

ENGINE MECHANICALS

24. Fill the radiator tank and reserve tank with cooling water.

NOTE:

- ① After completion of the operation, make sure that no leakage exists.
- ② Put the coolant, as required.

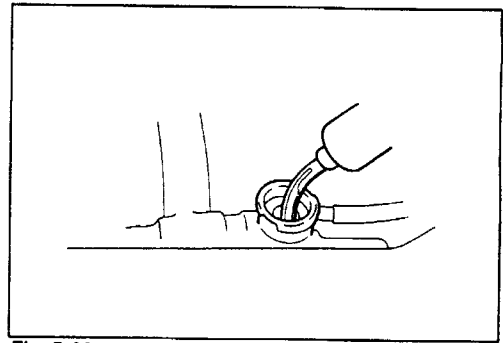


Fig. 5-44

WM-05051

Amount of coolant (When undiluted coolant with 98% concentration is used:)

[With heater]

Atmosphere temperature		Concentration	Radiator (litre)	Reserve tank (litre)
-10°C	Petrol engine (Type CB-23 engine)	Manual transmission	0.66	0.14
		Automatic transmission	0.75	0.14
	Petrol turbo engine (Type CB-61 engine)		0.75	0.14
	Petrol turbo engine (Type CB-80 engine)		0.77	0.14
	Diesel engine (Type CL-11 engine)		0.82	0.14
	Diesel turbo engine (Type CL-61 engine)		0.85	0.14
-20°C	Petrol engine (Type CB-23 engine)	Manual transmission	1.00	0.21
		Automatic transmission	1.14	0.21
	Petrol turbo engine (Type CB-61 engine)		1.14	0.21
	Petrol turbo engine (Type CB-80 engine)		1.17	0.21
	Diesel engine (Type CL-11 engine)		1.25	0.21
	Diesel turbo engine (Type CL-61 engine)		1.29	0.21
-35°C	Petrol engine (Type CB-23 engine)	Manual transmission	1.44	0.30
		Automatic transmission	1.64	0.30
	Petrol turbo engine (Type CB-61 engine)		1.64	0.30
	Petrol turbo engine (Type CB-80 engine)		1.68	0.30
	Diesel engine (Type CL-11 engine)		1.79	0.30
	Diesel turbo engine (Type CL-61 engine)		1.84	0.30

