







DPF/GB-07/2022

CRANKSHAFT DAMPER PULLEYS

Mounting bolts

Some new damper pulleys require new bolts. Why replace the bolts?

When a damper pulley is fitted and torqued correctly the retaining bolts are put under high stress loads, this stress causes the bolts to stretch and deform.

If the old stretched or deformed bolts are reused, they may fail to tighten up correctly or even snap in some instances.

If the original bolts are fitted with thrust washer's, they must be transferred to the new bolts or replaced with new washers.



Identifying and obtaining the correct bolt isn't always easy

It's not always easy to obtain the correct replacement bolts, NTN SNR supply pulley damper kits with all the correct bolts included, saving you time and future problems.



Not all crankshaft pulley dampers require new retaining bolts, only pulleys that are retained with stretch bolts require new bolts. (stretch bolts are used where angles are applied to the tightening torque settings ie $80 \text{ Nm} + 60^{\circ} + 30^{\circ} + 30^{\circ}$)

Why replace the bolts when changing the damper pulley?

- The bolts are at their elastic limits once used.
- The bolts elongate and deform even when the correct torques are applied
- Bolts that require a tightening angle should always be replaced



Once a stretch bolt is used the mechanical characteristics of the bolt are changed, the bolt is no longer within the manufacturers specified tolerance's.

What are the risks associated with using a stretched or deformed bolt?

- A damper pulley failure due to incorrect torque being applied
- Shearing of a damaged bolt, this in some cases can course serious engine failure

Recommandations

Air tools should never be used to loosen or tighten the retaining bolts Always adhere to the manufacturers torque settings





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