SKF Pole Position

RENAULT

VKMC 06002

Issue 12 · 2012

Prevent failure of an “interference” engine!

This bulletin highlights costly mistakes that could occur when installing new timing system components, on the featured Renault 1.2 16V engine. The SKF VKMC 06002 is a timing belt kit that also contains a water pump - since the water pump is integrated into the timing system, it is important to change the complete system to prevent premature engine failure.

On this **1.2 16V engine**, care must be taken when renewing the timing system components, as the engine in question is known as an “interference” type engine. This means that in the event of timing belt failure, valve to piston damage **will** occur. When it comes to the scheduled servicing of the timing system, vehicle manufacturers’ guidelines should always be followed.

On this engine, Renault recommend replacement of the timing system every 120,000 kms / 72,000 miles **or** every 5 years, regardless of whether the mileage has been achieved or not!

Vehicle applications – VKMC 06002

CAR MAKER	MODEL	ENGINE	ENGINE CODE
DACIA	SANDERO	1.2 16V	D4F 732
NISSAN	KUBISTAR	1.2 16V	D4F 712
RENAULT	CLIO II, CLIO III, KANGOO I, MODUS, SANDERO, THALIA, TWINGO I, TWINGO II	1.0	D4D 700, D4D 706, D4D 720, D4D 752, D4D 760
		1.2 16V	D4F 702, D4F 706, D4F 708, D4F 712, D4F 722, D4F 728, D4F 730, D4F 740, D4F 742, D4F 764 D4F 772, D4F 784
		1.2 Turbo	D4F 780, D4F 784

When renewing cooling system components, **always** ensure that the engine and radiators are flushed through completely with clean water. Any remaining residue, i.e. metal particles, calcium deposits, etc. can destroy the ceramic seal in the new water pump!

Fitting guidelines for the VKMC 06002 kit

Once all of the preparations have been made to the vehicle, i.e. engine supported safely, cooling system drained, RH wheel and engine mounts removed.

1. Remove the auxiliary drive belt system.

> **Note:** Renault states that **all** auxiliary drive belts, tensioner pulleys and idler pulleys **must** be replaced, when replacing the vehicles timing system.

2. Remove the crankshaft pulley.

3. Set the timing, ensuring that the timing marks are aligned. Then lock the flywheel using Renault tool no. Mot. 1054.

4. Remove the timing covers and slacken the tensioner. Then remove the timing belt and water pump. Ensure that the water pump area is clean, then fit the new VKPC 86810 water pump and torque to the manufacturers' recommendations.

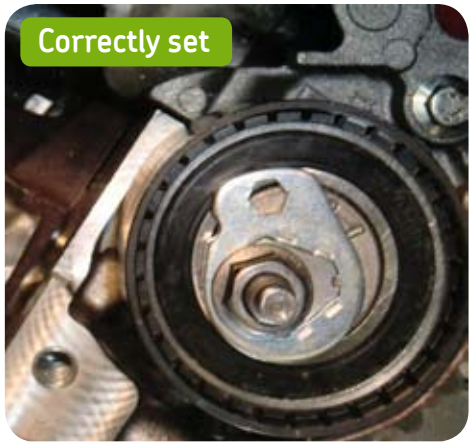
5. Ensure the locating pegs on the VKM 16002 tensioner are correctly positioned in the engine block.

6. Fit the timing belt, ensuring that the marks on the belt align with the marks on the sprockets, then remove the locking pin from the tensioner. Rotate the tensioner anti-clockwise until pointer is at the position shown and **torque to 24 Nm**.

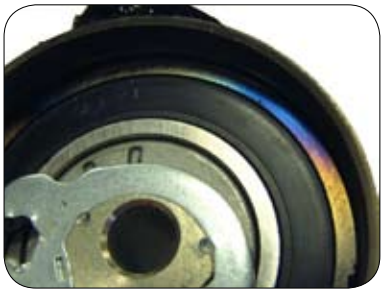
7. Rotate the crankshaft 6 times in a clockwise direction. Reset the timing and locking pin.

8. Then, whilst holding the 6mm allen adjuster key on the tensioner, slacken the pulley nut.

9. Turn the tensioner, until the pointer is at the position shown below and **torque to 24Nm**.



Caution: If the tensioner is touching the cylinder head the procedure must be restarted.



The pictures above show different consequences of the tensioner touching the cylinder head.

10. Reinstall the components in the reverse order of removal. Fit new crankshaft pulley bolt and torque to **40 Nm + 70 degrees**.

11. Fit new auxiliary drive components.

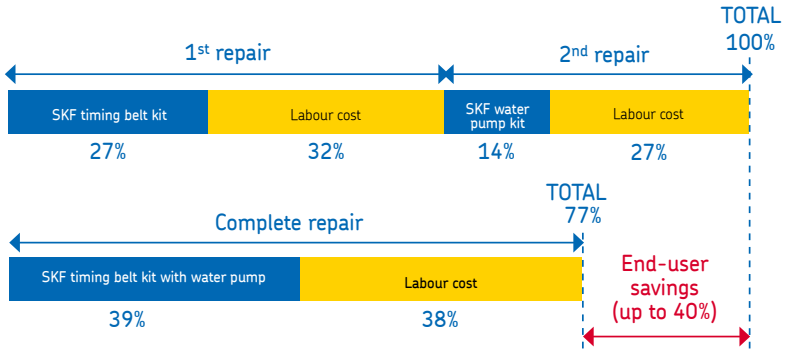
Note: do not start the engine without the auxiliary drive belt fitted – damage could occur to the crankshaft pulley!

12. Fill the cooling system with the manufacturers' approved pre-mixed coolant and bleed the system following the vehicle manufacturers guidelines. Make a final check for any coolant leaks.

Kill two birds with one stone!

Their replacement frequency being almost the same, change both the timing belt and the water pump using SKF timing belt kit with water pump.

- Prevent engine breakdown and customer complaints
- Save money for your customers
- Save time on sourcing and installing the right parts for the repair
- SKF water pumps meet or exceed OE specifications, ensuring the optimum fuel consumption and efficiency
- SKF VKMC 06002 includes fitting instructions specific to the engine application



Install confidence with SKF timing belt kit with water pump!

SKF VKMC 06002 is a timing belt kit including SKF AquaMax water pump.

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