

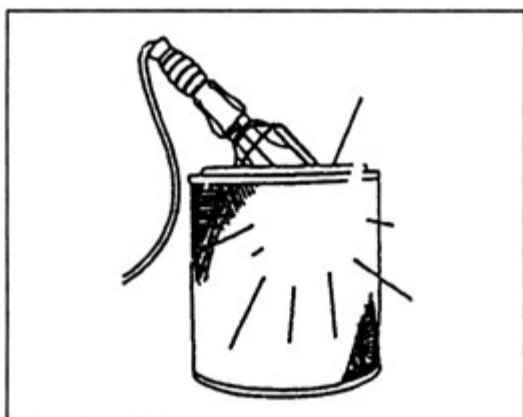
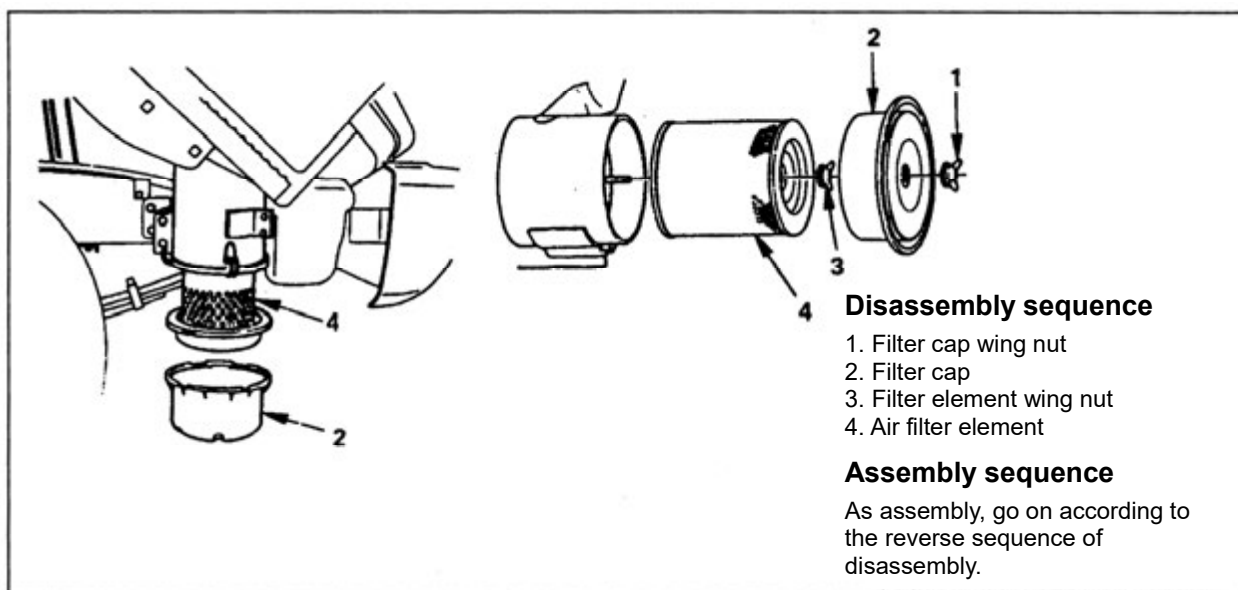
7.1 General



281



7.1 Air filter



Disassembly

1. Filter cap wing nut
2. Filter cap
3. Filter element wing nut
4. Air filter element

Cleaning

- Clean the air filter inside.
- Clean the air filter cap.

Inspection

- Check if the air filter element is intact and clear or with holes by light.

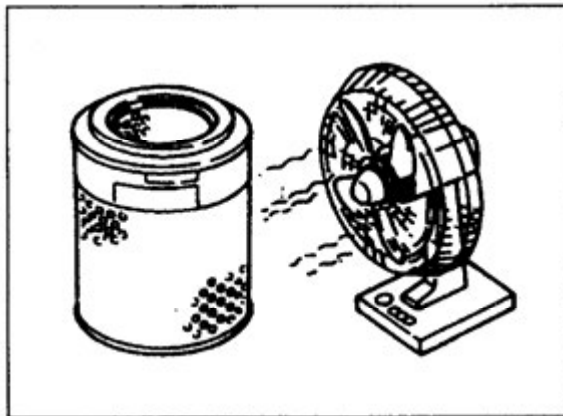
Cleaning method



Dust accumulated at the filter element

Manually turn the filter element and blow the compressor air into the element in order to blow off the dust.

Pressure of compressed air	kPa
392—490	



Caution:

In order to protect the filter element, do not knock the element with other objects during cleaning.

Filter element with carbon and dust accumulated

1. Prepare the filter cleaning liquid originally provided by JAC and dilute it with water.
2. Immerse the filter element in the cleaning liquid for 20 minutes.
3. Take the element out of the cleaning liquid and flush it with running water. The water pressure should not exceed 2.8kg / cm² (274kPa / 40psi).
4. Dry the filter element at a place with good ventilation. Use a fan for quick drying.

