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DAYCO AFTERMARKET
TECHNICAL INFORMATION

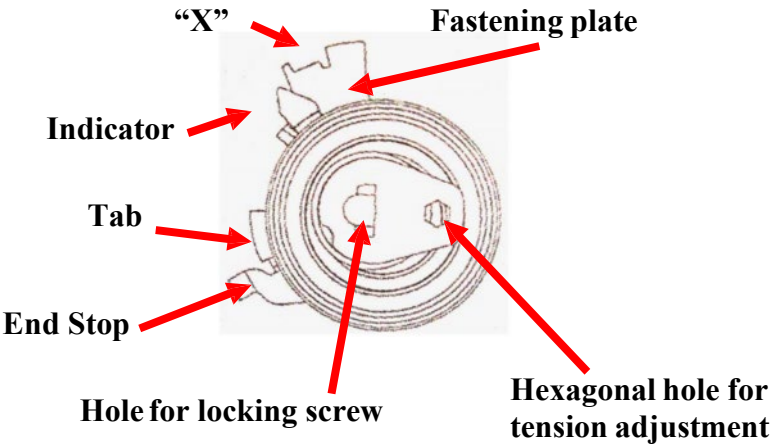
Subject:

T00001

TENSIONER ASSEMBLY
KTBA005, KTBA093, KTBA122, KTBA142, KTBA149, KTBA212, KTBA244
ENGINES GM 1.6, 1.8 , 2.0 , 2.2

Engine Codes: C16SEL, C16XE, X16XE, X16XEL, Z16XE, Z16XEP, C18XE, C18XEL, X18XE, X18XE1, Z18XE, Z18XEL, X20XE, X22SE, X22XE,Y22SE.

These kits contain mechanical automatic tensioners of the **type shown in the figure**, with a few dimensional differences according to the engine code.



Below is a summary of the general basic steps to be followed for a correct assembly of the tensioner bearing.

1) The new belt and the tensioner should be fitted while the **engine is cold.**

2) During the process, if required, rotate the engine **clockwise** only**.**

3) The pulleys of the camshafts and driving shaft should not be rotated if the belt is not properly installed and tensioned.

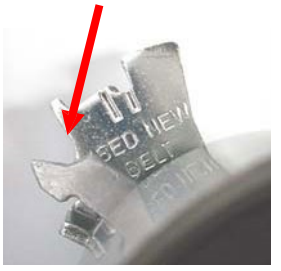
4) Make sure the **water pump is properly oriented**, by referring to the alignment of the reference marks on the pump and on the cylinder block.

5) Make sure the locking pin on the tensioner is correctly seated in the oil pump.

6) Fasten the tensioner locking bolt by hand and position the hexagonal hole at **7 o'clock,** as shown in **Fig. A**.

7) Install the new belt anticlockwise, starting from the driving shaft.

Fig. A



8) With the Allen wrench, rotate the tensioner anticlockwise until the maximum tension is obtained. The indicator should be on the right-hand side of the plate, as shown in **Fig. B**

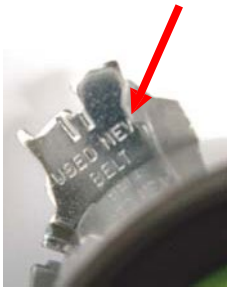


Fig. B

9) Tighten the tensioner locking bolt to **20-25Nm**

10) Unlock the camshafts, rotate the driving shaft by two turns in the engine rotation direction until the dead centre notches are aligned again.

11) Loosen the tensioner bearing, and then rotate the cam clockwise with the Allen wrench until the indicator is aligned with "X".
The hexagonal hole should be in the **5 o'clock** position, as shown in **Fig. C.**

"X"

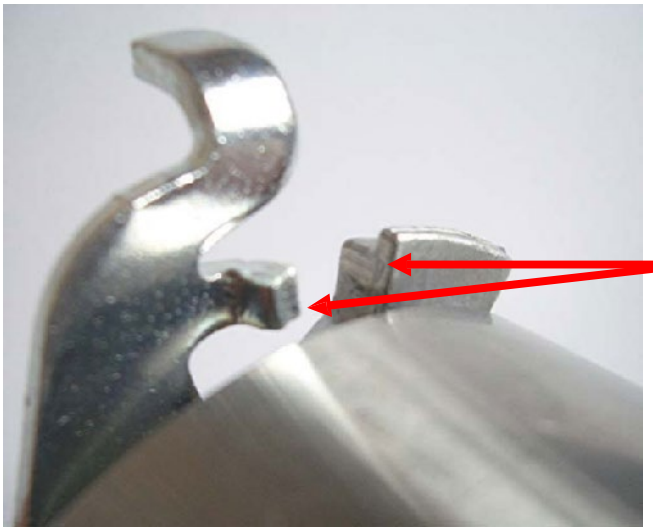
Fig. C

12) Tighten the tensioner locking bolts to **20-25Nm**

13) Unlock the camshafts; rotate the driving shaft by two turns in the engine rotation direction until the dead centre notches are aligned again.

14) Check the indicator position.
If it is correct (aligned with "X"), assemble the other parts previously removed. Otherwise, repeat the above-described operations from point 11.

Remember that rotating the tensioner bearing in the wrong direction, with the hexagonal hole in the wrong starting position, without rotating the engine by two turns before and after adjusting the tension, may result in the tensioner arm striking at the end of the stroke and producing a hammering sound until it breaks. The abnormal tension created by this situation will lead to the inevitable collapse of the timing belt.



The presence of damages on these surfaces indicates an abnormal operation of the tensioner following an incorrect assembly.

The incidence of bolt breakage after fitment is due to correct installation procedure not being followed and will not be covered under Dayco warranty.

For feedback go to
www.dayco.com.au/feedback

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