

## **IDENTIFICATION OF TIMING KIT KD470.32**





# **COMMON PROBLEMS**

### **PROBLEMS CAUSED BY INCORRECT INSTALLATION**

## **Probable cause**

#### Incorrect arrangement of the tensioner

When fitting a hydraulic tensioner certain precautions must be taken during the installation process.

• Do not remove the locking pin from the hydraulic tensioner before it has been fixed securely in place.



To check that the hydraulic tensioner is operating correctly, refer to the TechInfo data sheet "Hydraulic tensioners" .

### **PROBLEMS OF INCORRECT BELT TENSION**

### **Probable cause**

#### Incorrect installation of the roller

The hydraulic tensioner requires a particular installation procedure. Failure to follow this procedure can result in incorrect timing belt tension. When the belt is incorrectly tensioned a heavy or off set mark is normally left on the cylinder shaft.



Mark on the cylinder shaft

## Consequences

**Engine damage** Failure to fit the hydraulic tensioner correctly can result in server engine damage.



**Reminder:** 

- Never compress the hydraulic cylinder while it is horizontal.
- Never remove the tensioner locking pin before completing the installation of the roller and the timing holt
- installation of the roller and the timing belt.

DISTRIBUTION



- This timing belt kit must be installed in accordance with the manufacturer's installation procedures, failure to do so may result in partial or total engine failure
- During the installation only the special tools described below should be used.

# REPLACEMENT

#### **Special tools**

Engine cross-bar support tool OE (49 C017 5A0)

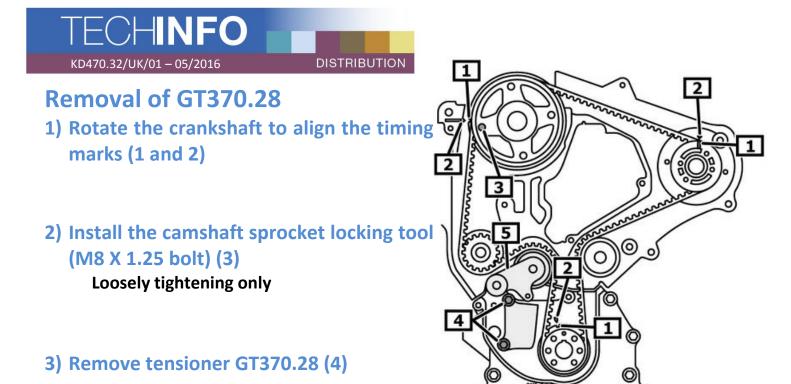
SNR recommends using HAZET tool 220-1

#### Precautions:

- Disconnect the earth lead from the battery
- DO NOT rotate the crankshaft or the camshafts while the timing belt is removed
- Remove the spark plugs to make engine rotation easier
- Rotate the engine in the normal direction of rotation (unless indicated otherwise)
- DO NOT rotate the engine via the camshafts or other drive pinions
- Follow all tightening torque specifications

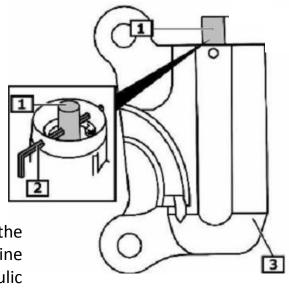






# **Re-installation of GT370.28**

If the locking pin is accidently removed the hydraulic tensioner can be reset using the following procedure.



Hold the cylinder in the vertical position

Use a press to compress the piston (1) slowly into the body of the hydraulic tensioner (3) until the holes line up, replace the pin. Warning: resetting of the hydraulic cylinder cannot be done using a bench vice.



Do not exceed a force of 1000 Nm

- 1) Fix the piston in position by inserting a rod into the body of the tensioner roller (2)
- 2) Ensure that the timing marks are aligned and then re-install the toothed belt



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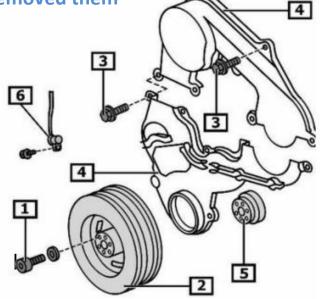
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4) Re-install the tensioner and tighten the two bolts first by hand and then to the specified torque

Beginning with the upper bolt

ECHINFO

- 5) Withdraw the tensioner piston locking pin to release the tensioner
- 6) Ensure that the timing marks are correctly aligned after two full rotations of the crankshaft
- 7) Re-install the remaining components in the reverse order to that in which you removed them



1 Bolt – crankshaft pulley

- 2 Crankshaft pulley
- 3 Bolt toothed belt guard
- 4 Toothed belt guard
- **5 Drive pulley**
- 6 Engine speed sensor

#### Recommendations

Follow the hydraulic cylinder tensioning procedure in order to prevent excessive play between the cylinder shaft and the support on the engine block.

Follow the vehicle manufacturer's installation procedures and apply the specified tightening torques.



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FOLLOW THE RECOMMENDATIONS OF THE VEHICLE MANUFACTURER!

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