Note:

Never use the compressed air or open fire for quick drying or it will damage the filter element. It will take two to three days to completely dry a filter element. In this case, it would be better if a standby element were available.

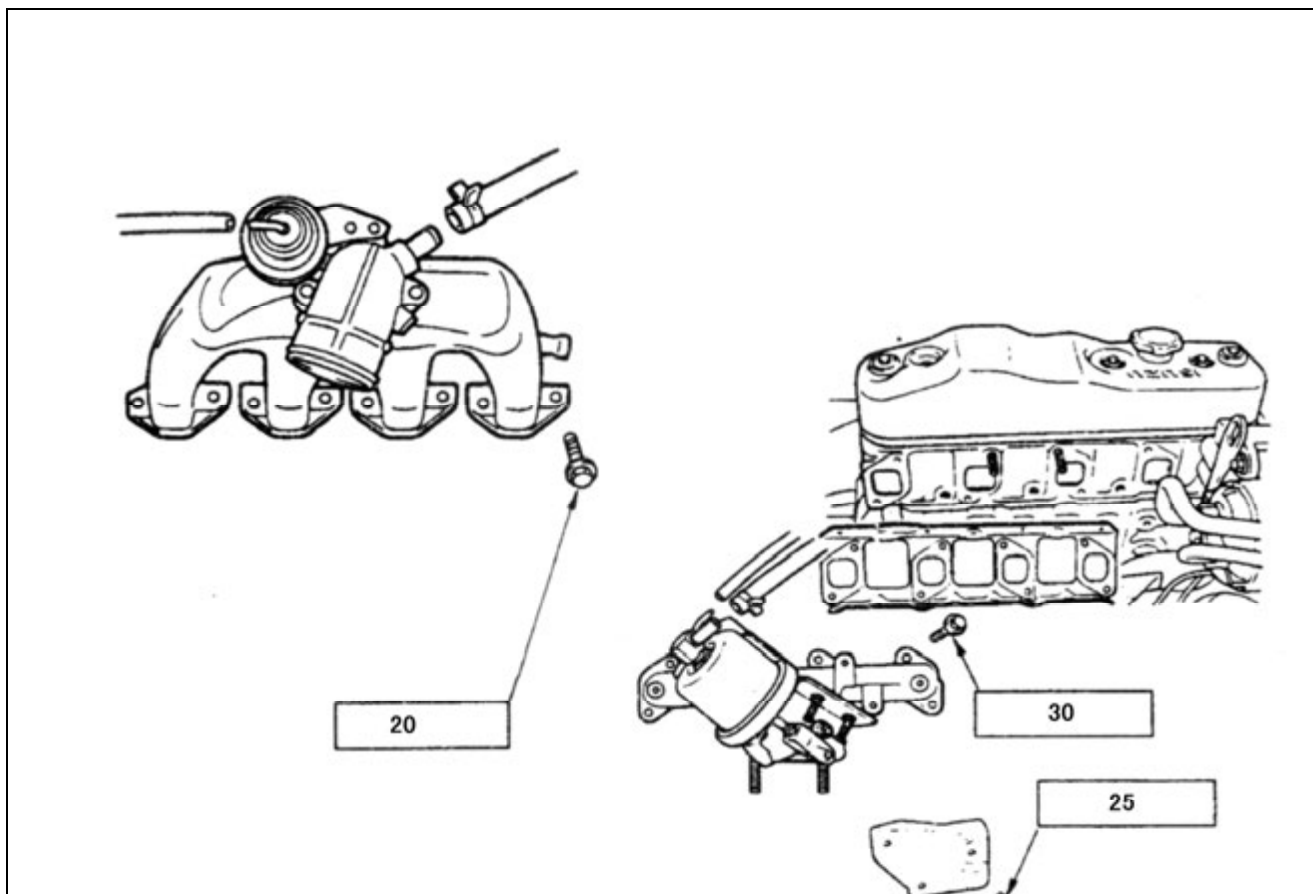


Assembly

4. Air filter element
3. Filter element wing nut
2. Filter cap
1. Filter cap wing nut



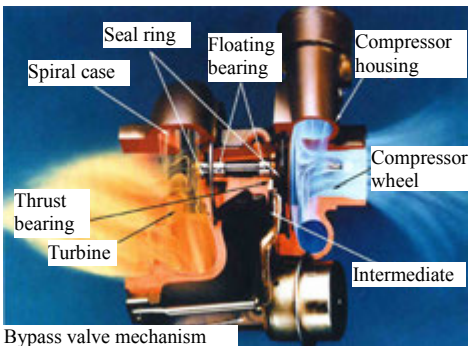
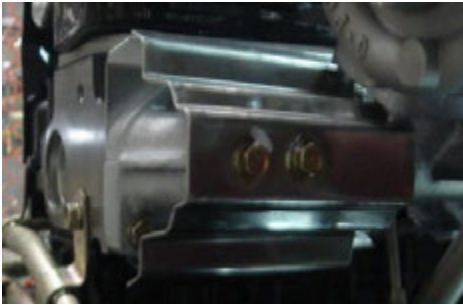
7.2 Exhaust pipe and charger assembly



