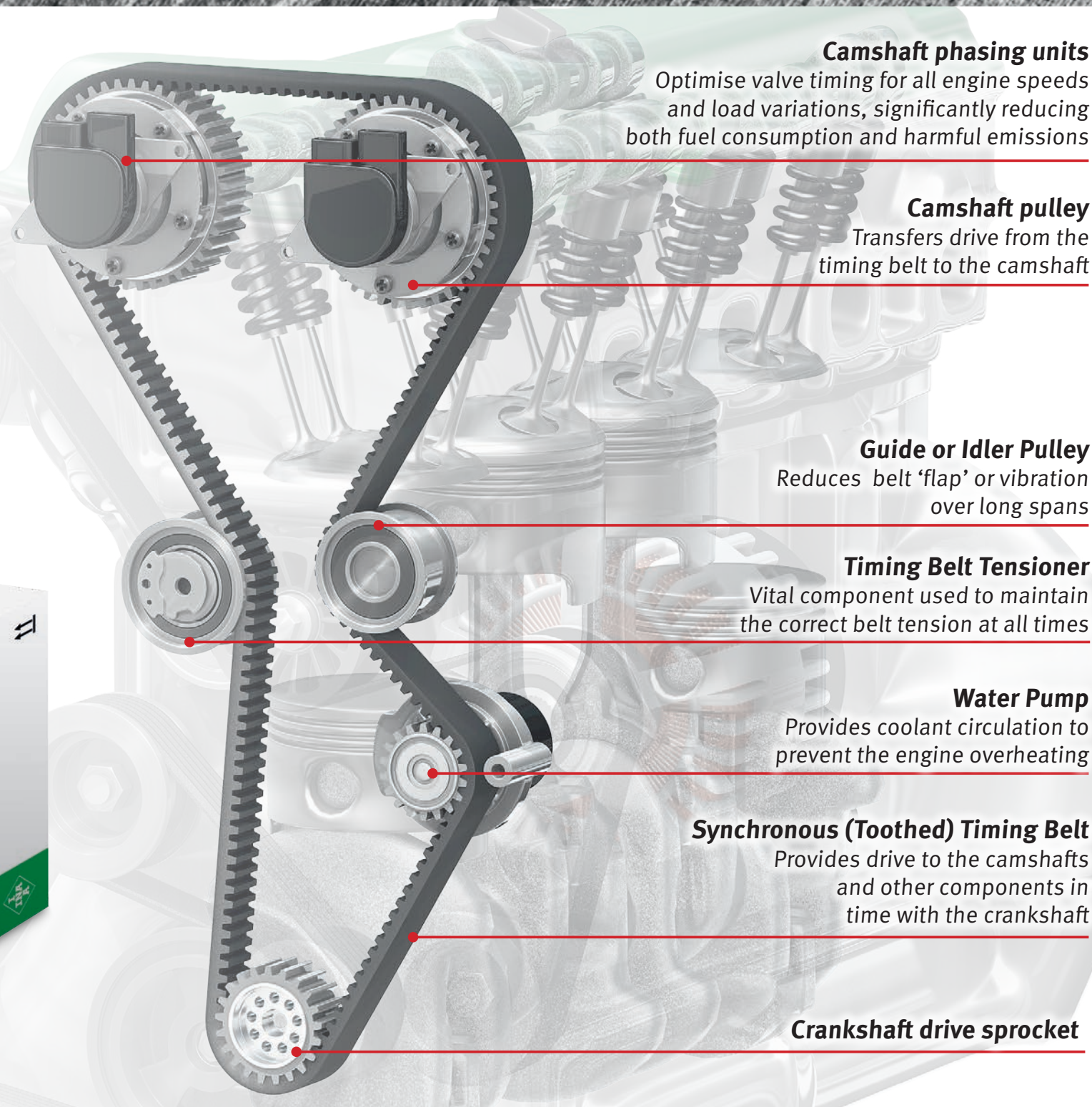


TIMING BELT DRIVE SYSTEM

- An INA KIT contains every 100% OE component needed to carry out a professional timing system repair.
- All components should be changed during servicing to prevent the possibility of major engine damage.
- Any unexplained noise or vibration is a cause for concern and should be investigated immediately.



