

Field Remedy: 1463

Subject: **Toothed belt diagnosis - Possible causes and remedies**

Models: **Engines:** **Option:**

All

All

Complaint:

Cause:

Production:

Remedy:

Excessive drive noise from toothed belt drive (picture I)

Problem and cause:

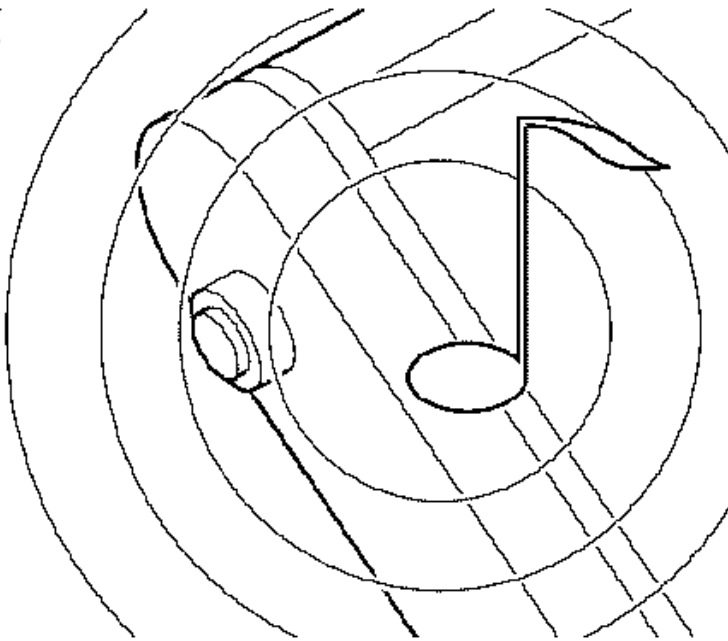
Remedy:

Side tension too high
- belt whines / squeals

Adjust to correct tension

Side tension too low
-belt strikes against cover

Adjust to correct tension

I

Excessive adge wear (picture II)

Problem and cause:

Remedy:

Belt not running parallel to axis
and impacting against flanged pulley

Align correctly

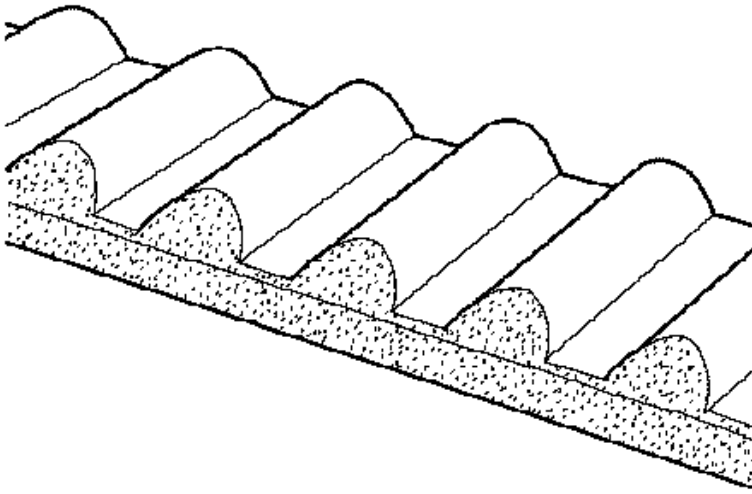
Deflective flanged pulley

Replace sprocket

Gearwheel misalign
- belt cannot run true

Align correctly

II



Excessive fabric wear at base (picture III)

Problem and cause:

Remedy:

Side tension too high

Adjust to correct tension

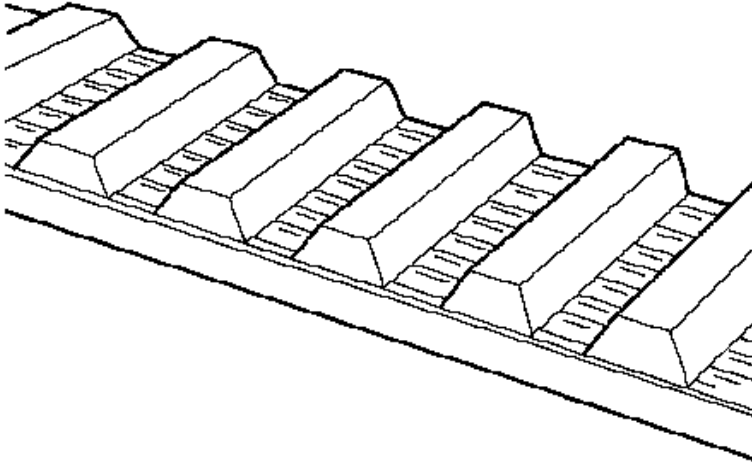
Belt operating in excessive heat

Identify problem and rectify

Worn sprocket

Replace sprocket

III



Tooth flank wear / roof fractures and tooth shear (picture IV)

Problem and cause:

Remedy:

