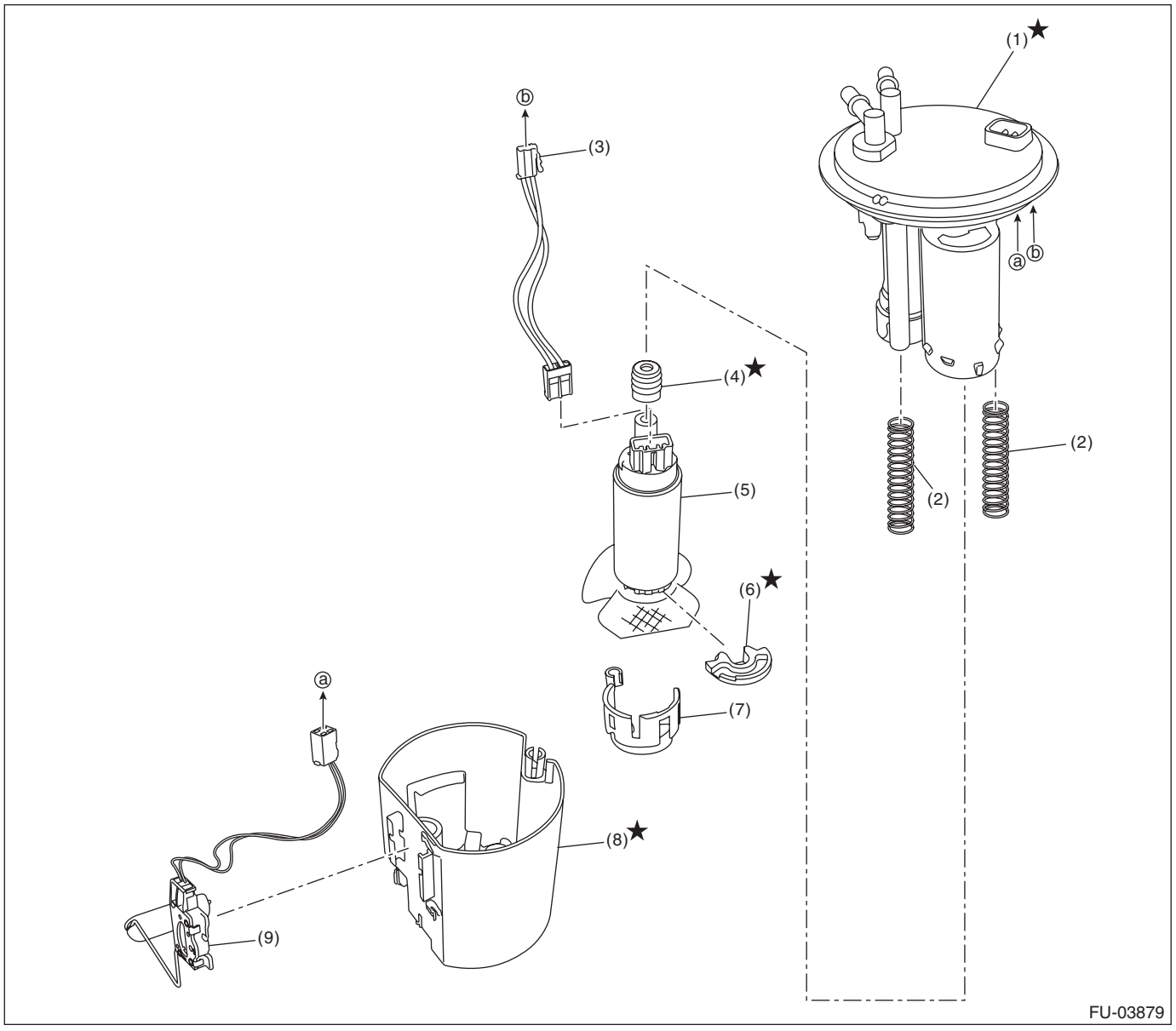
7. FUEL FILLER PIPE



(1) Fuel filler cap
(2) Fuel filler pipe protector
(3) Clip
(4) Neck holder A
(5) Neck holder B
(6) Fuel filler pipe
(7) Fuel filler pipe bracket A
(8) Fuel filler pipe bracket B
(9) Fuel filler pipe bracket C
(10) Clip
(11) Evaporation hose
(12) Grommet
(13) Evaporation pipe
(14) Evaporation pipe protector
(15) Grommet

