

Tensioner pulley 531 0377 10 - Important information for correct assembly

Vehicle manufacturer:	Landrover, MG, Rover
Models:	
Landrover:	Freelander
MG:	ZS 180, ZT 160, ZT 180, ZT 190
Rover:	45, 75, 800
Engine:	2.0 V6, 2.5 V6 (KV6)
Item no.:	531 0377 10
OE-No.:	LHB 101630
Relevant Set/KIT:	530 0348 09 (SET) 530 0348 10 (KIT)

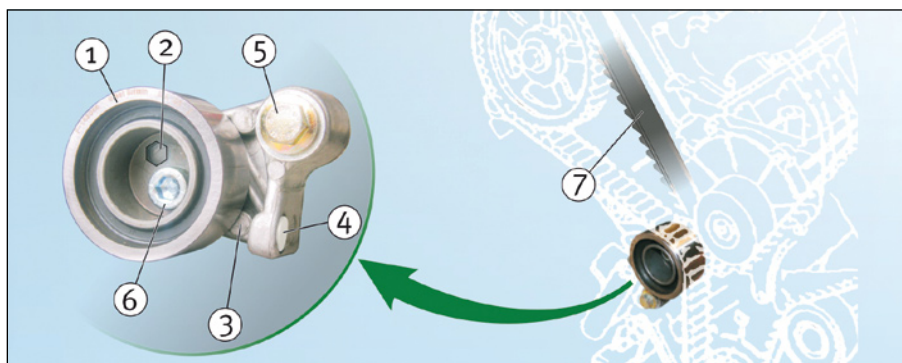


Figure 1: Tensioner pulley 531 0377 10 and installation position

Important:

Please note that the pulley (1) is only **pre-fitted** to the main carrier using a torque of 10 Nm. Therefore once the belt is fitted, the pulley must be **securely fixed in place** by tightening the fixing bolt (6). Using the tensioner pulley without following the correct installation procedure may result in damage to the engine.



Please consult the manufacturer's documentation for instructions relating to work that precedes or follows the work steps described here. These instructions refer only to changing the tensioner pulley and setting the toothed belt tension.

Key to figure 1:

- (1) Eccentric tensioner pulley
- (2) Hexagonal hole in eccentric
- (3) Main carrier

- (4) Contact surface of hydraulic damper
- (5) Bolt for attaching to the engine
- (6) Bolt for attaching the pulley
- (7) Measuring point for frequency measurement

Until now, the technical repair instructions for changing the toothed belt have generally been incomplete.

There are two methods of fitting the new tensioner pulley correctly:

- 1) With a frequency meter
- 2) Without a frequency meter



Note: In both methods the belt tension should be set with the timing belt in its free state i.e. with ...

- Camshaft pulley locking tools fitted
- Camshaft bolts slackened
- Crankshaft timing peg fitted
- Hydraulic damper compressed and 1.5 mm retaining pin fitted

We **recommend** the first method. To do this, you will require a frequency meter, such as the Clavis belt tension meter Type 6 -> www.clavis.co.uk

Method 1 (with a frequency meter):

- 1) Fit the tensioner pulley to the engine using bolt (5) (49 Nm) so that the contact surface (4) comes into contact with the damper push rod.
- 2) Fit the toothed belt in an anticlockwise motion, beginning at the crankshaft.
- 3) Turn the pulley towards the toothed belt (anticlockwise) using an 8-mm Allen key in the hexagonal hole (2) in the eccentric.
- 4) Place the frequency meter sensor on the measuring point (7).
- 5) Strike the toothed belt so that it vibrates. Read off the frequency on the frequency meter. The frequency must be between 75 and 83 Hz.
- 6) Using the eccentric, correct the tension of the toothed belt until the required frequency value is reached. Ensure the pulley does not go over centre as it might contact the Main Carrier leading to failure.
- 7) Tighten the tensioner pulley using the bolt (6) (40-50 Nm). Make sure that the tensioner pulley does not twist when tightening.
- 8) Finally, check the belt tension again (see point 5).
- 9) Remove the damper pin and rebuild as per the manufacturers instructions.

For further information:

Phone: +44 (0) 14 32 264 264*
 Fax: +44 (0) 14 32 375 760
 Info@LuK-AS.co.uk
 www.Schaeffler-Aftermarket.com
 * Calls from within the UK 08457 001100



Tensioner pulley 531 0377 10 - Important information for correct assembly

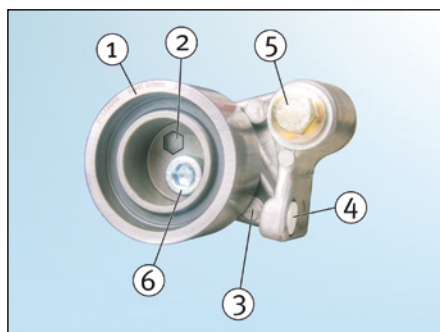


Figure 2: Tensioner pulley 531 0377 10

Key to figure 2:

- (1) Eccentric tensioner pulley
- (2) Hexagonal hole in eccentric
- (3) Main carrier
- (4) Contact surface of hydraulic damper
- (5) Bolt for attaching to the engine
- (6) Bolt for attaching the pulley

Method 2 (without frequency meter):

We recommend that two people carry out the following worksteps.

- 1) Fit the tensioner pulley to the engine using bolt (5) (49 Nm) so that the contact surface (4) comes into contact with the damper push rod.
- 2) Fit the toothed belt in an anticlockwise motion, beginning at the crankshaft.
- 3) Insert a long-handled 8-mm Allen key into the hexagonal hole (2) in the eccentric.

- 4) Using a second 8-mm Allen key, loosen the bolt (6) on the tensioner pulley (1) until the pulley can be twisted.
- 5) Now slowly turn the Allen key anticlockwise in the hexagonal hole (2). This motion tightens the toothed belt when the contact surface (4) of the tensioner pulley/main carrier moves against the hydraulic damper push rod.
- 6) Tighten the toothed belt until the locking pin in the damper becomes loose. Do not turn the tensioner pulley (1) over centre during tightening as this may result in damage.
- 7) Now tighten the bolt (6) on the tensioner pulley (1). Make sure that the pulley does not twist in the process.
- 8) Wait for two minutes to give the hydraulic damper time to settle. Then check again that the locking pin is still loose inside the damper housing. If the locking pin is not loose, repeat steps 4) to 8).
- 9) If the locking pin is still loose, tighten the bolt (6) on the tensioner pulley (1) using a torque of between 40 and 50 Nm to secure it in place. Make sure that the pulley does not twist in the process.
- 10) Check once again that the locking pin is loose. If not, repeat steps 4) to 9).
- 11) Remove the damper pin and rebuild as per the manufacturers instructions.

As well as supplying tensioner pulley 531 0377 10 as an individual part, Schaeffler Automotive Aftermarket also supplies a SET or KIT containing all the necessary components for replacing the toothed belt.



Figure 3: SET 530 0348 09



Figure 4: KIT 530 0348 10

Appropriate spare parts can be found in our on-line catalogue at www.Schaeffler-Aftermarket.com or in RepXpert at www.RepXpert.com.

Issued 05.2009

INA 0034

Technical subject to change

© 2009 Schaeffler Automotive Aftermarket oHG

For further information:

Phone: +44 (0) 14 32 264 264*

Fax: +44 (0) 14 32 375 760

Info@LuK-AS.co.uk

www.Schaeffler-Aftermarket.com

* Calls from within the UK 08457 001100