FOLLOW THE 4T RULE!

4T
TEMP
TOOLS
TORQUE
TENSION



TEMPERATURE
Don't start work until the engine has cooled down completely



TOOLS
The correct tools must be used in accordance with VM instructions



TORQUE
Use a torque wrench to tighten all bolts to the correct VM specifications

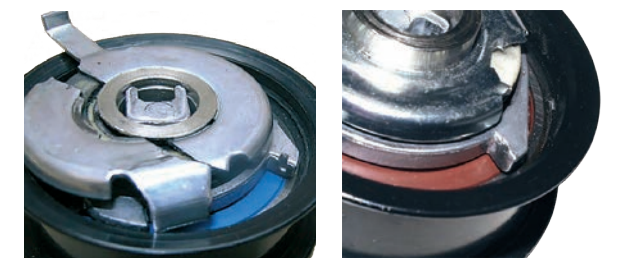


TENSION
Belt tension must be set correctly and accurately to VM specifications

TENSIONER DIAGNOSIS

WORN END STOP / BROKEN STOP PIN

CAUSE:
Fitting error:
- Incorrectly tensioned



CONTACT DAMAGE ON PULLEY RIMS

CAUSE:
Fitting error - Misalignment
Defective components (e.g. water pump bearing)



BELT DIAGNOSIS

IMPORTANT: A BROKEN TIMING BELT CAN CAUSE ENGINE FAILURE LEADING TO EXPENSIVE REPAIRS!

Always check the timing belt during routine maintenance and replace at the vehicle manufacturer's recommended change point.



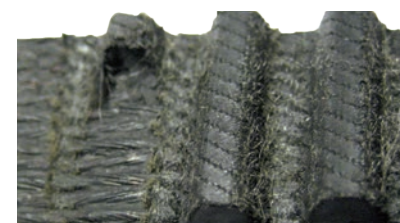
STRAIGHT BREAK
CAUSE:

Fitting error:
- Belt crimped (folded)



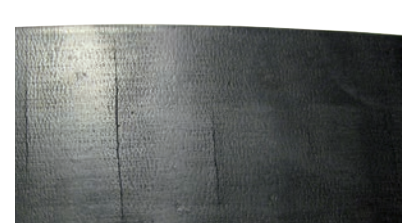
JAGGED BREAK
CAUSE:

Fitting error:
- Incorrect (excessive) tension
Seized components
Foreign body in drive system



SHEARED TEETH
CAUSE:

Fitting error:
- Incorrect tension
- Misalignment
Change point exceeded



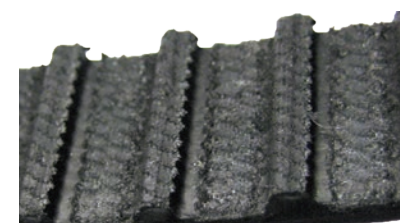
CRACKED BACK
CAUSE:

Heat exposure
Change point exceeded



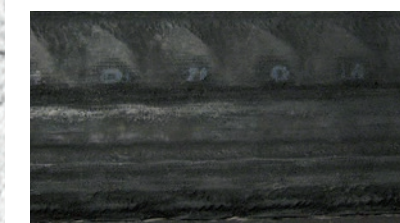
SIDE WEAR / POLISHING
CAUSE:

Fitting error:
- Misalignment



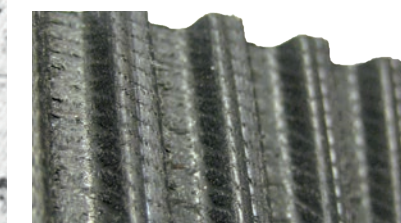
WORN TOOTH FLANKS
CAUSE:

Fitting error:
- Incorrect (excessive) tension
- Misalignment
Change point exceeded



MARKED BELT BACK
CAUSE:

Fitting error:
- Incorrect tension / alignment
Foreign body in drive system
Seized components



GAP (LAND) WEAR
CAUSE:

Fitting error:
- incorrect (excessive) tension



CONTAMINATED BELT
CAUSE:

Damaged or incorrectly installed timing belt cover