Turbocharged engines

The Volvo S70/V70 engine program has been extended by more turbocharged variants.

The **B5234T3 (all markets)**

- Replaces the B5234T4 and the B5234T5 fitted to the Volvo 850R.
- B5234T3 has the following modifications compared to B5234T:
  - New turbocharger (TC) with larger intake area.
  - New reinforced pistons and piston ring package.
  - Control module with new software.

**Performance**

- Maximum torque is 330 Nm (243 lb.ft.) and is reached between 2700 - 5100 rpm.
- Maximum output is 176 kW (240 bhp) obtained at 5100 rpm.

**B5204T3 (Italy, Taiwan)**

- The B5204T3 is the earlier B5204T with 154 kW (210 hp) and 300 Nm, with a new turbocharger (TC) which has been adapted to the 2 liter (122 cui) engine characteristics (the turbo cuts in at a lower engine speed (RPM)).

**Performance**

- Maximum torque is 310 Nm (228 lb.ft.) and is
B5234T2 (Thailand only)
The same engine as the B5234T3, but with another control module with adapted software giving less power.

**Performance**
Maximum torque is 330 Nm (243 lb.ft.) and is reached between 2700 - 4500 rpm (previously 300 Nm).
Maximum output is 160 kW (218 bhp) obtained at 5100 rpm.

B5204T2 (Norway, Finland, Italy, Taiwan)
Modifications from earlier versions:
- New pressure regulator with weaker springs (provides reduced torque ≈ 10 Nm).
- New software in the control module (provides increased power ≈ 5 bhp).
- New ratio in final drive (manual = 4.25:1, automatic = 2.76:1).

**Performance**
Maximum torque is 220 Nm (162 lb.ft.) and is reached between 2100 - 5400 rpm.
Maximum output is 132 kW (180 bhp) obtained at 5700 rpm.

Common to 2.0 and 2.3 liter (122 and 140 cui) turbocharged engines
The following applies to all turbocharged engines and markets (from week 650):
- Engine management system, Motronic 4.4 with altitude sensor and outside temperature sensor as B5254T.
  (The outside temperature sensor has a new location beside the right air intake inside the bumper).
- EVAP system the same as the B5254T.
- Charge air cooler, the same as the B5254T (approximately 5 kPa (0.72 psi) less pressure above charge air cooler (CAC) compared to previously.)
- Turbocharger control valve (TCV), new version and location (function unchanged compared to previously).

**2.3 liter (140 cui) turbo**
"Non return" fuel injection system, as on the B5254T.

**High-pressure turbocharger**
All have the same sub-frame as the D5252T.
and AWD (= reinforced mountings for the control arms).

**Summary of technical data:**

<table>
<thead>
<tr>
<th>Engine</th>
<th>B5234T3</th>
<th>B5204T3</th>
<th>B5234T2</th>
<th>B5204T2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum power</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>176 kW (240 bhp)</td>
<td>165 kW (225 bhp)</td>
<td>160 kW (218 bhp)</td>
<td>132 kW (180 bhp)</td>
</tr>
<tr>
<td></td>
<td>obtained at 5100 rpm</td>
<td>obtained at 5700 rpm</td>
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<tr>
<td><strong>Maximum torque</strong></td>
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</tr>
<tr>
<td><strong>Maximum boost pressure</strong></td>
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<tr>
<td></td>
<td>184 ± 10 kPa (1.45 psi) at 5100 rpm</td>
<td>195 ± 10 kPa (1.45 psi) at 3000 rpm</td>
<td>175 ± 10 kPa (1.45 psi) at 3000 rpm</td>
<td>147 ± 10 kPa (1.45 psi) at 6000 rpm</td>
</tr>
<tr>
<td><strong>Cylinder diameter</strong></td>
<td>81 mm (3.19 inch)</td>
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<td>81 mm (3.19 inch)</td>
</tr>
<tr>
<td><strong>Cylinder stroke</strong></td>
<td>90 mm (3.54 inch)</td>
<td>77 mm (3.03 inch)</td>
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<td>77 mm (3.03 inch)</td>
</tr>
<tr>
<td><strong>Cylinder capacity</strong></td>
<td>2319 cm³ (142 inch³)</td>
<td>1984 cm³ (121 inch³)</td>
<td>2319 cm³ (142 inch³)</td>
<td>1984 cm³ (121 inch³)</td>
</tr>
<tr>
<td><strong>Compression</strong></td>
<td>8.5:1</td>
<td>8.4:1</td>
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<td>8.4:1</td>
</tr>
<tr>
<td><strong>Engine management system</strong></td>
<td>Motronic 4.4</td>
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</tr>
</tbody>
</table>