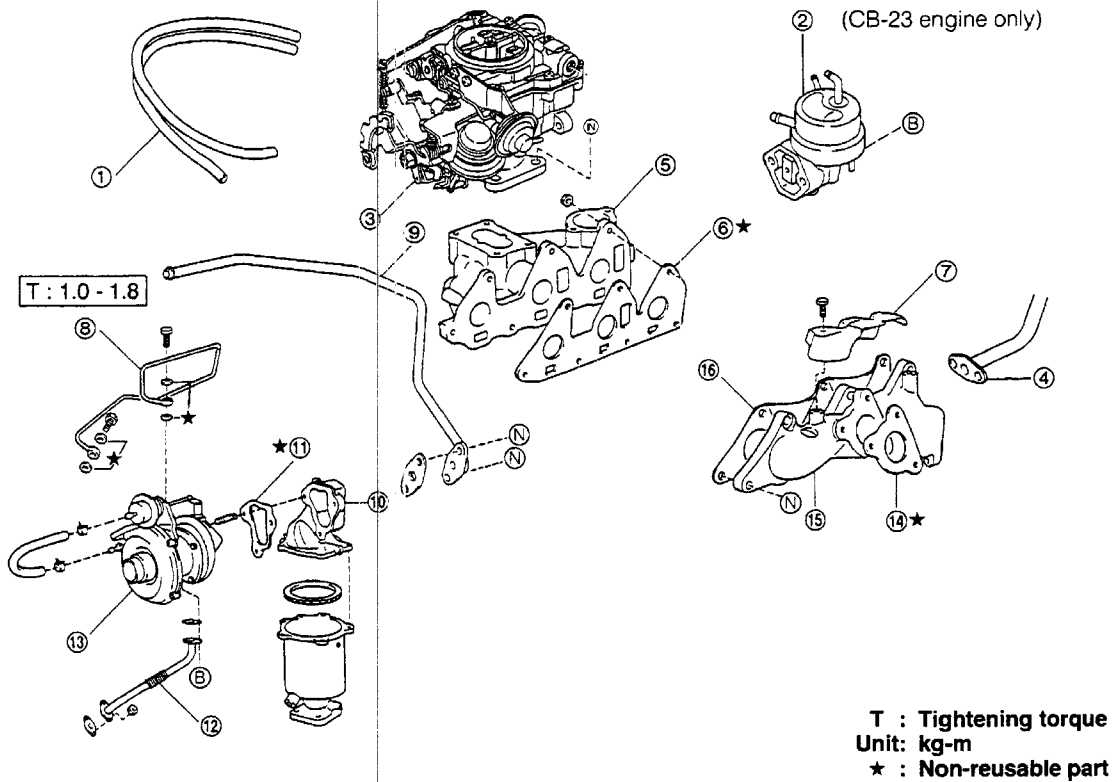
WM-05052

ENGINE MECHANICALS

INTAKE AND EXHAUST SYSTEM

CB-23 AND CB-61 ENGINES

COMPONENTS OF INTAKE AND EXHAUST SYSTEM



- ① Hoses
- ② Fuel pump (CB-23 engine only)
- ③ Carburetor Ay
- ④ EGR pipe (Specific area only)
- ⑤ Intake manifold Ay
- ⑥ Intake manifold-to-cylinder head gasket
- ⑦ Exhaust manifold heat insulator No.1
- ⑧ Turbocharger oil inlet (CB-61 engine only)
- ⑨ Air suction pipe (Specific area only)
- ⑩ Exhaust manifold case (CB-61 engine only)
- ⑪ Turbocharger-to-exhaust manifold gasket (CB-61 engine only)
- ⑫ Turbocharger oil outlet pipe S/A (CB-61 engine only)
- ⑬ Turbocharger Ay (CB-61 engine only)
- ⑭ Turbocharger-to-exhaust manifold gasket (CB-61 engine only)
- ⑮ Exhaust manifold Ay
- ⑯ Exhaust manifold-to-cylinder head gasket

Fig. 5-45

WM-05053

REMOVAL

1. Remove the surge tank assembly. (CB-61 engine only)
2. Remove the intake pipe. (CB-61 engine only)

NOTE:

After the intake pipe has been removed, plug the opening with adhesive tape so that no dust, etc. may get into the turbocharger turbine.

3. Remove the hoses.

NOTE:

When removing the vacuum hoses, put a tag on each removed hose so that the hoses may be installed correctly in the original position.

4. Remove the carburetor assembly.
5. Remove the fuel pump assembly. (On Type CB-61 engine, remove the bracket.)

6. Remove the EGR pipe. (Swiss specifications only)
7. Remove the intake manifold assembly.

8. Remove the exhaust manifold heat insulator No.1.
9. Remove the turbocharger oil inlet. (CB-61 engine only)
10. Remove the air suction pipe. (West German, Australian and Swiss specifications only)

