

## Repair Manuals

Turbocharger: removal/installation

### Warnings and recommendations

Allow the engine to cool down

Plug open connections with clean plugs

Remove each plug immediately before installing the component

Clean off the sealing surfaces

Renew the self-locking nuts

Renew the gaskets

Renew the seals

Renew the bolts

Renew any damaged or deformed clips

### Removal

Disconnect the battery earth cable

Remove the turbocharger heat shield

Disconnect the front exhaust pipe from the turbocharger

Front exhaust pipe: Disconnect the bracket.

Remove the air inlet hose from the turbocharger

Disconnect the turbocharger air outlet hose

Disconnect the vacuum hose from the turbocharger actuator

Remove the turbocharger oil supply line

Disconnect the turbocharger oil return line

Remove the turbocharger support

Disconnect the turbocharger from the exhaust manifold

Remove the turbocharger

### Installation

Before refitting the turbocharger, carry out the following procedure:

Check the air hoses for damage and contamination

Check the intercooler for damage and contamination

Check the engine for any additional damaged components

Check the exhaust manifold for damage; renew if necessary

Installation is in the reverse order of removal

Renew the engine oil and filter

① Engine sump, including filter 8.5 (l)

① Engine oil drain plug (Renew the seal) 30 (Nm)

Reconnect the battery earth cable

Delete all the fault codes

Run the engine until warm

Turn the engine off

Check the turbocharger for leaks

### Torque settings

Turbocharger oil supply line

① Turbocharger oil supply line (To turbocharger) 16 - 20 (Nm)

① Turbocharger oil supply line (To cylinder head) 9 (Nm)

Turbocharger oil return line

① Turbocharger oil return line (To turbocharger) 9 (Nm)

Turbocharger

① Turbocharger 30 (Nm)

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Support bracket to turbocharger: (30 Nm)

Support bracket to crankcase: (20 Nm)