

# Opel belt replacement guide

The 1.8i 16V C 18 XE engine – with varying engine displacement – is used in a number of Opel models. Serious mistakes can be made when the tension pulley is adjusted. To ensure that changing these belts goes smoothly, ContiTech Power Transmission Group provides a step by step installation guide.

When timing belts are changed, the tension pulley, the guide pulley and the water pump should be replaced too. Opel recommends replacement after 60,000 km or every four years. When carrying out a replacement, mechanics need a tool to lock the camshaft, for instance the Multilock from the Conti Tool Box. On an Astra F, it takes about one hour to replace the parts.

### Preparatory work

Identify the vehicle using the engine code, which can be found on the outer edge of the transmission mounting flange on the engine block (fig. 1). Disconnect the battery. Remove the air filter, the air intake hose and, on engines with the code C 18 XE/XEL, the air mass sensor. Support the engine and remove the right engine mount, the auxiliaries and the V-ribbed belt. Dismount the power steering pump and the air-conditioning compressor, and remove the timing belt cover.

### Removing the timing belt

Turn the crankshaft to the right until the control mark on the crankshaft pulley aligns with the indicator on the engine block (fig. 2). On camshaft pulleys with a single control mark, make sure that the mark on the camshaft pulley is aligned with the mark of the valve cover. On camshaft pulleys with two control marks, check that the "INTAKE" and "EXHAUST" control marks are aligned with the marks of the valve cover (fig. 3). Lock the camshaft with the locking tool (fig. 4). **Note:** If the timing belt is removed without locking the camshafts, the camshafts may turn and the timing belt can no longer be mounted properly. If this happens, the camshafts can be put back into position using improper methods.

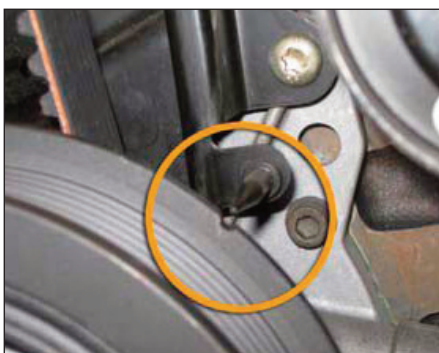


Fig. 1

Remove the crankshaft screw and loosen the tension pulley screw. Turn the tension pulley to the right until the pointer is at the left stop. The tab attached with a hexagon socket screw must move clockwise downwards. Use a hexagon socket here. You can now remove the timing belt. Drain cooling water and remove the tension and idler pulleys and the water pump.

### Installation of the timing belt

Replace idler pulleys and water pump. **Note:** When installing the water pump, make sure that it is positioned correctly. The nose of the water pump must be placed in the recess of the rear timing belt housing (fig. 5). Install the new tension pulley. Make certain that the counter support on the back of the tension pulley (base plate of the pulley) is positioned between the contact surfaces on the engine block and not next to them (fig. 6). Install the new timing belt against the rotational direction starting at the crankshaft gear. Turn the tension pulley with the adjusting cam to the left until the pointer is at the right stop. The hexagon socket screw moves counterclockwise upwards. Use a hexagon socket. Then tighten the new tension pulley slightly. **Note:** This is an especially important step. If this is not done, the belt drive will start making noise in a short time due to insufficient tension. Rotate the engine by hand, in the running direction, at least twice after removing the locking tool. Loosen the screw on the tension pulley, and turn the tension pulley to the right until the pointer is aligned with the notch in the bracket (fig. 7). Tighten the screw on the tension pulley with a force of 20 Nm.

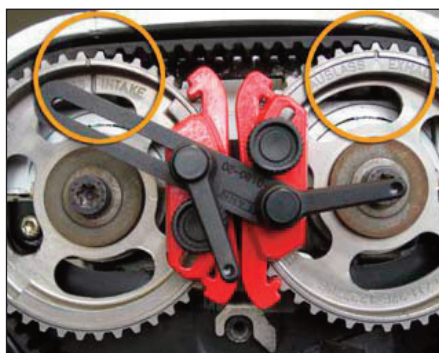


Fig. 2

Turn the engine by hand two more times, check the setting and adjust if necessary. Install the components in reverse order of removal. Fill up the cooling water and vent the cooling system. Record the replacement of the original ContiTech timing belt on the supplied sticker and affix it in the engine compartment (fig. 8). Test run the engine and take a test drive.

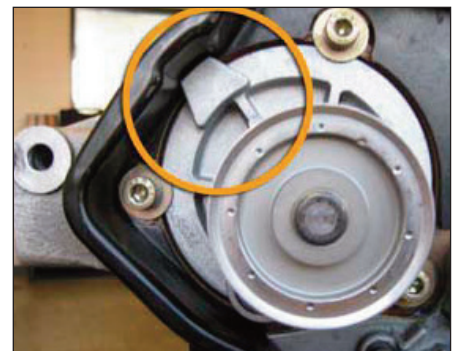


Fig. 3

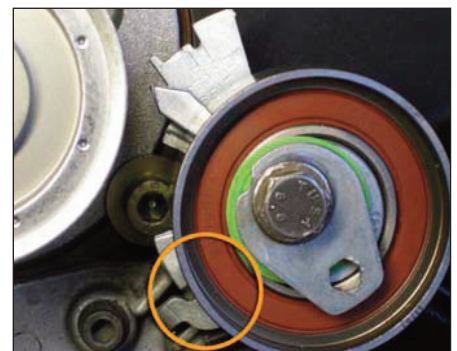


Fig. 4



Fig. 5