



# GT381.02

## Assembly/disassembly recommendations

<p><b>SUBARU:</b> Forester (I, II, II FL, III), Impreza (G10, G11, FL G11, GR/GV), Legacy (I, II, III, IV, V), L series Leone II, XT Coupe</p>	<p><b>ENGINES</b> XT 1800, 1.5 i, 1.6 i, 1.8, 1.8 (GL, i, GTi), 2.0 (i, STi, R, XT, X, XS), 2.5 (i, STi, STiS, CVT, XT, X, XS, Ti, WRX)</p>	<p><b>OE reference</b> 13033-AA042</p>
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### IDENTIFY ROLLER TENSIONER GT381.02



**Traceability**



## COMMON PROBLEMS

### PROBLEMS WITH BROKEN BEARINGS

#### Probable cause

##### **An incorrectly fitted timing belt.**

This breakage is characteristic of overheating on the roller tensioner, due to the contact between the belt and a fixed member of the engine.

The rise in temperature of the back causes a shift of the belt on a blocked pulley or on one of the belt guides.

The heat transfer comes from the rear of the belt (which has melted due to the friction) through to the pulley, causing an increase in temperature, which rapidly destroys the grease and bearing cages. This results in the destruction of the tensioner pulley.



### PROBLEMS WITH POOR BELT TENSION AND A BROKEN SCREW

#### Probable cause

##### **Insufficient tightening of the screw.**

The stress responsible for the screw breakage was caused by the to and fro of the roller. This is due to an insufficient tightening of the screws which failed to press the roller firmly against the engine, the screw then worked in shear rather than in tension.

The play that is then created between the roller and the engine causes a belt tension fault, as well as a misalignment thereof.



#### Consequence

After breakage, the tensioner pulley rests against the body of the tensioner, which generally leads to further destruction.

The outer ring of the bearing is thus often colored as a result of increased temperature due to contact with the belt.

**Reminder:**

- It is forbidden to compress the hydraulic cylinder horizontally.
- Never unpin the roller before complete installation of the roller and the belt.

**ADVICE**

- The recommended tightening torque is **39 Nm**
- You have to assemble the timing kit as suggested by the manufacturer's installation procedures, as the timing on these types of engines is very specific
- For assembly, use the special tool, as described below

**REPLACEMENT****Special tools**

- Sleeve - OE 4999 87500
- Thrust bearing - OE 4999 77100

**Precautions:**

- Disconnect the battery earth
- DO NOT turn the crankshaft or camshaft when timing belt has been fitted
- Remove the spark plugs to facilitate the rotation of the motor
- Rotate the engine in the normal direction of rotation (unless otherwise stated)
- DO NOT turn the engine with the camshaft or other drive gears
- Adhere to tightening torques

**Tightening torque**

**39 Nm** on all vehicles

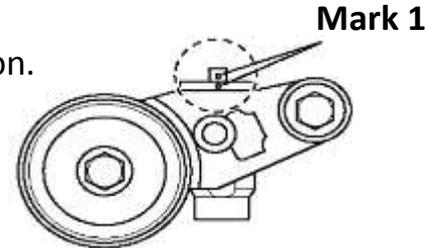


## 1) In case of early unpinning: How to reposition the locking pin on the hydraulic tensioner?

- Slowly compress the piston into the body of the hydraulic tensioner using a press until the holes are aligned (**Mark 1**)  
This operation must be carried out in a vertical position.



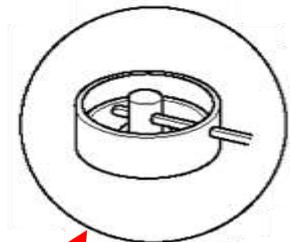
**Do not exceed a force of 1000 kg**



- Hold the piston in place by inserting a 2 mm diameter pin through the hole in the body of the tensioner (**Mark 2**).

