

Vehicle	VAUXHALL / Astra 1.9 CDTi / 09/2005 - / Squareback/hatchback limousine
Country of manufacture	GB
Cubic capacity/Power	1.9 / 74 kW
Motor tag	Z 19 ...
RB key	VAU 664

Replacement Interval Guide

⌘ Vauxhall recommend replacement as follows:

2004MY:

Replacement every 80,000 miles or 6 years, whichever occurs first.

2005MY→:

Replacement every 100,000 miles or 10 years, whichever occurs first.

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

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.

Repair Times - hrs

Remove & install:	
Vectra-C/Signum	2,10
Astra-H	1,20
Zafira-B	1,20

Special Tools

⌘ Auxiliary drive belt tensioner locking tool - Kent Moore No.KM-6349.
⌘ Crankshaft timing tool - No.EN-46788.
⌘ Engine support and alignment tool 1 - Kent Moore No.KM-6313.
⌘ Engine support and alignment tool 2 - Kent Moore No.KM-6313-100.

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

1. Remove:
 - ⌘ Engine top cover.
 - ⌘ Air filter housing.
2. Raise and support vehicle.
3. Remove:
 - ⌘ RH wheel.
 - ⌘ RH inner wing panel.
 - ⌘ Engine undershield.
4. Fit engine support and alignment tools. Tool No.KM-6313 & KM-6313-100.
5. Turn auxiliary drive belt tensioner clockwise to release tension on belt. Use suitable spanner.
6. Lock auxiliary drive belt tensioner [1] . Use tool No.KM-6349.
7. Remove:
 - ⌘ Auxiliary drive belt.
 - ⌘ Auxiliary drive belt tensioner.
 - ⌘ Auxiliary drive belt guide pulley.
- NOTE: Mark direction of rotation on belt with chalk if belt is to be reused.**
8. Remove:
 - ⌘ Crankshaft pulley bolts [2] .
 - ⌘ Crankshaft pulley [3] .
9. Lower vehicle.
10. Remove:
 - ⌘ RH engine mounting [4] .
 - ⌘ Timing belt cover [5] .
 - ⌘ RH engine mounting bracket [6] .
11. Detach crankcase breather hose from cylinder head.
12. Turn crankshaft to TDC on No.1 cylinder.
13. Ensure camshaft sprocket timing marks aligned [7] .
14. If camshaft sprocket timing marks not aligned: Turn crankshaft one turn clockwise.
15. Remove oil pump bolt. Insert stud of crankshaft timing tool [8] . Tool No.EN-46788.

16. Fit crankshaft timing tool [9] . Tool No.EN-46788. Ensure bolt [10] located correctly in crankshaft sprocket.
17. Slacken tensioner sprocket nut [11] .
18. Remove crankshaft timing tool [9] .
19. Remove timing belt.

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

20. Remove:
 - ` Tensioner sprocket nut. Clean thread.
 - ` Tensioner sprocket.

Installation

1. Check tensioner sprocket for smooth operation.
2. Fit tensioner sprocket.
3. Fit tensioner sprocket nut [11] . Apply locking compound to thread.
4. Ensure camshaft sprocket timing marks aligned [7] .
5. Fit timing belt in clockwise direction, starting at crankshaft sprocket. Ensure belt is taut between sprockets.
6. Screw an M6 bolt into timing belt rear cover [12] .
7. Lever tensioner sprocket bracket at position [13] until pointer [14] and mark [15] aligned.
8. Tighten tensioner sprocket nut [11] . Tightening torque: 25 Nm.
9. Fit crankshaft timing tool. Tool No.EN-46788 [9] .
10. If timing tool cannot be fitted: Repeat tensioning procedure.
11. Remove crankshaft timing tool [9] .
12. Turn crankshaft two turns clockwise.
13. Ensure crankshaft timing tool can be fitted [9] .
14. Remove crankshaft timing tool.
15. Install components in reverse order of removal.
16. Tighten crankshaft pulley bolts [2] . Tightening torque: 25 Nm.
17. Tightening torques:
 - ` Engine mounting - 55 Nm [4] .
 - ` Engine mounting bracket - 50 Nm (M10) [6] .
 - ` Engine mounting bracket - 25 Nm (M6) [6] .

