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Important note

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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

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Fiat recommend:

Punto Euro 2 1999-00:

Replacement every 72,000 miles or 6 years.

Punto Euro 3 1999 → :

Check every 36,000 miles.

Replacement every 72,000 miles or 5 years under normal conditions.

Replacement every 72,000 miles or 3 years under adverse conditions.

Manufacturer: Fiat	Model: Bravo (95-02) 1,9D JTD	© Autodata Limited 2007
Engine code: 182B4.000	Output: 77 (105) 4000	17.8.2009 r.
Tuned for:	Year: 1998-00	V6 410- /Autodata

Brava/Bravo/Marea/Weekend/Multipla → 2000:

Replacement every 72,000 miles or 6 years.

Brava/Bravo/Marea/Weekend/Multipla 2000 → :

Check every 36,000 miles.

Replacement every 72,000 miles or 5 years under normal conditions.

Replacement every 72,000 miles or 3 years under adverse conditions.

Stilo:

Check every 36,000 miles.

Replacement every 72,000 miles or 5 years under normal conditions.

Replacement every 72,000 miles or 3 years under adverse conditions.

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

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Brava Bravo 1,9JTD 1998-02	
Remove and install	1,85

Special Tools

Special Tools

- Flywheel locking tool - Fiat No.1860898000.
- Injection pump timing pin - Fiat No.1860965000.
- Crankshaft timing tool - Fiat No.1860905000.

Special Precautions

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- 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.
- Except JTD: Check diesel injection pump timing after belt replacement.

Removal

Removal

NOTE: The high-pressure fuel pump fitted to the JTD engine does not require timing.

1. Raise and support front of vehicle.
 2. Remove:
 - RH front wheel.
 - RH inner wing panel.
 - Engine undershield.
 - Auxiliary drive belt.
 - Flywheel housing lower cover.
 3. Fit flywheel locking tool [1]. Tool No.1860898000.
 4. Remove:
 - Crankshaft pulley bolts [2].
 - Crankshaft pulley [3].
 - Flywheel locking tool [1].
 - Timing belt lower cover.
 - Engine steady bar and bracket.
 - Timing belt upper cover.
 5. Turn crankshaft clockwise to TDC on No.1 cylinder. Ensure pin on crankshaft sprocket aligned centrally with cylinder block [4].
 6. Ensure camshaft sprocket timing marks aligned [5].
 - To engine No.416 449: Camshaft sprocket timing mark seven teeth behind cylinder head cover timing mark. Three teeth in front of cylinder head cover lower edge [15].
- NOTE: Camshaft sprocket timing mark position can be offset by approximately 3° or 1/2 tooth.**
- From engine No.416 450: Ensure timing marks aligned [16].
7. If timing marks not aligned: Turn crankshaft one turn clockwise.
 8. Slacken tensioner sprocket nut [6]. Move tensioner sprocket away from belt. Lightly tighten nut.
 9. Remove timing belt.

