

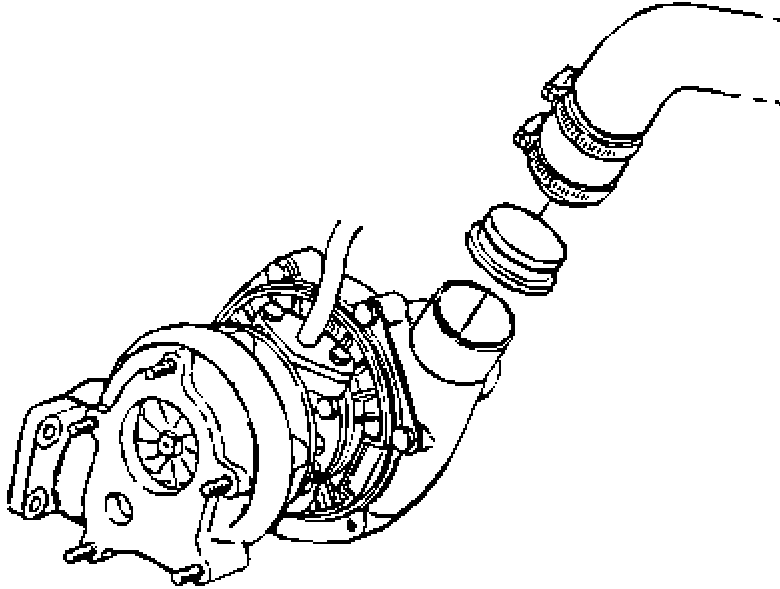
**SERVICE INFORMATION**

Bulletin Nbr: 291-1225 UTG. 2

Date:.....NOVEMBER 1998

Market: ALL

**Pressure testing the turbo system**



D291-B602

**Cars affected**

All cars with turbo.

**Background**

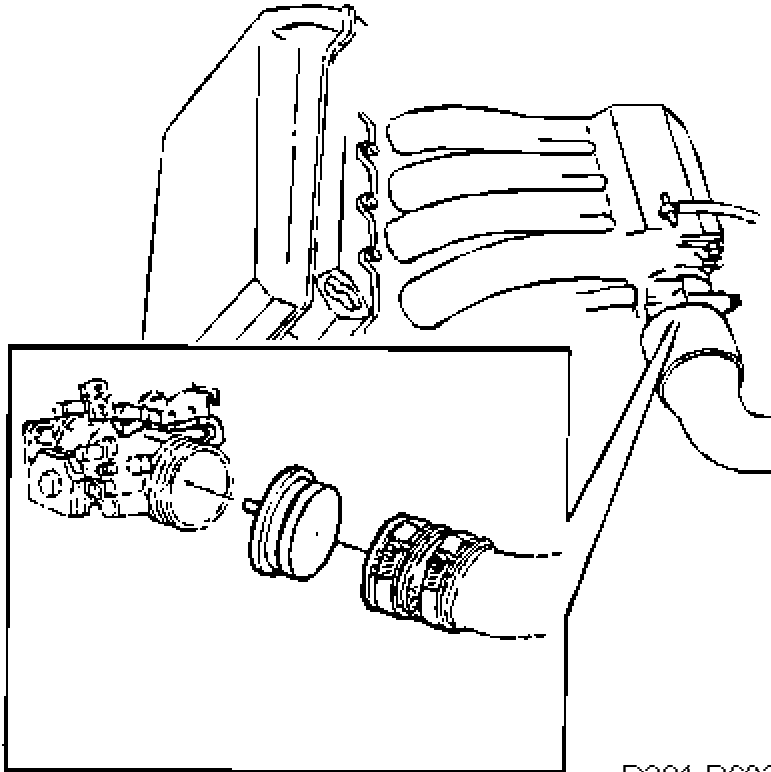
In the event of customer complaint regarding poor boost pressure or that the engine feels powerless and "sluggish", the cause may in certain cases be traced to a leak in the pressure side of the turbo system.

This SI describes methods of checking the tightness of the turbo system by putting it under a pressure of 1 bar and visually inspecting for any leaks.

The method will be described first. Subsequently, we will give suggestions for checking the intake manifold and bypass valve.

**Pressure testing**

1. Detach the pressure hose at the turbocharger and fit plug 83 94 587. Tighten the hose clip.
2. Detach the pressure hose at the throttle body and fit plug with nipple 83 94 595. Tighten the hose clip.



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3. Connect pressure gauge equipment 83 93 514 to the plug with nipple.