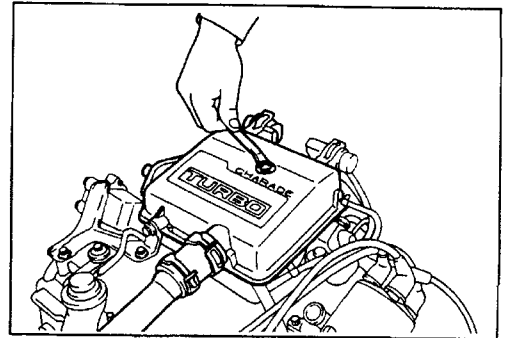


Fig. 5-46

WM-05054

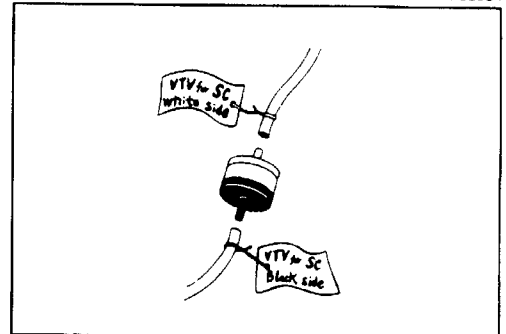


Fig. 5-47

WM-05055

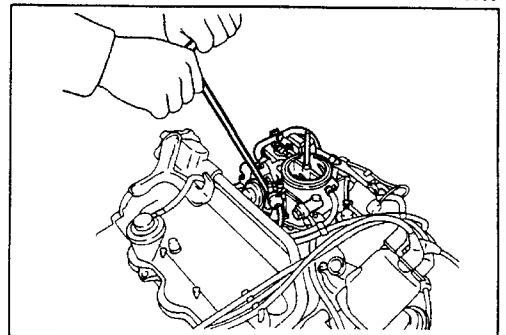


Fig. 5-48

WM-05056

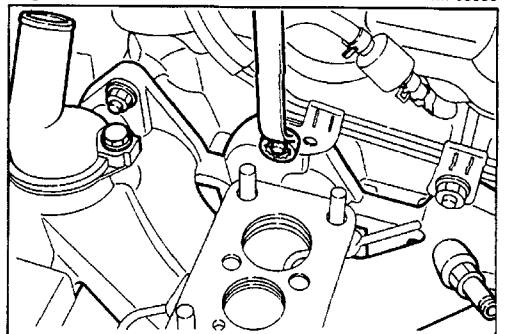


Fig. 5-49

WM-05057

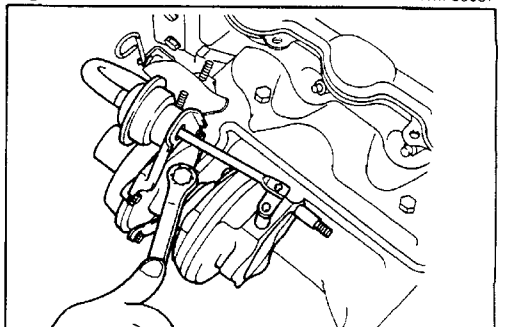


Fig. 5-50

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ENGINE MECHANICALS

11. Remove the exhaust manifold case. (CB-61 engine only)

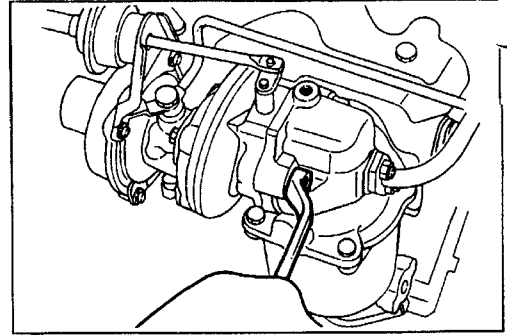


Fig. 5-51

WM-05059

12. Remove the turbocharger oil outlet pipe subassembly. (CB-61 engine only)

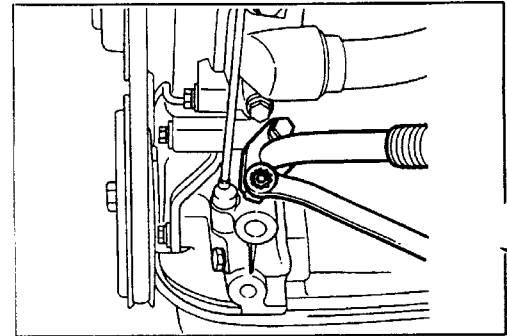


Fig. 5-52

WM-05060

13. Remove the turbocharger assembly (CB-61 engine only)

NOTE:

For the handling instructions on the removed turbocharger assembly, see page 9-3.

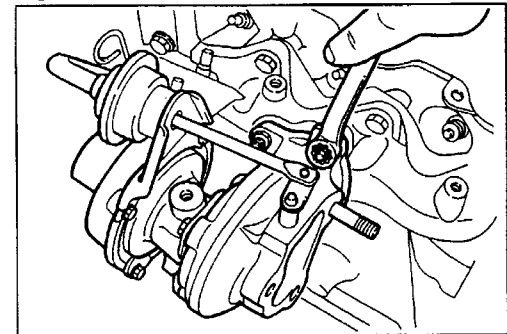


Fig. 5-53

WM-05061

14. Remove the exhaust manifold.

15. Remove the exhaust manifold-to-cylinder head gasket.

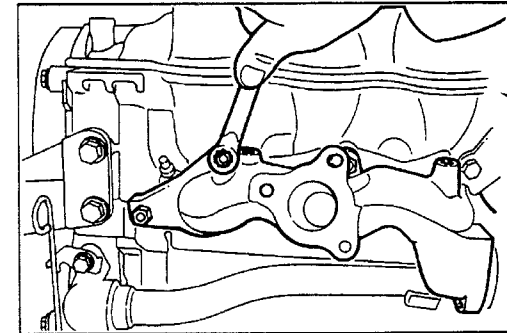


Fig. 5-54

WM-05062

INSPECTION

1. Check the cylinder head attaching surface of the intake manifold for distortion. Measure the distortion on the diagonal lines.

