# Replacing the timing chain

**ENGINES 271 in MODEL 203**

1. **Retainer**
2. **Timing chain**
3. **Chain tensioner**

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 1 | **Remove** | **Danger!**  
Risk of injury caused by fingers being jammed or pinched when removing, installing or aligning hoods, doors, trunk lid/rear-end door or sliding roof.  
Open engine hood and raise to vertical position.  
When moving components, ensure that no body parts or limbs are within the operating range of moving parts. |
| 2 | **Remove** | **Danger!**  
Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries  
Disconnect ground cable from battery  
Notes on battery  
No fire, sparks, open flames or smoking.  
Wear acid-resistant gloves, clothing and goggles. Pour battery acid only into suitable and appropriately marked containers. |
| 3 | **Remove** | **AP**  
Remove ignition coils  
Remove spark plugs  
Replace spark plugs |
| 4 | **Remove** | **AP**  
Remove cylinder head cover  
Remove alternator  
Remove chain tensioner (3) |
| 5 | **Install** | **AP**  
Mount retainer (1) onto cylinder head.  
Cover timing case recess and cylinder head with clean rag.  
Retainer  
Case  
Chain separating tool  
Pressure screw  
Thrust pins |
| 6 | **Install** | **AP**  
Draw in new timing chain  
Take rag out of timing case recess and cylinder head. Otherwise when cranking the engine, this can be drawn into the timing case recess.  
Retainer  
Case  
Assembly link |
| 7 | **Install** | **AP**  
Rivet new timing chain  
Cover timing case recess and cylinder head with clean rag.  
Case  
Riveting tool  
Assembly inserts |
| 8 | **Install** | **AP**  
Install chain tensioner (3)  
AR05.10-P-7800QK |
13 Check basic position of camshafts
14 Install generator
15 Dismount retainer (1)
16 Install cylinder head cover
17 Install spark plugs
Replace spark plugs
18 Install ignition coils
19 Connect ground cable to battery
20 Close engine hood

Timing chain, chain tensioner

<table>
<thead>
<tr>
<th>Number</th>
<th>Designation</th>
<th>Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA05.10-P-1002-01F</td>
<td>Bolt of rivet element in timing chain (reference value)</td>
<td>271</td>
</tr>
</tbody>
</table>

| 271 589 01 40 00 | Retainer                                      |
| 602 589 00 98 00 | Case                                          |
| 602 589 02 33 00 | Chain separating tool                         |
| 602 589 04 63 00 | Thrust spindle                                |
| 602 589 04 63 01 | Pressure pins                                 |
| 602 589 00 39 00 | Riveting tool                                 |
| 271 589 09 63 00 | Assembly link                                 |
| 271 589 01 63 00 | Assembly inserts                              |