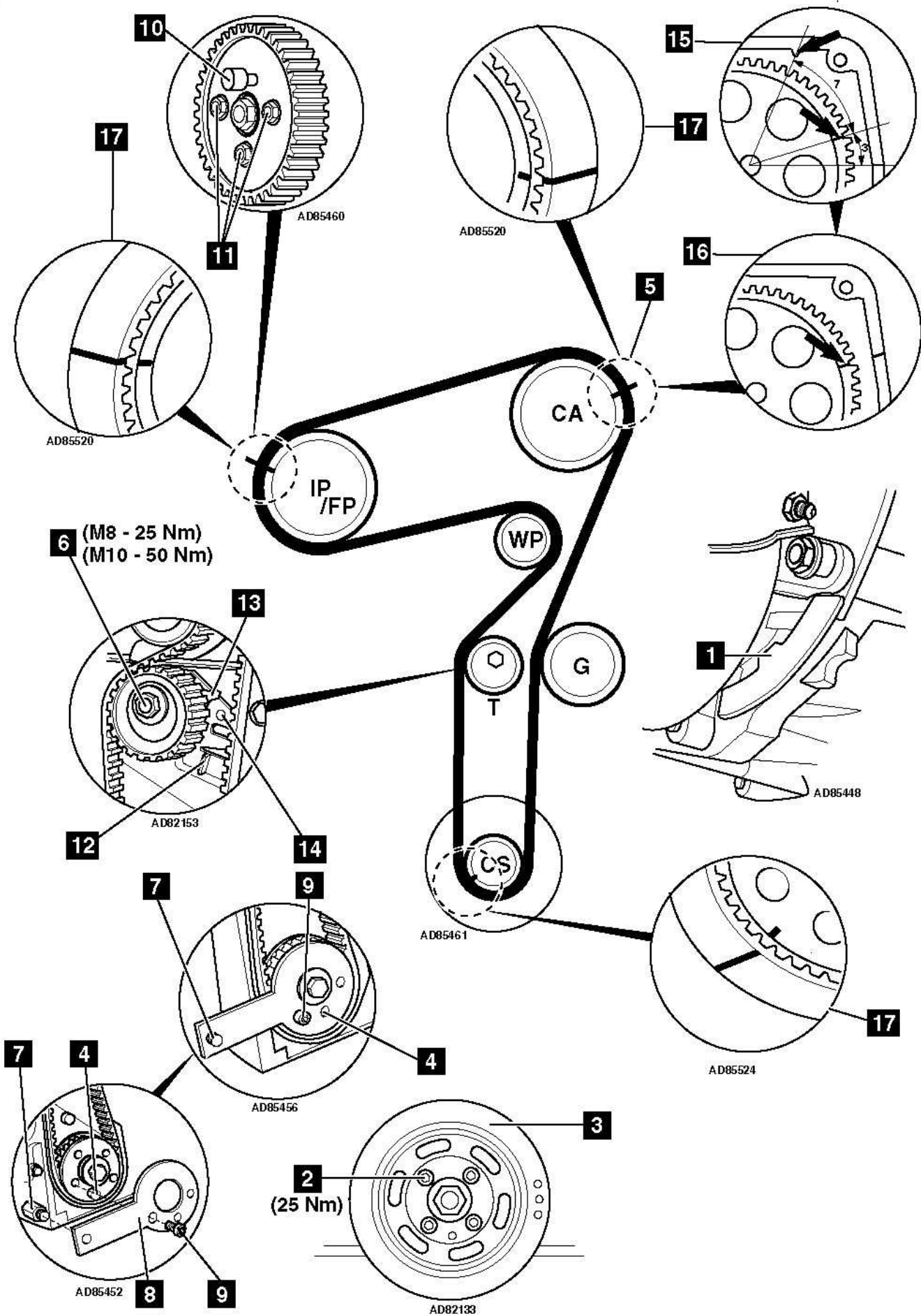
Installation

Installation

1. Ensure pin on crankshaft sprocket aligned centrally with cylinder block [4] .
 2. Remove oil pump bolt. Insert stud of crankshaft timing tool [7] . Tool No.1860905000.
 3. Fit timing belt to crankshaft sprocket.

NOTE: Observe direction of rotation marks on belt.
 4. Fit timing tool to crankshaft sprocket [8] . Tool No.1860905000. Ensure pin on crankshaft sprocket located correctly in tool [4] . Secure with bolt [9] .
 5. Ensure camshaft sprocket timing marks aligned [5] .
 6. Except JTD: Insert timing pin in injection pump sprocket [10] . Tool No.1860965000. Slacken bolts [11] .
 7. Fit timing belt in following order:
 - Guide pulley.
 - Camshaft sprocket.
 - High-pressure fuel pump/injection pump sprocket.
 - Tensioner sprocket.
 - Water pump pulley.
 8. Ensure timing belt marks aligned:
 - JTD: Camshaft sprocket [17] .
 - Except JTD: Camshaft and injection pump sprockets [17] .
- NOTE: Ensure belt is taut between sprockets on non-tensioned side.**
9. Slacken tensioner sprocket nut [6] .
 10. Lever tensioner sprocket bracket at position [12] until pointer [13] at maximum setting.
 11. Tighten tensioner sprocket nut [6] :
 - M8 nut: 25 Nm.
 - M10 nut: 50 Nm.
 12. Except JTD: Tighten injection pump sprocket bolts [11] .
 13. Remove:

- Except JTD: Timing pin [10] .
 - Timing tool [8] .
14. Fit oil pump bolt.
 15. Turn crankshaft two turns clockwise.
 16. Slacken tensioner sprocket nut [6] .
 17. Lever tensioner sprocket bracket at position [12] until pointer [13] and mark [14] aligned.
 18. Tighten tensioner sprocket nut [6] :
 - M8 nut: 25 Nm.
 - M10 nut: 50 Nm.
 19. Install components in reverse order of removal.
 20. Tighten crankshaft pulley bolts [2] . Tightening torque: 25 Nm.



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