MAJOR CAUSES OF TIMING AND ACCESSORY BELT FAILURES

WORN OR DAMAGED BELTS

**EVIDENCE**
- Material is worn and torn away from the belt and normally accumulates around the engine and timing covers

**CAUSES**
- Slipping belt particles to the pulleys. This causes abnormal noise from the belt when the engine is operating.
- Misalignment of pulleys.
- Worn or damaged pulleys.

**NTN-SNR RECOMMEND**
- Replace the belt.
- Check the length and the number of teeth are correct.
- The belt must be kept dry and free from grease or oil contamination.
- Closely follow the manufacturer's fitting instructions and guidelines.

**AN UNEVEN BREAK ACROSS THE BELT**

**EVIDENCE**
- A transverse tear across the belt.
- Damage to the back of the belt, normally small holes and fraying.

**CAUSES**
- Excessive tension.
- An defective external component.
- Solid or liquid contamination.

**NTN-SNR RECOMMEND**
- Replace the belt.
- Check the length and the number of teeth are correct.
- The belt being lifted before threat or when in use.
- Closely follow the manufacturer's fitting instructions and guidelines.

CRACKS ON THE BELT

**EVIDENCE**
- Small visible cracks all over the belt.

**CAUSES**
- Over heating of the belt caused by friction.
- An over tightened belt causing it to stretch and crack.

**NTN-SNR RECOMMEND**
- Check the vehicle's cooling system is operating correctly.
- Check for wear or damages to the systems pulleys.
- Replace the belt and check the tensioner is tensioning correctly.
- Closely follow the manufacturer's fitting instructions and guidelines.

A CLEAN BREAK IN THE BELT

**EVIDENCE**
- The belt is ripped apart.

**CAUSES**
- Foreign object stuck between the belt and the pulley(s).
- Excessive tension.
- Damage to the internal material of the belt (fiberglass cord).

**NTN-SNR RECOMMEND**
- Replace the belt, check the length and the number of teeth are correct.
- Check the engine for oil or coolant leaks and repair.
- Closely follow the manufactures fitting instructions and guidelines.

MELTED BELT OR AN EXTERNAL COMPONENT PROBLEM

**EVIDENCE**
- The back of the belt may show signs of melting or excessive wear.

**CAUSES**
- The belt slipping over the tensioner, due to low tension in the belt when in operation.
- Defective over running alternator pulley (OAP).

**NTN-SNR RECOMMEND**
- Replace the belt and check all pulleys and tensioners are operating correctly.
- Check the tensioner is adjusted to the correct tension.
- Closely follow the manufacturer's fitting instructions and guidelines.

WEAR ON THE EDGES OF THE BELT

**EVIDENCE**
- Premature wear on the edge of the belt may expose the cords of the belt, the belt may be noisy when in operation.

**CAUSES (Accessory)**
- Fitting the belt using the incorrect tools such as screwdrivers.
- The belt moving on the pulleys during the fitting process.

**NTN-SNR RECOMMEND**
- Replacing the belt and re-aligning all the pulleys.
- Check all the components of the auxiliary and timing systems.
- Closely follow the manufacturer's fitting instructions and guidelines.