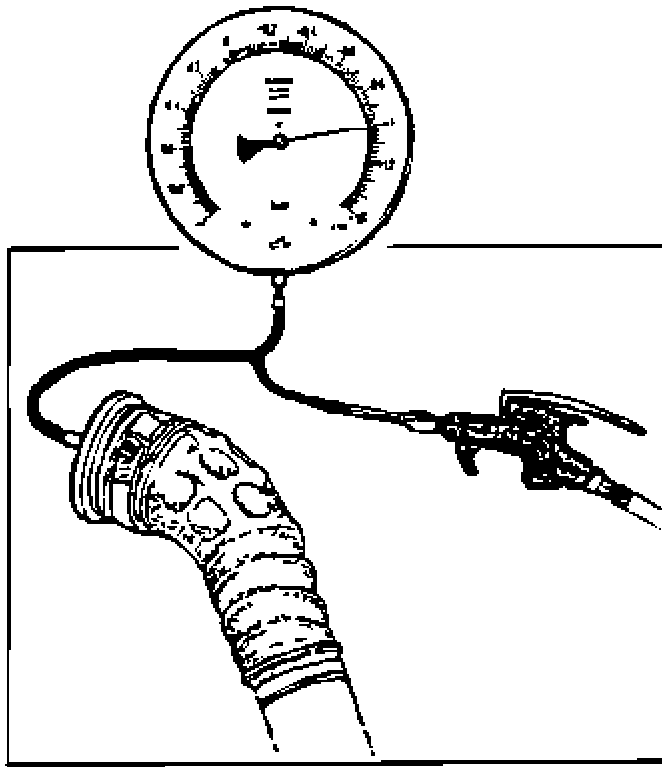
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**Important**

Observe great care when pressurizing the turbo system! Hoses and connectors can be damaged if the pressure is too high.

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4. Connect an air gun to the pressure gauge equipment and carefully build up a pressure of 1 bar in the turbo system. Make sure the pressure does not drop more than 0.1 bar / 30 seconds. If the pressure drop is greater or if a hissing noise can be heard, check the hoses, pipes and connections for possible leaks.



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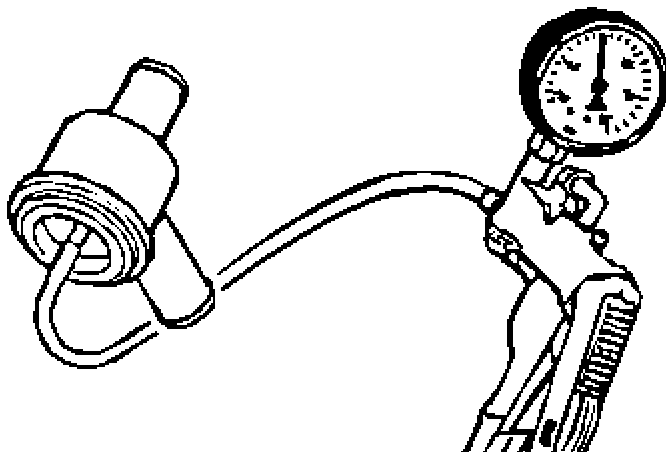
*Take care with the air gun! The pressure rises very rapidly and there is risk of damaging hoses and connectors*

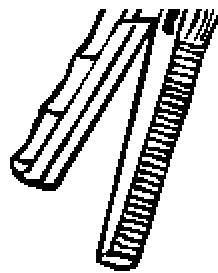
5. After completing the pressure test and inspection, disconnect the test equipment and reconnect pressure and vacuum hoses.

#### Checking turbo inlet pipe

Detach and inspect the inlet pipe and hoses between the mass air flow sensor and the turbocharger for possible cracks.

#### Checking the bypass valve

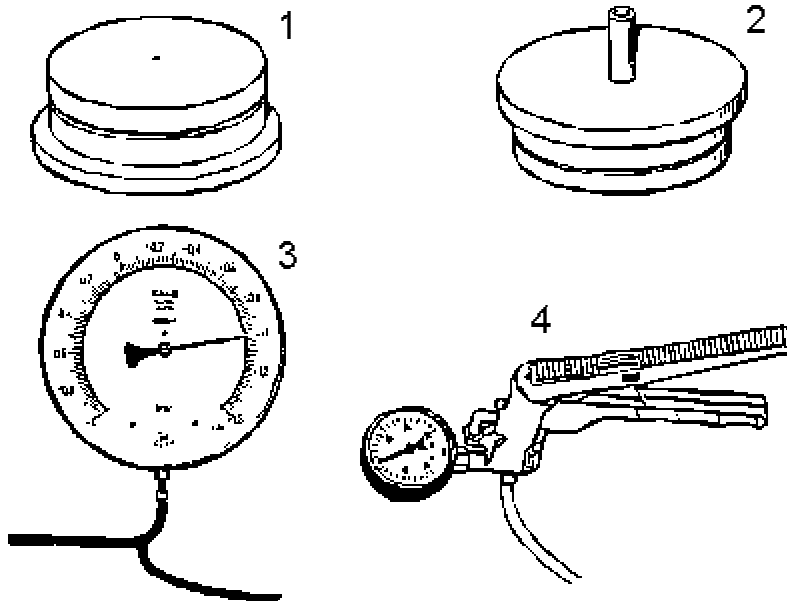




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Check the operation of the bypass valve by creating a vacuum in the valve's vacuum hose with a pressure/vacuum pump. Make sure that the valve has opened (blow!) and that the vacuum is constant (=valve diaphragm is intact).

**Special tools**



D291-B606

*The illustration shows the special tools used when pressure testing the turbo system*

1. Plug for turbo pressure hose, part no. 83 94 587
2. Ditto with nipple, part no. 83 94 595
3. Pressure gauge equipment, part no. 83 93 514

