Telephone: Fax: VAT Registration No.:

Important note

NOTE: Timing belt check and replacement intervals are subject to change at any time. To ensure that you are using the most up-to-date and accurate information available connect to Autodata Online. Contact your distributor about connecting to Autodata Online.

Important Note

All service items are vital to the smooth running and reliability of a vehicle, none more so than the timing belt and its associated components. For this reason we have highlighted important information from the manufacturers' service schedules covering the intervals for checks and replacements. Be sure that you make the vehicle owner aware of this information. Industry best practice is to ensure that the vehicle owner is made aware of the importance of replacing the timing belt and its associated components according to the manufacturers' specification. The service history and the use of the vehicle must be considered when deciding the correct course of action. If there is any doubt to the serviceability of the belt and its components, they should be replaced.

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

Iveco recommend: 1999 MY: Bus and ambulance models with automatic transmission - replacement every 30,000 kilometres (18,600 miles). Except bus and ambulance models with automatic transmission - replacement every 100,000 kilometres (62,000 miles). **2000 MY** \rightarrow :

Replacement every 90,000 kilometres (56,000 miles).

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.

Repair Times - hrs

Repair Times - hrs

Remove & install 2,20

Special Tools

Special Tools

- Flywheel timing pin Iveco No.99360608.
- Injection pump locking pin Iveco No.99360608.
- Clavis tension gauge.

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.
- Check diesel injection pump timing after belt replacement.

Removal

Removal

- 1. Drain coolant (if necessary).
- 2. Remove:
 - Engine undershield.
 - Radiator (if necessary).
 - Auxiliary drive belt.
- 3. Slacken crankshaft pulley bolt [1].

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4. Remove:

- Water pump pulley.
 - Air intake hoses.
 - Engine top cover [2] .
 - Timing belt upper cover [3] .
 - Crankshaft pulley bolt [1].
 - Crankshaft pulley [4] .
- 5. Turn crankshaft to TDC on No.1 cylinder. Insert timing pin in flywheel [5] . Tool No.99360608.
- 6. Ensure camshaft sprocket timing mark aligned with mark on cylinder head cover [6] . NOTE: Camshaft sprocket has TWO timing marks. Ensure correct timing mark aligned.
- 7. Insert locking pin in injection pump sprocket [7] . Tool No.99360608.
- 8. Remove:
 - Bolts [8].
 - Timing belt lower cover nut [9].
 - Timing belt lower cover [10].
- 9. Slacken tensioner nuts [11] & [12] .
- 10. Lever tensioner pulley away from belt. Insert spanner in tensioner plunger [13] .
- 11. Remove timing belt.

Installation - -2000MY

Installation - -2000MY

- 1. Ensure timing marks aligned [6] .
- 2. Ensure flywheel timing pin located correctly [5] .
- 3. Ensure injection pump locking pin located correctly [7] .
- 4. Ensure spanner fitted to tensioner plunger [13] .
- 5. Fit timing belt, starting at crankshaft sprocket. Ensure belt is taut on non-tensioned side.
- 6. Remove:
 - Spanner [13] .
 - Flywheel timing pin [5].
 - Injection pump locking pin [7].
- 7. Tension belt as follows:
- 8. Turn crankshaft three turns clockwise. Maintain turning force on crankshaft to tension belt.
- 9. Ensure timing pin can be inserted in flywheel [5] .
- 10. Tighten tensioner nut [12] . Tightening torque: 37-45 Nm.
- 11. Tighten tensioner nut [11] . Tightening torque: 37-45 Nm.
- 12. Apply a load of 10 kg to belt at $\overline{\mathbf{W}}$. Belt should deflect 7-8 mm.
- 13. Install components in reverse order of removal.
- 14. Tighten crankshaft pulley bolt [1] . Tightening torque: 200 Nm.
- 15. Refill cooling system (if necessary).

