



Drive

## Ancillary components and belt drive

### - New features

A new crankshaft vibration damper is used.

### - Changes

The belt drive for the ancillary components has been extended from 5 to 6 ribs to accommodate the hydraulic pump for the DynamicDrive system.

Because it has not been possible to increase the overall length of the engine by extending the main belt drive, the A/C compressor belt drive has been reduced from 5 to 4 ribs.

The alternator support pulley is no longer necessary due to the wider ribbed V-belt drive.

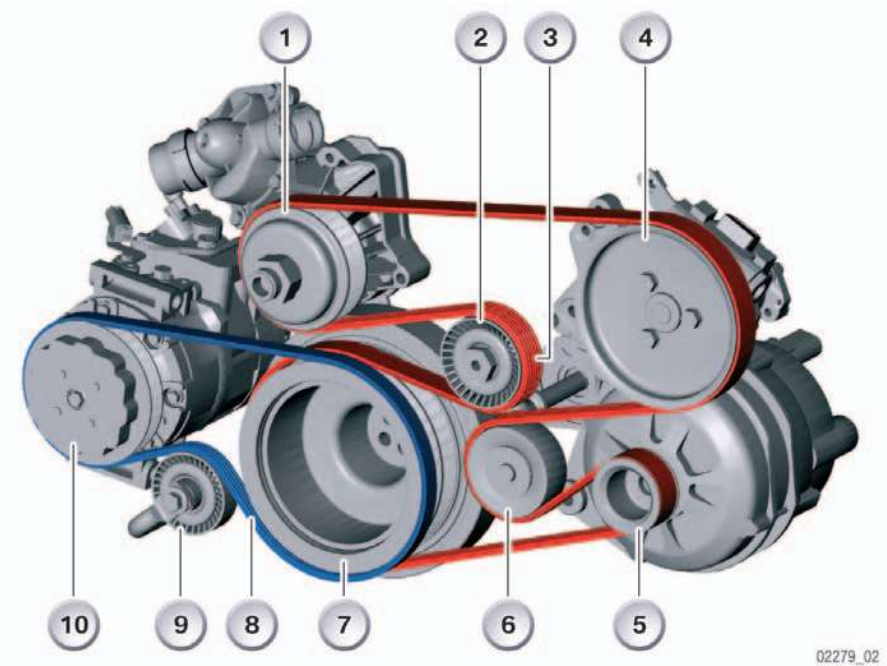
The basic alternator is the air-cooled 170 A alternator.



Drive

### System overview

#### - Mechanical system



KT-10963

02279\_02

Fig. 8: Belt drive

| Index | Explanation                   | Index | Explanation                  |
|-------|-------------------------------|-------|------------------------------|
| 1     | Coolant pump                  | 6     | Deflection pulley            |
| 2     | Tensioning pulley, main drive | 7     | Vibration damper             |
| 3     | Ribbed V-belt, main drive     | 8     | Ribbed V-belt, A/C drive     |
| 4     | Power steering pump           | 9     | Tensioning pulley, A/C drive |
| 5     | Alternator                    | 10    | A/C compressor               |



### Drive

#### - Vibration damper

The vibration damper of the M57TU is new.

#### Design

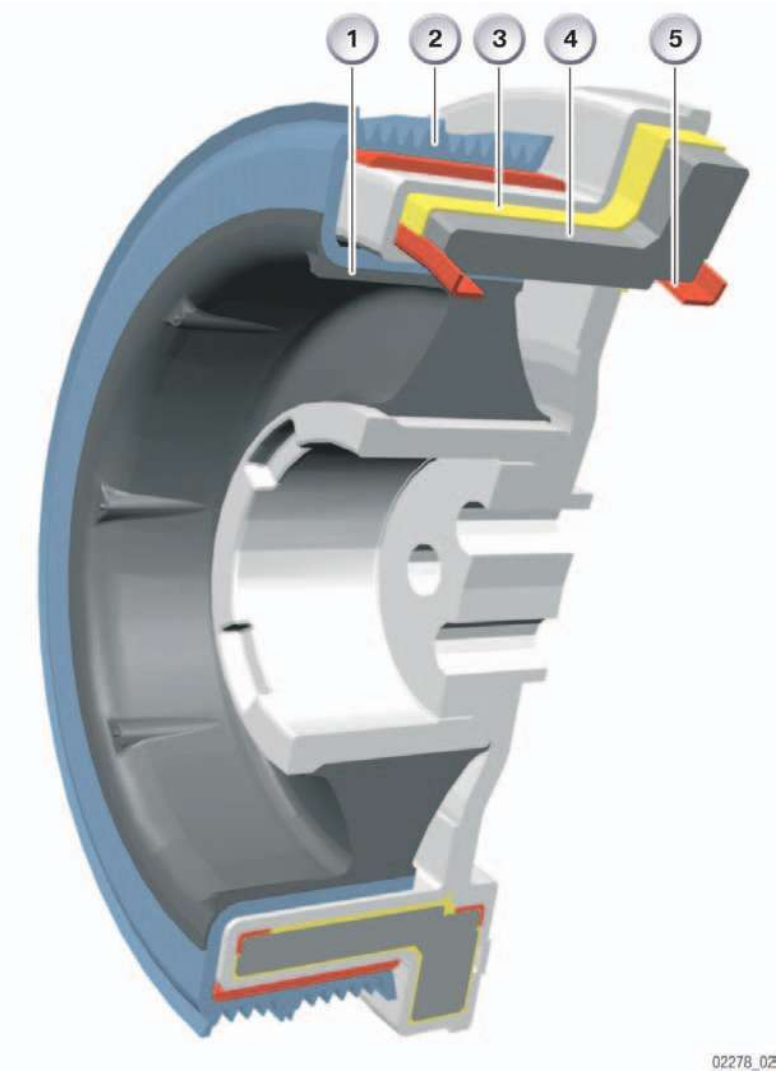
The housing of the vibration damper consists of two sheet steel sections. The centrifugal mass floats in viscous oil in the inner chamber of the housing and is additionally guided by friction bearings.

The pulley for the ancillary component is mounted on the vibration damper and isolated from the crankshaft by means of a rubber track.

This arrangement dampens the crankshaft vibrations ensuring they are not transmitted to the belt drive.



Drive



KT-10953

02278\_02

Fig. 9: Viscous damper

| Index | Explanation                              |
|-------|------------------------------------------|
| 1     | Rubber mount (decoupling of belt pulley) |
| 2     | Belt pulley                              |
| 3     | Viscous oil                              |
| 4     | Centrifugal mass                         |
| 5     | Slide rails                              |