Tightening torque: N·m (kgf-m, ft-lb)
T1: 1 (0.1, 0.7)
T2: 7.35 (0.7, 5.4)
T3: 7.5 (0.8, 5.5)

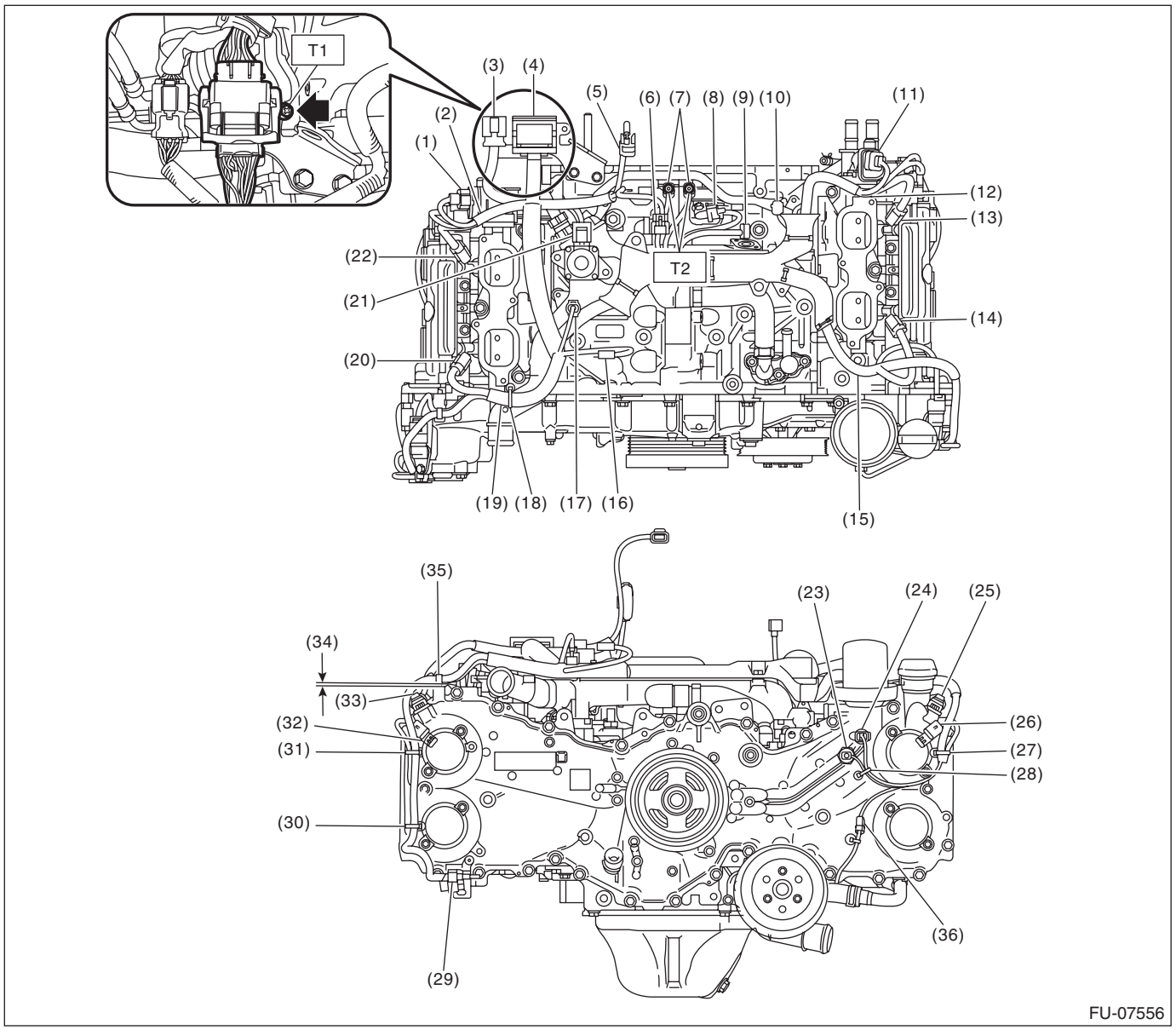
8. FUEL PUMP



(1) Fuel filter ASSY
(2) Pump module spring
(3) Fuel pump harness
(4) Packing spacer
(5) Fuel pump
(6) Support rubber cushion
(7) Fuel pump holder
(8) Fuel chamber ASSY
(9) Fuel level sensor