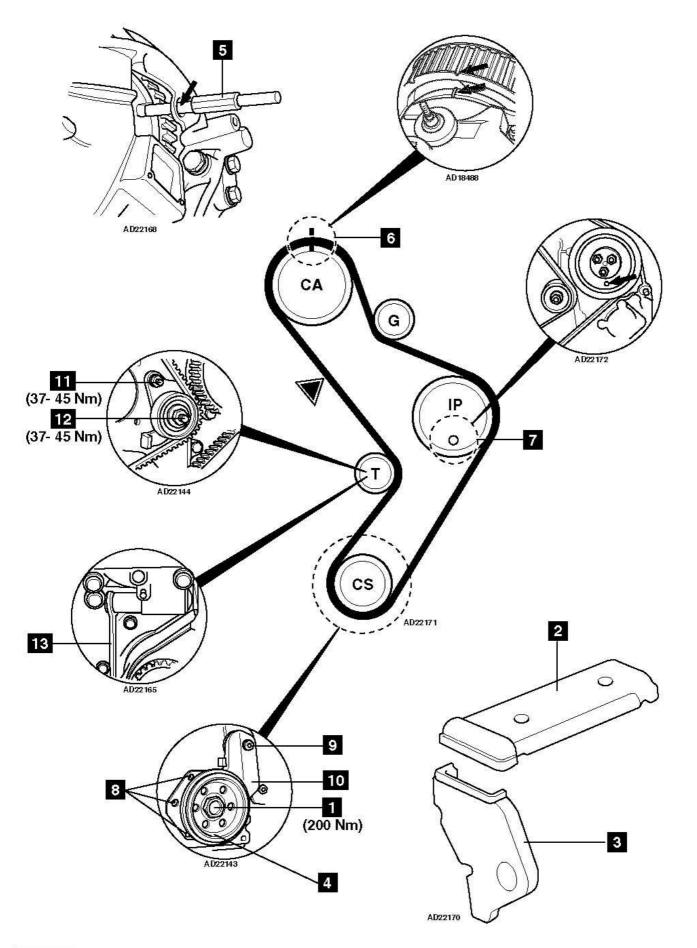
Installation - 2000MY- (HSN belt)

Installation - 2000MY- (HSN belt)

- 1. Ensure timing marks aligned [6] .
- 2. Ensure flywheel timing pin located correctly [5] .
- 3. Ensure injection pump locking pin located correctly [7] .

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- 4. Ensure spanner fitted to tensioner plunger [13] .
- 5. Fit timing belt, starting at crankshaft sprocket. Ensure belt is taut on non-tensioned side.
- 6. Remove:
 - Spanner [13] .
 - Flywheel timing pin [5].
 - Injection pump locking pin [7].
- 7. Tension belt as follows:
- 8. Turn crankshaft two turns clockwise.
- 9. Ensure timing marks aligned [6] .
- 10. Ensure timing pin can be inserted in flywheel [5] .
- 11. Ensure injection pump locking pin can be inserted easily [7] .
- 12. Temporarily fit crankshaft pulley bolt [1] .
- 13. Apply clockwise torque of 28-30 Nm to crankshaft pulley bolt to tension belt. NOTE: Ensure camshaft sprocket timing mark [6] is still aligned.
- 14. Tighten tensioner nut [12] . Tightening torque: 37-45 Nm.
- 15. Tighten tensioner nut [11] . Tightening torque: 37-45 Nm.
- 16. Attach tension gauge to belt at $\overline{\mathbf{W}}$. Tension gauge should indicate 88-112 Hz.
- 17. Remove crankshaft pulley bolt [1] .
- 18. Install components in reverse order of removal.
- 19. Tighten crankshaft pulley bolt [1] . Tightening torque: 200 Nm.
- 20. Refill cooling system (if necessary).



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Manufacturer: lveco Engine code: 8140.47R.2790 Tuned for: Model: Turbo Daily (96-00) 2,5D 35/40.10 Output: 83 (112) 3800 Year: 1996-00 © Autodata Limited 2010 Valid forever. 2014.07.30 V8.500- /Autodata