FIAT

Model:	Bravo 2,0 20V • Marea 2,0 20V • Marea Weekend 2,0 20V Coupe 2,0 20V • Coupe 2,0 20V Turbo
Year:	1994-98
Engine Code:	182 A1.000, 175 A3.000

Replacement Interval Guide

Fiat recommend replacement every 72,000 miles.
The previous use and service history of the vehicle must always be taken into account. Refer to General Instructions at the front of this manual.

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

Information not available.

Special Tools

- Dial gauge and adaptor - No.1895879000.
- Camshaft locking tools - No.1860892000.

Special Precautions

- Disconnect battery earth lead.
- Do NOT turn crankshaft or camshaft when timing belt removed.
- Remove spark or 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

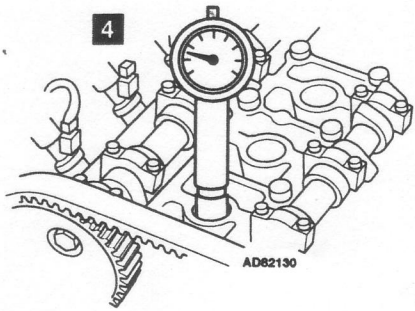
NOTE: Timing belt cannot be replaced with engine installed in vehicle.

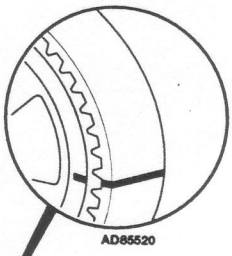
1. Raise and support front of vehicle.
2. Remove engine undershield and drain coolant.
3. Disconnect hoses, wiring and ancilliaries and remove engine from chassis.
   NOTE: Engine is removed from below vehicle.
4. Place engine on suitable stand or cradle.
5. Remove:
   - ❑ Auxiliary drive belt(s).
   - ❑ Crankshaft pulley bolts 1.
   - ❑ Crankshaft pulley 2.
   - ❑ Timing belt cover 3.
   - ❑ Spark plugs.
6. Fit dial gauge and adaptor tool No.1895879000 to No.1 cylinder 4.
7. Turn crankshaft clockwise to TDC on No.1 cylinder, check crankshaft timing marks 5 aligned.
8. Ensure both camshafts at TDC on No.1 cylinder, if not turn crankshaft one turn clockwise.
9. Remove No.3 cylinder inlet 6 and No.2 cylinder exhaust 7 camshaft bearing caps.
   NOTE: Mark caps before removal for identification.
10. Fit tool Nos.1860892000 in place of caps 6 & 7.
    NOTE: Tools are marked 'A' (inlet) and 'S' (exhaust). Ensure tools align with respective cam profiles to prevent damage.
11. Slacken automatic tensioner pulley locknut 8 to release tension on belt.
12. Remove timing belt.

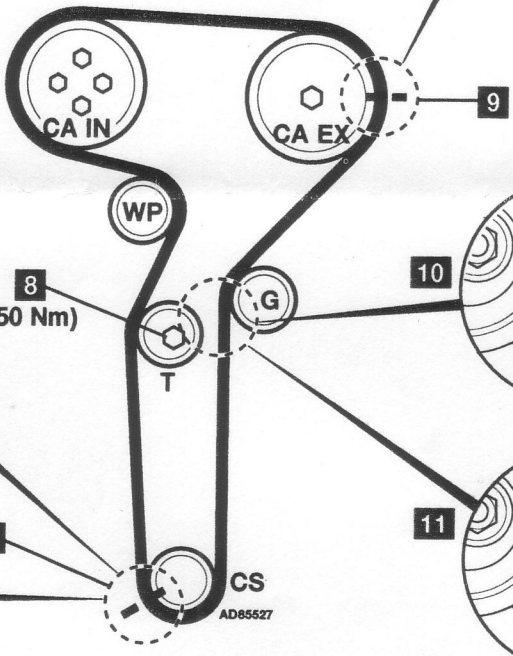
Installation

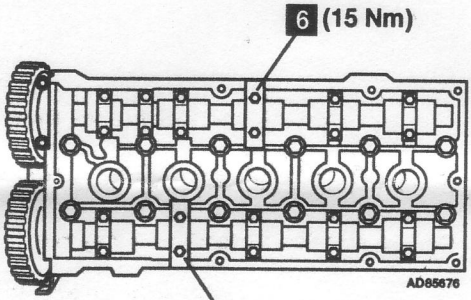
1. Ensure crankshaft at TDC on No.1 cylinder using dial gauge 4 with timing marks 5 aligned.
2. Ensure camshaft locking tools located 6 & 7.
3. Install timing belt in the following order, starting at crankshaft sprocket and keeping belt taut between sprockets and pulleys:
   - ❑ Guide pulley.
   - ❑ Exhaust camshaft sprocket.
   - ❑ Inlet camshaft sprocket.
   - ❑ Automatic tensioner pulley.
   - ❑ Coolant pump pulley.

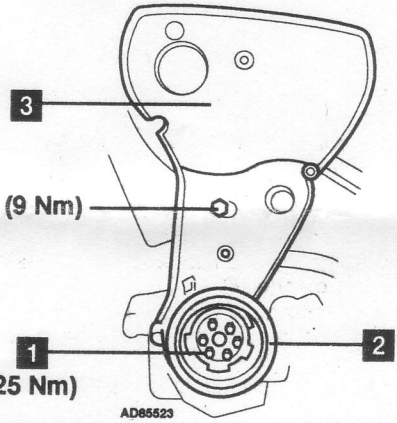
   NOTE: Ensure belt marks align with marks on crankshaft and exhaust camshaft sprockets 11 and 'arrow' on belt pointing in direction of rotation.
4. Using suitable lever push against lug on tensioner until tensioner at maximum tension 10.
5. Tighten automatic tensioner pulley locknut 8 to 50 Nm.
6. Remove camshaft locking tools 6 & 7, replace caps and tighten cap retaining bolts to 15 Nm.
7. Turn crankshaft two turns clockwise to TDC on No.1 cylinder, check timing marks 5 aligned and belt marks aligned with sprocket marks 9.
8. Hold tensioner with lever at lug and slacken automatic tensioner pulley locknut.
9. Using lever, align tensioner pointer with mark 11 and tighten automatic tensioner pulley locknut 8 to 50 Nm.
10. Install timing cover and tighten retaining bolts to 9 Nm.
11. Install crankshaft pulley and tighten retaining bolts 1 to 25 Nm.
12. Install components in reverse order of removal.
13. Install engine to chassis, reconnect hoses, cables and ancilliaries.
14. Refill cooling system with fresh coolant and bleed system.


4
AD82130


AD85520


CA IN
CA EX
9
WP
8
(50 Nm)
T
G
10
AD85521
AD85525
5
CS
AD85527
11
AD85522
AD85524
9


6 (15 Nm)
AD85676
7 (15 Nm)


3
(9 Nm)
1
(25 Nm)
2
AD85523

AD11008