9. ENGINE HARNESS

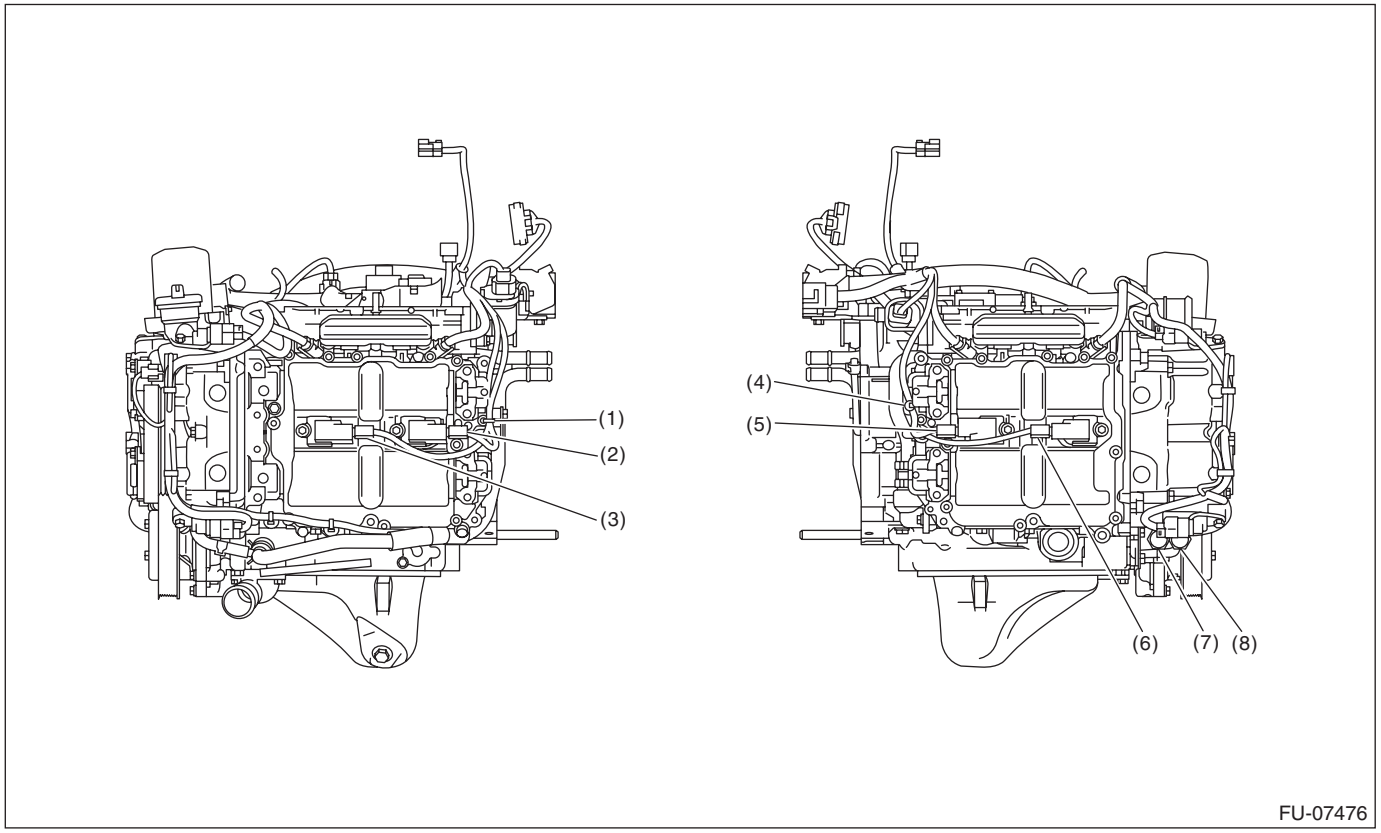
- Structural diagram 1



(1) Tumble generator valve actuator RH
(2) Be careful of pinching when installing the intake manifold.
(3) Engine harness connector (16P)
(4) Engine harness connector (54P)
(5) Throttle position sensor connector
(6) Manifold pressure sensor connector
(7) Engine ground (2 locations)
(8) Crankshaft position sensor
(9) Knock sensor
(10) Purge control solenoid valve connector
(11) Tumble generator valve actuator LH
(12) Be careful of pinching when installing the intake manifold.
(13) Fuel injector (#4)
(14) Fuel injector (#2)
(15) Be careful of pinching when installing the intake manifold and A/C bracket.
(16) Power steering switch connector
(17) Engine coolant temperature sensor
(18) Secure the clip to the screw hole.
(19) Be careful of pinching when installing the intake manifold.
(20) Fuel injector (#1)
(21) EGR valve
(22) Fuel injector (#3)
(23) Oil pressure switch
(24) Engine oil temperature sensor
(25) Camshaft position sensor LH
(26) Intake oil control solenoid LH
(27) Secure the clip to the screw hole.
(28) Secure the clip to the screw hole.
(29) Secure the clip to the oval hole.
(30) Secure the clip to the screw hole.
(31) Secure the clip to the screw hole.
(32) Intake oil control solenoid RH
(33) Camshaft position sensor RH
(34) Maximum of 0 — 2 mm (0 — 0.079 in) gap is allowed.
(35) Secure the clip to the screw hole.
(36) Oil level switch

Tightening torque: N·m (kgf-m, ft-lb)
T1: 7.5 (0.8, 5.5)
T2: 19 (1.9, 14.0)

- Structural diagram 2



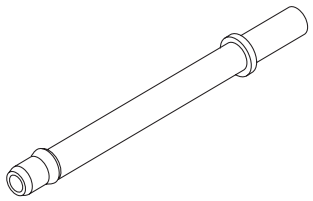
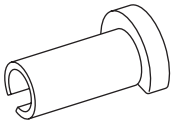
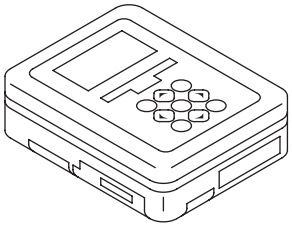
(1) Secure the clip to the screw hole.
(2) Ignition coil No. 4
(3) Ignition coil No. 2
(4) Secure the clip to the screw hole.
(5) Ignition coil No. 3
(6) Ignition coil No. 1
(7) Rear oxygen sensor
