

Telephone:
Fax:
VAT Registration No.:

Name:	4x4Community	Manufacturer:	Mitsubishi
Address:		Model:	Pajero 3.5 V6
		Year:	2000
		Registration:	
Tel - Private:		Mileage:	100000
Tel - Business:		Job number:	

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

The information relating to timing belt replacement intervals is additional to the main purpose of this CD, but is included to provide guidance to garages and for customer advice.

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 later in this 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

Manufacturer: Mitsubishi

Model: Shogun/Pajero/Montero (91-00) 3,5

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Engine code: 6G74

Output: 142 (192) 5000

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V5.373-

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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.

Replacement Interval Guide

Replacement Interval Guide

Mitsubishi recommend replacement every 54,000 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

Shogun Pajero 3,5 24V 1994-01	
Remove and install	3,10
Remove and install - AC	3,40
Remove and install - PAS	3,40

Special Tools

Special Tools

- Tensioner pulley tool - Mitsubishi No.MB998767.
- Crankshaft pulley holding tool - Mitsubishi No.MB991800.
- Crankshaft pulley holding tool pins - Mitsubishi No.MB991802.

Special Precautions

Special Precautions

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

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- Observe all tightening torques.

Removal

Removal

1. Remove:
 - Radiator.
 - Engine undershield.
 - Air filter.
 - Engine upper cover (if fitted).
 - Cooling fan.
 - Auxiliary drive belts.
 - Auxiliary drive belt tensioner.
 - RH engine lifting eye.
 - Cooling fan pulley.
 - Alternator.
 - AC compressor.
 - PAS pump. DO NOT disconnect hoses.
 - Component mounting plate and support.
 - Battery and battery tray.
 - Crankshaft position (CKP) sensor.
 - Crankshaft pulley bolt [1]. Use tool No.MB991800/MB991802.
 - Crankshaft pulley [2].
 - Timing belt upper cover [3].
 - Timing belt lower cover [4].
2. Turn crankshaft to TDC on No.1 cylinder. Ensure crankshaft timing mark aligned [5].
3. Ensure camshaft timing marks aligned:
 - → 2000 (A) [6].
 - 2000 → (B) [6].
4. Slacken tensioner pulley bolt [7]. Move tensioner pulley away from belt. Lightly tighten bolt.
5. Remove:
 - Timing belt.
 - Automatic tensioner unit [8].
 - Tensioner pulley.

Installation

Installation

NOTE: If camshaft sprockets are not aligned: Turn crankshaft sprocket 3 teeth clockwise (ATDC) to avoid valves touching pistons during alignment operation. If a camshaft sprocket of one bank has been aligned and other sprocket is turned too far in either direction (approximately one turn) then valve to valve contact will occur. Always align sprockets carefully to avoid damage.

1. Check tensioner body for leakage or damage. Replace if necessary.
2. Push pushrod of automatic tensioner unit against a firm surface using a force of 10-20 kg. Pushrod should move less than 1,0 mm.
3. Slowly compress pushrod into tensioner body until holes aligned. Gently compress automatic tensioner unit [8]. Use suitable press or vice.

NOTE: Use a suitable washer to protect tensioner body end screw when using press.

4. Retain pushrod with 1,4 mm diameter pin through hole in tensioner body [9].
5. Install automatic tensioner unit. Tighten bolts to 24 Nm.

6. Fit tensioner pulley with pin hole towards the top [11]. Lightly tighten bolt [7].
7. Ensure timing marks aligned:
 - ➔ 2000 (A) [6].
 - 2000 ➔ (B) [6].
8. ➔ 2000: Align crankshaft timing mark [5]. Turn crankshaft one tooth clockwise.
9. ➔ 2000: Fit timing belt in clockwise direction, starting at camshaft sprocket (CA1). Ensure belt is taut between sprockets.
2000 ➔ : Fit timing belt in anti-clockwise direction, starting at crankshaft sprocket. Ensure belt is taut between sprockets.
- NOTE: To assist installation of belt, suitable paper clips [10]18194 can be used to retain belt on sprockets.**
10. ➔ 2000: Turn crankshaft anti-clockwise until timing mark aligned [5].
11. 2000 ➔ : Turn camshaft sprockets CA1 & CA2 anti-clockwise to tension belt.
12. Ensure timing marks aligned [5] & [6].
13. Slacken tensioner pulley bolt [7]. Turn tensioner pulley clockwise to tension belt. Use tool No.MD998767 [12]. Lightly tighten bolt.
14. Ensure timing marks aligned [6].
15. Remove paper clips [10].
16. Turn crankshaft 1/4 turn anti-clockwise.
17. Turn crankshaft clockwise until timing marks aligned [5] & [6].
18. Slacken tensioner pulley bolt [7].
19. Fit tool to tensioner pulley. Tool No.MD998767 [12]. Apply torque to tensioner pulley:
 - ➔ 2000: 9,4 Nm. Tighten bolt to 49 Nm (A) [7].
 - 2000 ➔ : 4,4 Nm. Tighten bolt to 42-54 Nm (B) [7].
20. Remove pin from tensioner body. Ensure pin can be withdrawn easily.
21. Turn crankshaft two turns clockwise. Wait 5 minutes.
22. Check 1,4 mm diameter pin may be entered and withdrawn easily. Check pushrod protrusion is:
 - ➔ 2000: (A) 3,8-4,5 mm [13].
 - 2000 ➔ : (B) 3,8-5,0 mm [13].
23. If not: Repeat operations 13-19.
24. Install components in reverse order of removal.
25. Tighten crankshaft pulley bolt [1]:
 - ➔ 2000: (A) Tightening torque: 180-190 Nm.
 - 2000 ➔ : (B) Tightening torque: 178-186 Nm.