Allowable Limit (both intake and exhaust manifolds):

0.1 mm (0.0039 inch)

If the distortion exceeds the allowable limit, correct the surface by grinding it. However, this grinding amount should be limited to 0.3 mm (0.012 inch).

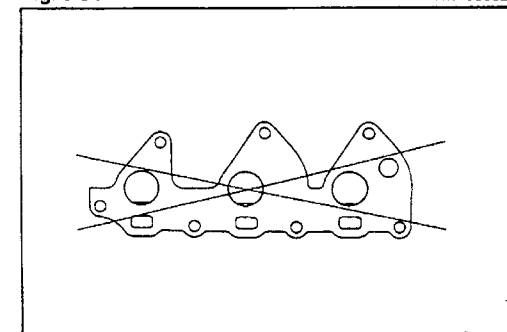


Fig. 5-55

WM-05063

2. Check the EGR valve. (See the section under "Exhaust Emission Control System" (page 12-28).)
3. Check the BVSV and TVSV. (See the section under "Exhaust Emission Control System" (page 12-23).)
4. Check the turbocharger. (See the section under "Turbocharger Check" (page 9-4).)
5. Check the carburetor. (See the section under "Carburetor Check" (page 6-5).)

WM-05064

INSTALLATION

1. Install the exhaust manifold-to-cylinder head gasket.
2. Install the exhaust manifold.
Tightening Torque: 1.0 - 1.6 kg-m (7 - 12 ft-lb)
3. Install the turbocharger-to-exhaust manifold gasket.
 (CB-61 engine only)

NOTE:

This gasket is a nonreusable part.

4. Install the turbocharger assembly. (CB-61 engine only)
NOTE:
 For the handling instructions on the turbocharger assembly, see page 9-3.
Tightening Torque: 2.5 - 3.3 kg-m (18 - 24 ft-lb)

5. Install the turbocharger oil outlet pipe subassembly.

6. Install the exhaust manifold case. (CB-61 engine only)
Tightening Torque: 3.0 - 4.0 kg-m (22 - 29 ft-lb)
7. Install the air suction pipe.
 (West German, Australian and Swiss specifications only)

