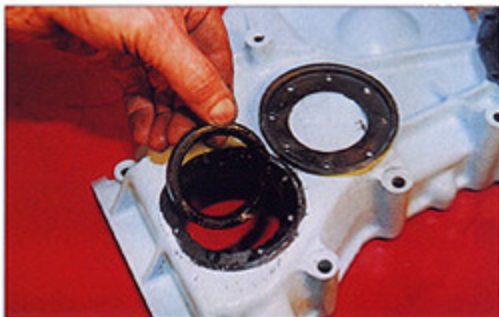




# Crankshaft front oil seal replacement

Renewal of the crank front oil seal doesn't necessarily involve removing the timing cover. Chris Perfect takes the fast route



This crankshaft front oil seal is replaced after removing the timing cover from the engine, but it's quicker to work with the cover in place

### How hard how easy?

**How difficult?**  
Straightforward job, but needing a good selection of tools



2 spanner rating

**Special tools needed?** Short-stock drill or angle drive, spanner for crank pulley nut

**Time?** Two to three hours

**Safety precautions:** When working underneath your vehicle, ensure a gear is engaged, the transmission brake is on and the wheels chocked. If you need to jack the vehicle for extra height, rest it on fixed and stable supports, such as axle stands

The front crankshaft oil seal is seated in the engine's front timing cover and covered by a circular mud shield rivetted to the front of the cover. It's always worth replacing an old seal whenever the cover is removed for inspection of the timing gear. But if the seal leaks during service, it can be replaced after removing the crankshaft pulley without any further dismantling. The seal's mud shield has to be removed by drilling out the rivets and, although access isn't easy, this is possible with the use of a small (short stock) drill, or by using a 90-degree drive attachment that will fit in the space between the axle and the engine. The job is carried out from beneath the vehicle. If the seal has already been replaced during the life of the engine, the rivets may already have been replaced by self-tapping screws, making the job even simpler.



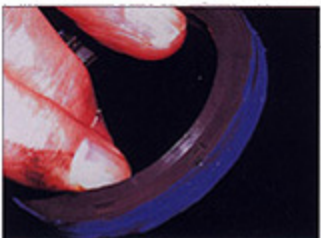
**1** Start the job by slackening off the alternator bracket in order to remove the drive belt. The next step in the removal process is to take out the crankshaft pulley nut and withdraw the pulley



**2** The seal is behind the mud shield, which is rivetted to the timing cover. A 3.5 or 4mm drill can be used to drill out the rivets. The rag is stuffed around the crankshaft to catch any swarf debris



**3** Alternatively, the rivet heads can be cut off with a cold chisel, and drilled out later. Here, the mud shield has been removed and the seal is being prised out. Make a note of which way round it fits



**4** Wipe clean the inside face of the oil seal aperture and clean the outside of the timing cover area. Ensure no dirt gets into the engine. This new-type oil seal is smeared with sealant before being fitted



**5** The new crankshaft front oil seal is pushed in just level with the face of the timing cover. It is quite tight, but can be tapped in gently using a block of wood to avoid any damage to the unit



**6** The mud shield is finally re-fitted and secured by eight self-tapping screws that are normally provided with the new seal. This should mean an end to unsightly oil patches on your driveway



**7** Clean the end of the crankshaft and smear grease on the outer diameter of the pulley hub that the new seal runs on. Slide the pulley on, engaging the keyway, and then secure with the starter dog nut