(8) Front oxygen (A/F) sensor

C: CAUTION

- Prior to starting work, pay special attention to the following:
  1. Always wear work clothes, a safety cap, protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
  2. Protect the vehicle using a seat cover, fender cover, etc.
  3. Prepare the service tools, clean cloth, containers to catch grease and oil, etc.
- Place “NO OPEN FLAMES” signs near the working area.
- Prepare a container and cloth to prevent scattering of fuels when performing work where fuels can be spilled. If the oil spills, wipe it off immediately to prevent from penetrating into floor or flowing out for environmental protection.
- Vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.
- When performing a repair, identify the cause of trouble and avoid unnecessary removal, disassembly and replacement.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery.
- Always use the jack-up point when the shop jacks or rigid racks are used to support the vehicle.
- Remove contamination including dirt and corrosion before removal, installation, disassembly or assembly.
- Keep the removed parts in order and protect them from dust and dirt.
- All removed parts, if to be reused, should be reinstalled in the original positions with attention to the correct directions, etc.
- Bolts, nuts and washers should be replaced with new parts as required.
- Follow all government and local regulations concerning disposal of refuse when disposing fuel.

D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST18471AA000	18471AA000	FUEL PIPE ADAPTER	Used for draining fuel.
 ST42099AE000	42099AE000	QUICK CONNECTOR RELEASE	Used for removing the quick connector.
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for draining fuel and each inspection.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Oscilloscope	Used for inspecting the waveform of each sensor.