Disassembly

1. Loosen the binding bolt(s) of the charger lubrication oil pipe with a wrench.





2. Unscrew the charger exhaust pipe bolt with a wrench and remove the charger exhaust pipe.

3. Remove the exhaust pipe heat insulator.

4. Remove the charger and exhaust manifold subassembly

5. Disassemble the charger assembly

Inspection

- (1) Check the airtightness and tightening of the connecting pipes between the air filter and charger and between the charger and engine intake/exhaust pipes.
- (2) Check if the fuel inlet/return hoses of the turbocharger are damaged or blocked and if the connecting bolt on the connector is tight.
- (3) Check of the oil quality and clean or replace the oil.
- (4) Check the air filter and clean or replace the element periodically.

Notes

- (1) Protect the charger return pipe from being bended or damaged.
- (2) Make sure the fuel inlet/return hoses of the charger are unblocked.
- (3) Always check the airtightness of the connecting pipes between the charger and engine.
- (4) The duration of idle state shouldn't be too +long



Compressor impeller damaged by particles



Compressor impeller damaged by solid objects



Compressor impeller damaged by dust



Turbine impeller damaged by particles

- (5) Make sure the crankcase oil pipes are unblocked.
- (6) Prevent the lower blow-by gas of the engine to be too much

Faulty diagnosis:

The purpose of faulty diagnosis is to find out the diesel fault and its reason, so as to clear the fault. If the charger has been removed, you can't carry out the faulty diagnosis. Never replace the charger before finding out the fault and clear it.

Inspect and determine whether the charger is damaged directly according to the follow items:

- A) If the charger rotor rotates smoothly.
- B) Check if the compressor wheels are damaged via the compressor inlet.
- B) Check if the compressor wheels rub with the case via the compressor inlet.

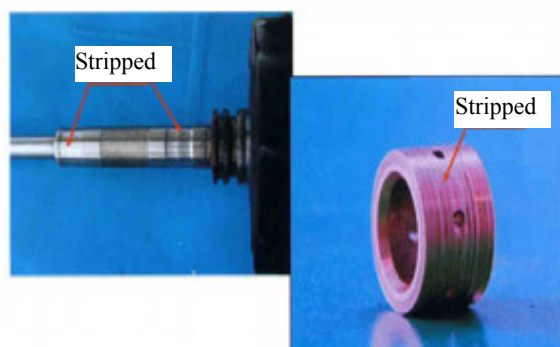
There are four main causes for charger failure:

- A) Foreign matters entering in
- B) Lubrication oil impure or aging
- C) Lack of lubrication oil
- D) Improper use and failure to maintain

A)

- ①. Compressor side:
 - a. The seal for intake pipes is poor and the air directly goes into the compressor impeller without filtering;
 - b. Replace the air filter without consulting to the regulations or use poor quality filter element;
 - c. Foreign matters enter the front intake pipes during maintenance.
- ②. Turbine side:
 - a. Some parts in the diesel cylinder are damaged.
 - b. Objects like bolts have fell into the exhaust pipes while connecting the exhaust manifold.

Any matters going into the manifold will break the charger rotor balance, which will block the rotor and break the pivot ultimately.



Damage caused by foreign matters



B) Impure lubrication oil:

- Replace the lubrication oil filter without consulting to the regulations or use poor quality filter element
- The filter element has broken down or the filter in the main diesel oil gallery has been blocked.
- Replace the lubrication oil without consulting to the regulations, and didn't clean the main diesel oil gallery before replacing the oil.
- Foreign matters have fell into the lubrication oil pipe during charger replacing or pre-fabrication.
- The sealer or gasket fragments have fell into the lubrication oil gallery.

C) Lubrication oil insufficient or aging:

- Replace the lubrication oil without consulting to the regulations or use inferior oil;
- The diesel stops abruptly after heavy-load operation without idling;
- The engine starts without idling;
- There is no pre-fabrication before replacing the charger



Assembly

- Install the charger assembly and tighten the charger union nut (remember to replace the gasket during charger installation)

Nut tighten torque	Nm
25	



4. Install the charger and exhaust manifold subassembly to the cylinder head (remember to replace the exhaust pipe gasket)

Bolt tighten torque	Nm
---------------------	----

30



3. Remove the exhaust pipe heat insulator.

Bolt tighten torque	Nm
---------------------	----

25



2. Connect the charger exhaust pipe and tighten the connecting bolt

Bolt tighten torque	Nm
---------------------	----

25



1. Connect the charger lubrication oil pipe and tighten the two punching bolts

Punching bolt II (M12) tighten torque	Nm
---------------------------------------	----

41



Punching bolt I (M14) tighten torque	Nm
--------------------------------------	----

55

Section II

Chassis