Telephone:
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Important note

Important note

The intervals and procedures given are subject to alteration by the manufacturer at any time. Check the regularly updated Timing Belts section on our website to ensure that you are kept informed of any changes that may occur between issues of the Autodata CD.
http://www.autodata-cd.com

Timing belt replacement intervals

Where possible the recommended intervals have been compiled from vehicle manufacturers' information. In a few instances no recommendation has been made by the manufacturer and the decision to replace the belt must be made from the evidence of a thorough examination of the condition of the existing belt.

Apart from the visible condition of the belt, which is explained fully in the General Instructions/Toothed Timing Belts section, there are several other factors which must be considered when checking a timing belt:

1. Is the belt an original or a replacement.
2. When was the belt last replaced and was it at the correct mileage.
3. Is the service history of the vehicle known.
4. Has the vehicle been operated under arduous conditions which might warrant a shorter replacement interval.
5. Is the general condition of other components in the camshaft drive, such as the tensioner, pulleys, and other ancillary components driven by the timing belt, typically the water pump, sound enough to ensure that the life of the replacement belt will not be affected.
6. If the condition of the existing belt appears good, can you be satisfied that the belt will not fail before the next check or service is due.
7. If the belt does fail, have you considered the consequences. If the engine is an INTERFERENCE type then considerable expensive damage may well be the result.
8. The cost of replacing a belt as part of a routine service could be as little as 5 to 10% of the repair cost following a belt failure. Make sure your customer is aware of the consequences.
9. If in doubt about the condition of the belt - RENEW it.
10. Refer to the Toothed Timing Belts/Service Replacement section for further information relating to arduous or adverse operating conditions, inspection and service replacement.

Replacement Interval Guide

Replacement Interval Guide

Toyota recommend replacement every 60,000 miles or 6 years.

The previous use and service history of the vehicle must always be taken into account.

Check For Engine Damage

Check For Engine Damage

CAUTION: This engine has been identified as an INTERFERENCE engine in which the possibility of valve-to-piston damage in the event of a timing belt failure is MOST LIKELY to occur. A compression check of all cylinders should be performed before removing the cylinder head(s).

Repair Times - hrs

Repair Times - hrs

Avensis Verso/ Picnic/SportsVan 2,0 D-4D 2001-06	
Remove and install	1,40

Special Tools

Special Tools

- Crankshaft pulley holding tool - Toyota No.09213-54015.
- Puller - Toyota No.09950-50012.

Special Precautions

Special Precautions

- Disconnect battery earth lead.
- DO NOT turn crankshaft or camshaft when timing belt removed.
- Remove glow plugs to ease turning engine.
- Turn engine in normal direction of rotation (unless otherwise stated).
- DO NOT turn engine via camshaft or other sprockets.
- Observe all tightening torques.

Removal

Removal

1. Remove auxiliary drive belt.

2. Hold crankshaft pulley. Use tool No.09213-54015.
3. Remove:
   - Crankshaft pulley bolt [1] .
   - Crankshaft pulley [2] . Use tool No.09950-50012.
   - Timing belt cover [3] .

4. Previa/RAV4: Remove auxiliary drive belt tensioner pulley.
5. Remove:
   - Timing belt cover [4] .
   - Crankshaft sprocket guide washer [5] .

6. Support engine.
7. Remove:
   - RH engine mounting.
   - RH engine mounting bracket [6] .

8. Temporarily fit crankshaft pulley bolt [1] .
9. Turn crankshaft clockwise to TDC on No.1 cylinder. Ensure timing marks aligned [7] & [8] .
   NOTE: Mark fuel pump sprocket, timing belt and casing [9] .
10. Remove:
    - Automatic tensioner unit bolts [10] & [11] .
    - Automatic tensioner unit [12] .
    - Timing belt.

    NOTE: Mark direction of rotation and position of sprockets on belt with chalk if belt is to be reused.

Installation

Installation

1. Check and reset automatic tensioner unit as follows:
   - Check tensioner body for leakage or damage. Replace if necessary.
   - Keep automatic tensioner unit upright. Push pushrod against a firm surface [13] . If pushrod moves: Replace automatic tensioner unit.
   - Check pushrod protrusion is 9-10,6 mm [14] . If not: Replace automatic tensioner unit.
   - Slowly compress pushrod into tensioner body until holes aligned [15] . Use a press [16] .
   - Retain pushrod with suitable pin through hole in tensioner body [17] .

   NOTE: DO NOT exceed 1000 kg force.
2. Ensure timing marks aligned [7] & [8] .
   NOTE: Ensure timing marks aligned [9] .
3. Fit timing belt in clockwise direction, starting at camshaft sprocket. Ensure belt is taut on non-tensioned side.
4. Install automatic tensioner unit to cylinder block [12] .
5. Fit automatic tensioner unit bolt [11] . Tighten bolt finger tight.
6. Turn automatic tensioner unit clockwise. Fit automatic tensioner unit bolt [10] . Tighten bolt finger tight.
7. Tighten bolts evenly to 21 Nm [10] & [11] .
8. Remove pin from tensioner body [17] .
9. Turn crankshaft slowly two turns clockwise to TDC on No.1 cylinder. Ensure timing marks aligned [7] & [8] .
   NOTE: Ensure timing marks aligned [9] .
10. If not: Repeat installation and tensioning procedures.
11. Remove crankshaft pulley bolt [1] .
12. Install components in reverse order of removal.
13. Tighten crankshaft pulley bolt [1] . Tightening torque: 180 Nm.