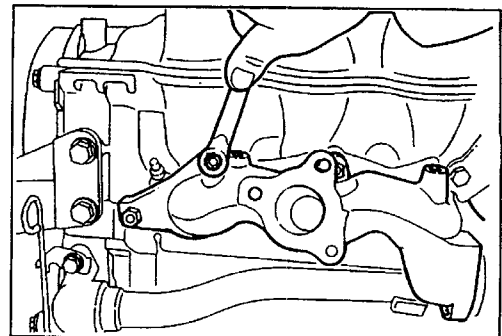


Fig. 5-56

WM-05065

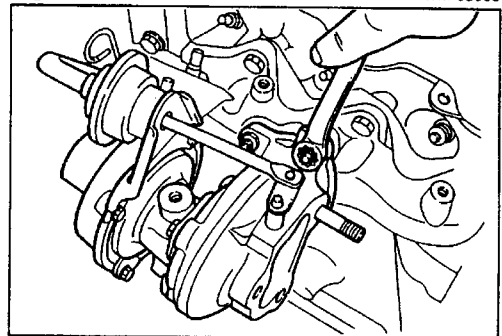


Fig. 5-57

WM-05066

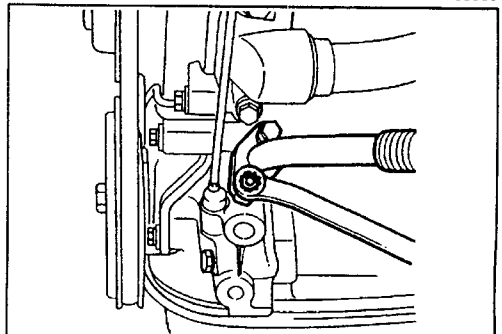


Fig. 5-58

WM-05067

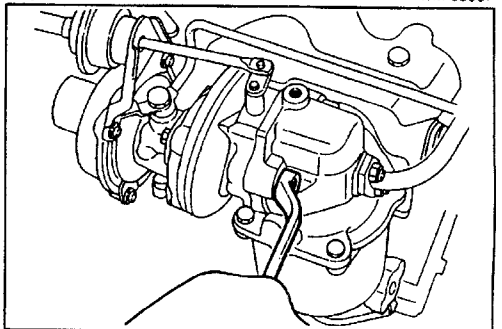


Fig. 5-59

WM-05068

ENGINE MECHANICALS

8. Install the turbocharger oil inlet. (CB-61 engine only)

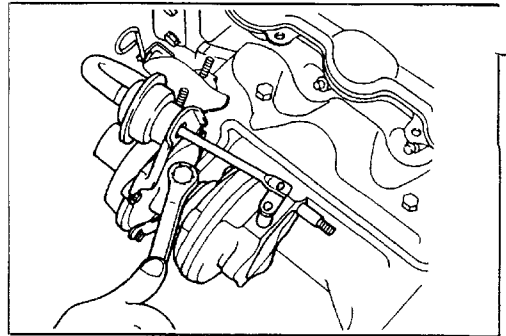


Fig. 5-60

WM-05069

9. Install the exhaust manifold heat insulator No.1.
10. Install the intake manifold-to-cylinder head gasket.
11. Install the intake manifold.

Tightening Torque: 1.0 - 1.6 kg-m (7 - 12 ft-lb)

NOTE:

This gasket is a nonreusable part.

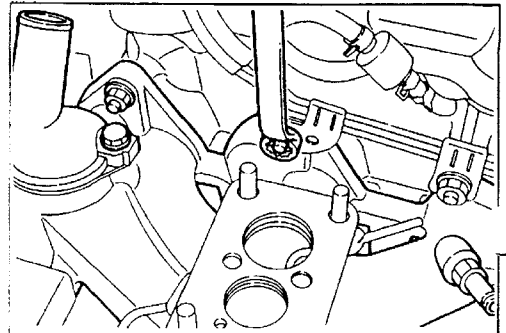


Fig. 5-61

WM-05070

12. Install the EGR pipe. (Swiss specifications only)
13. Install the carburetor assembly.
14. Install the fuel pump assembly. (On Type CB-61 engine, install the bracket.)

NOTE:

This gasket is a nonreusable part.

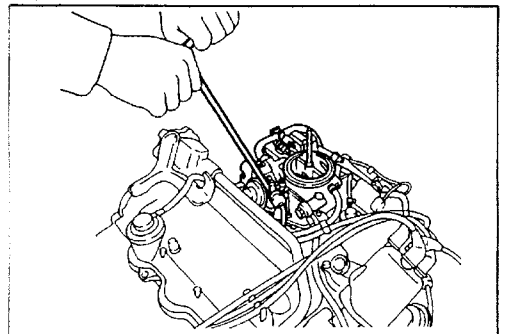


Fig. 5-62

WM-05071

15. Install the hoses.

NOTE:

Be sure to install the hoses correctly in accordance with the tags put during the removal.

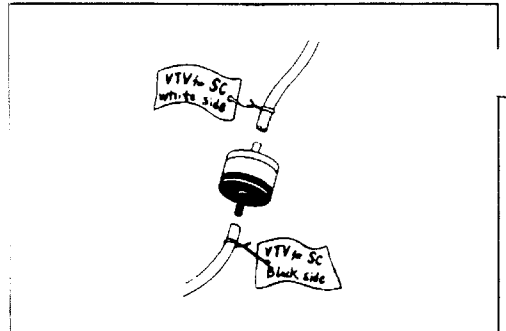


Fig. 5-63

WM-05072

16. Install the intake pipe. (CB-61 engine only)
17. Install the surge tank assembly. (CB-61 engine only)

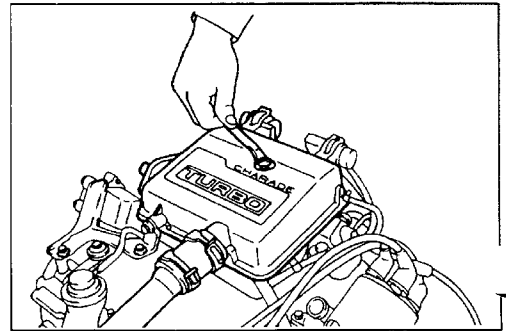


Fig. 5-64

WM-05073