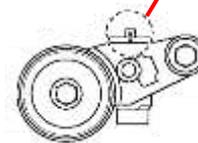


**The time spent on pressing the piston into the tensioner body must exceed 3 minutes.**

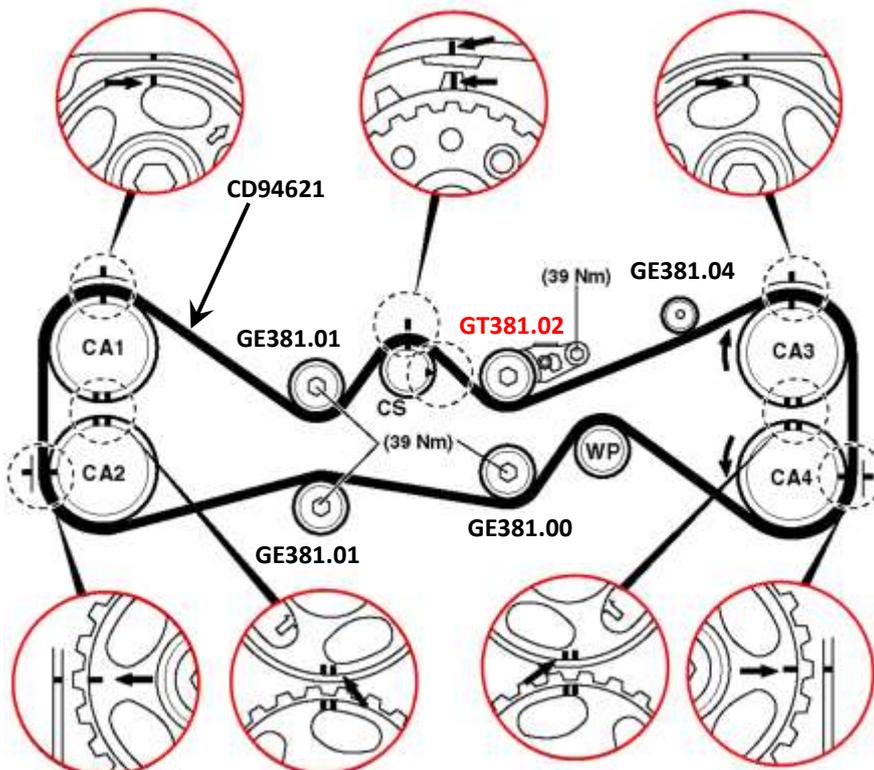


## 2) Install the automatic roller tensioner GT381.02

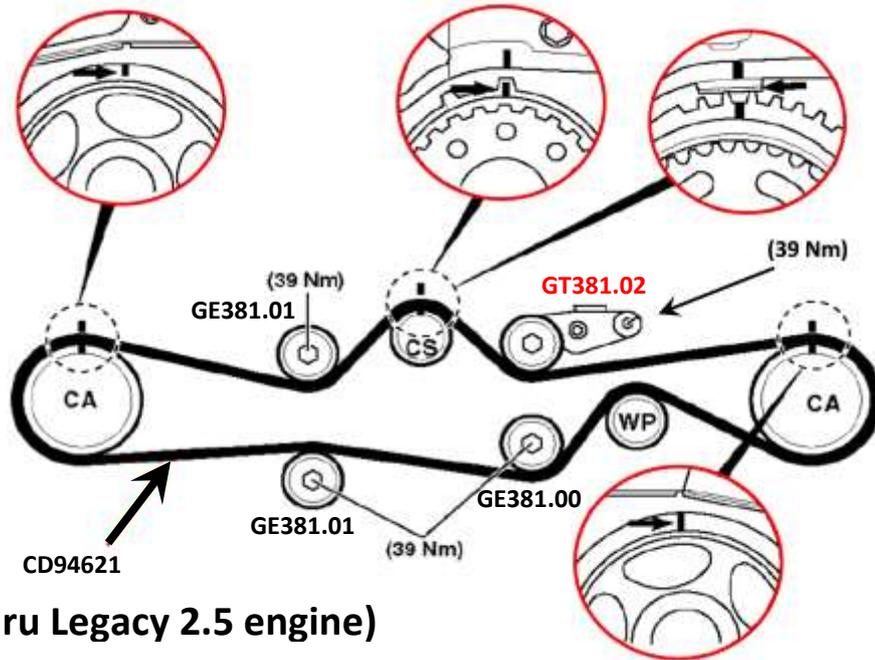
Tighten the bolt to **39 Nm** (Marks 3 and 4).



## 3) Make sure the timing marks are aligned (Marks 1, 3 and 4)



**Mark 3 (Subaru Forester 2.0 engine)**



Mark 4 (Subaru Legacy 2.5 engine)



If it is necessary to rotate the camshaft, proceed separately, slowly, taking care to avoid contact between the intake and exhaust valves, which could cause damage. Turn the left camshafts in the directions indicated by the arrows.



### Recommendations

Be sure to power on the hydraulic cylinder to avoid excessive play between the piston rod and the support on the engine block.

Make sure the O-ring of the roller tensioner screw is present and in the correct position before assembly.

Follow the manufacturers' assembly procedures as well as their indicated tightening torques. Consult vehicle applications in our online catalogue: <http://lc.cx/catalog-ra>



Use this QR Code to find our online catalogue

**ALWAYS FOLLOW THE VEHICLE MANUFACTURER'S RECOMMENDATIONS!**

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