B  Test and Adjustment Jobs

B 1  Engine Test, Adjustment

Operation No. of Text Description and Time Allowance  ..........  07-1100

⚠️ In case of complaints regarding starting or during engine warm-up, do not bring engine to operating temperature but proceed according to the complaint.

Reading and clearing Diagnostic Trouble Code (DTC) see section “0”.

Test Steps

1. Test equipment ..................................................
   connect/disconnect according to connection diagram.
2. Engine coolant level ...........................................
   check, correct.
3. Engine oil level ............................................... 
   check, observe condition of oil (visual test).
4. Control module version (Ignition: ON) ......................
   read, only possible using HHT (Test and Adjustment Data, section A)
5. DTC’s in IFI control module (Ignition: ON) ............... 
   read using impulse counter scan tool or HHT (Test and Adjustment Data, section A)
6. Throttle control linkage .......................................
   check for free movement and condition.
6.1 Wide open throttle stop or IFI accelerator pedal position sensor 100% ....
   check using accelerator pedal, adjust with HHT (see SMS 30 - 1010).
6.2 Closed throttle (idle) stop on IFI accelerator pedal position sensor ....
   check, adjust with HHT (see SMS 30 - 1010).
6.3 Control pressure cable (AT) until 05/96 .....................
   check, adjust (see SMS 30 - 1010).
7. Engine speed (CTP) ...........................................
   check, only possible using HHT (Test and Adjustment Data, section A)
8. Start of delivery or GI value .................................
   check, not possible with HHT (Test and Adjustment Data, section A)
9. Engine coolant temperature ..................................
   check, only possible using HHT (Test and Adjustment Data, section A)
10. Fuel rack travel ..............................................
    check, only possible using HHT (Test and Adjustment Data, section A)
11. Fuel temperature .............................................
    check, only possible using HHT (Test and Adjustment Data, section A)
<table>
<thead>
<tr>
<th>Job Number</th>
<th>Description</th>
<th>Check Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Shift selector lever position P/N</td>
<td>check, only possible using HHT</td>
</tr>
<tr>
<td>13</td>
<td>Closed throttle position contact</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>14</td>
<td>IFI accelerator pedal position sensor</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>15</td>
<td>Injection quantity/stroke</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>16</td>
<td>Stop lamp switch</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>17</td>
<td>EGR</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>18</td>
<td>Pressure control flap</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>19</td>
<td>Intake line resonance flap</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>20</td>
<td>Intake manifold resonance flap</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>21</td>
<td>Intake manifold pressure</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>22</td>
<td>Barometric pressure</td>
<td>check, only possible using HHT (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>23</td>
<td>Maximum no-load engine speed</td>
<td>check, (Test and Adjustment Data, section A)</td>
</tr>
<tr>
<td>24</td>
<td>Engine running at CTP</td>
<td>check with selector lever in position “D” (parking and service brake applied) and consumers turned on.</td>
</tr>
<tr>
<td>25</td>
<td>Activations, complete EGR system incl. electrohydraulic actuator</td>
<td>check, only possible using HHT</td>
</tr>
<tr>
<td>26</td>
<td>Activation of resonance air intake system</td>
<td>check, only possible using HHT</td>
</tr>
</tbody>
</table>
Connection Diagram – Test Equipment
Engine 606.912 IFI
for Test Equipment with Adapter

Figure 1
005 Exhaust gas probe
006 Opacity tester
010 Adapter
011 Alligator clamp
014 Exhaust gas funnel
015 Test cable with plug
016 Diagnostic socket
017 GIM sensor
018 Oil thermometer
021 TDC impulse sensor
030 Engine analyzer with oscilloscope
087 Hand-Held tester (HHT)
10 In-line fuel injection pump

W3 Ground (left front wheelhousing)
X11/4 Data link connector (DTC readout)
on Model 210 in left front fuse box
X12/3 Terminal block (circuit 30)
A Throttle control unit
a Closed throttle position stop
b Wide open throttle stop
Connection Diagram – Test Equipment
Engine 606.912 IFI
for Test Equipment without Adapter

Figure 2

005 Exhaust gas probe
006 Opacity tester
014 Exhaust gas funnel
015 Test cable with plug
016 Diagnostic socket
017 GIM sensor
018 Oil thermometer
021 TDC impulse sensor
030 Engine analyzer with oscilloscope
087 Hand-Held Tester (HHT)
10 In-line fuel injection pump

W3 Ground (left front wheelhousing)
X11/4 Data link connector (DTC readout)
on Model 210 in left front fuse box
X12/3 Terminal block (circuit 30)

A Throttle control unit
a Closed throttle position stop
b Wide open throttle stop
B  Test and Adjustment Jobs  Engine 606 IFI

B 1  Engine Test, Adjustment

Special Tools

<table>
<thead>
<tr>
<th>Description</th>
<th>Brand, model, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDC sensor</td>
<td>603 589 00 21 00</td>
</tr>
<tr>
<td>GI adapter</td>
<td>617 589 09 21 00</td>
</tr>
<tr>
<td>RI sensor</td>
<td>604 589 01 21 00</td>
</tr>
<tr>
<td>GI sensor</td>
<td>617 589 10 21 00</td>
</tr>
<tr>
<td>Hand-Held-Tester</td>
<td>965 589 00 01 00</td>
</tr>
<tr>
<td>Test cable</td>
<td>965 589 00 40 00</td>
</tr>
</tbody>
</table>

For use with adaptor: Engine analyzer 1)  Bear DACE

1) Available through the MBUSA Standard Equipment Program.