Side tension too high / low, leading to incorrect pitch ratios

Adjust to correct tension

Belt does not comply with permissible length tolerance

Replace sprocket

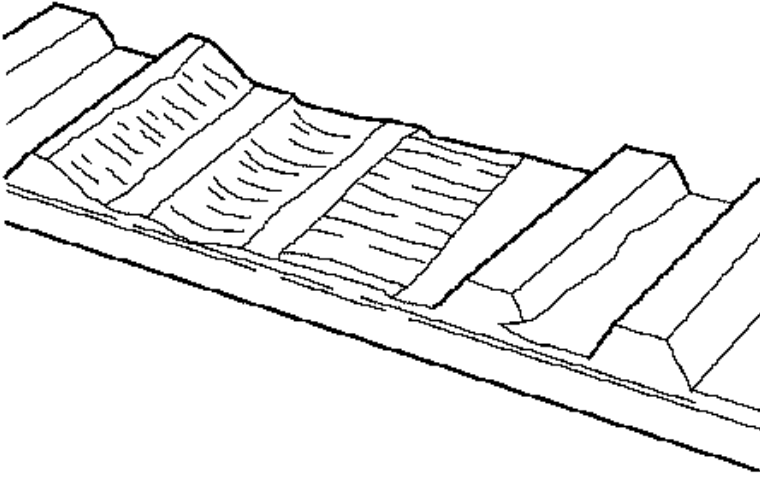
Action of external media(e.g. oil)

Identify problem and rectify

Sprocket / pulley jammed

Identify problem and rectify

IV



Separation of teeth and fabric from belt body (tension member) (picture V)

Problem and cause:

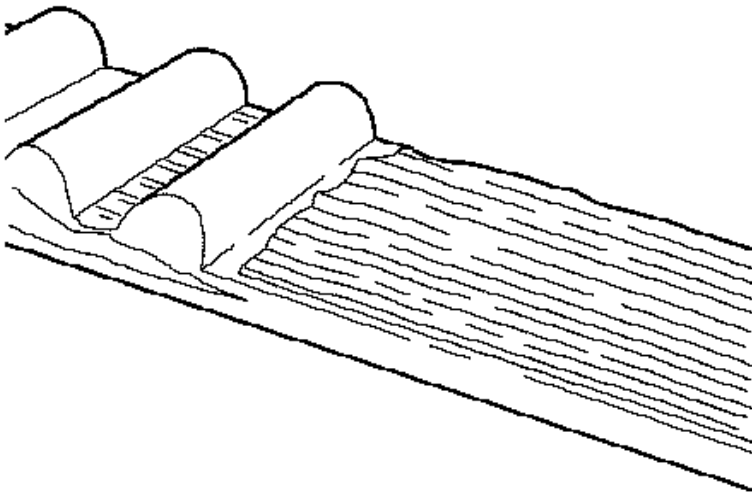
Remedy:

Fabric damaged during installation

Fit new belts carefully

Action of external media

Check cover if seated properly

V

Damage on pulley side of belt (picture VI)

Problem and cause:

Remedy:

Foreign object caught in belt drive

Remove foreign object, check
cover if seated properly

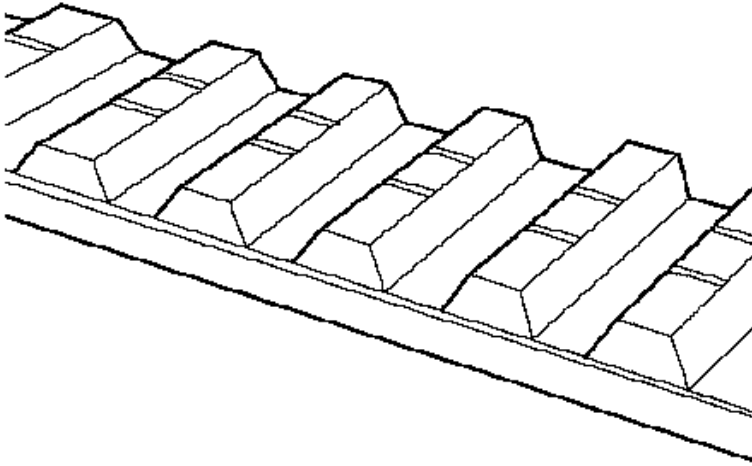
Damage to gearwheel teeth caused by
foreign object or installation tool

Replace sprocket

Belt damaged prior to / during
installation

Ensure proper installation

VI



Cracks in backing (picture VII)

Problem and cause:

Remedy:

Exposure to excessive heat

Identify problem and rectify

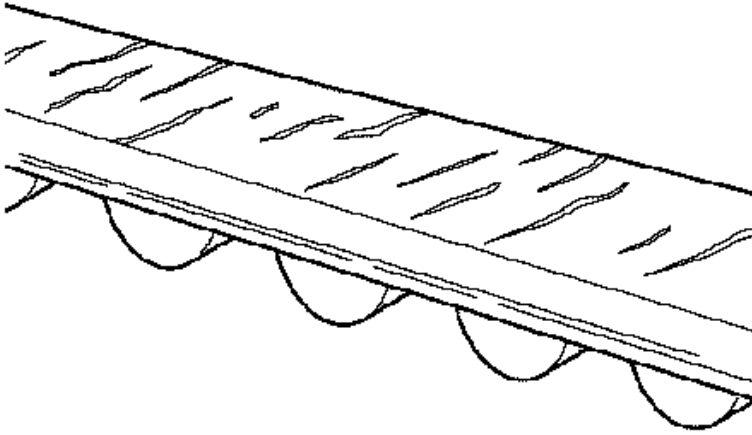
Exposure to excessive low temperature

Identify problem and rectify

Action of external media

Check cover if seated properly

VII



Tearing of the belt (picture VIII)

Problem and cause:

Remedy:

Foreign object caught in drive

Check cover if seated properly

Action of external media

Check cover if seated properly

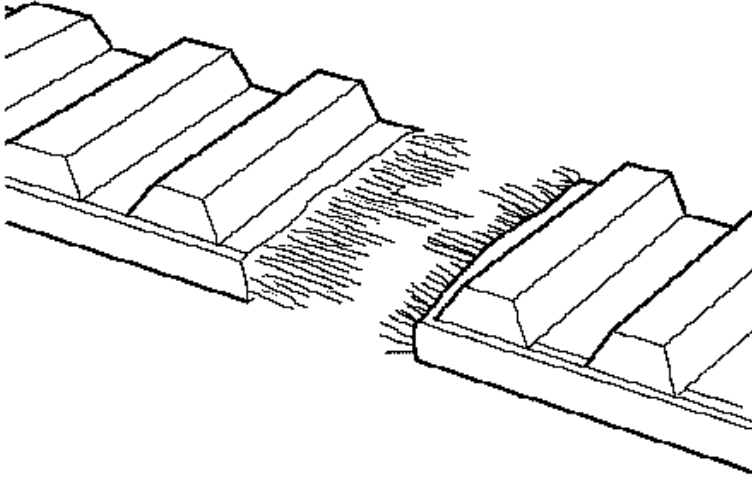
Initial tension too high

Adjust to correct tension

Belt crimped prior to / during
installation

Observe handling instruction

VIII



Fault system component (picture IX)

Problem and cause:

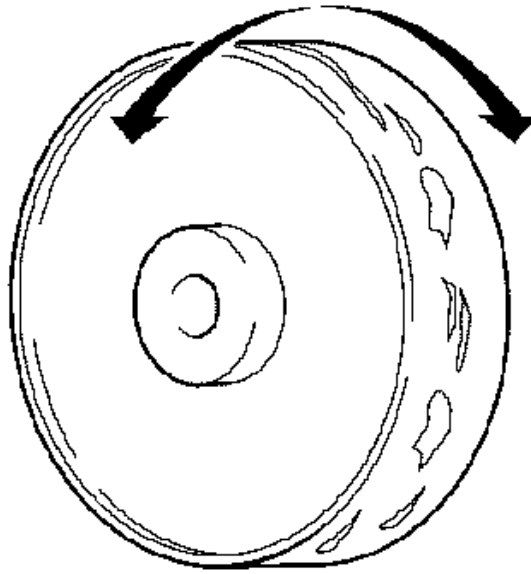
Bearing play

Damaged bearing surface

Remedy:

Substitute idler pulley, tension coil and/or guide roller

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IX

Fracture on fixing spot tension coil-oil pump (1,4 - 2.2 litre engines)
(picture X)

Problem and cause:

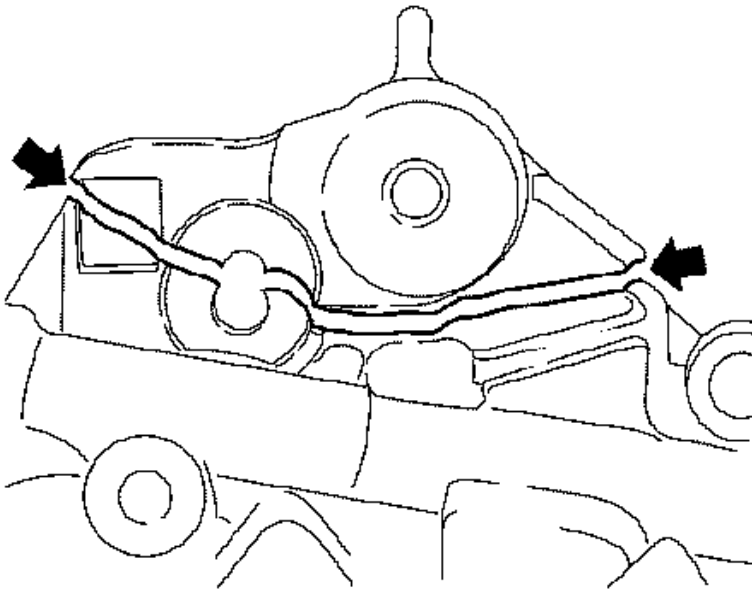
Remedy:

Wrong torque of tension coil on
fixing spot of oil pump

Replace oil pump

Important:

- check the oil pump on each toothed belt check or each replace interval and each toothed belt damage for cracks (arrows).

X

FunctionalGroup: J - Engine

Complaint Group: 01 - Broken or Cracked,05 - Excessive wear,14 - Noises or Vibrations,24 - Wrong or not mounted

Trouble Code: Non