

## AST4387

### Petrol Engine Twin Camshaft Setting/Locking Tool Set



**IMPORTANT:** Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the current procedures and data. Product Information Sets detail applications and use of the tools with any general instructions provided as a guide only.

### Applications:

RENAULT 2.0 16v. / 2.5 20v. Twin Camshaft  
petrol engines in

RENAULT

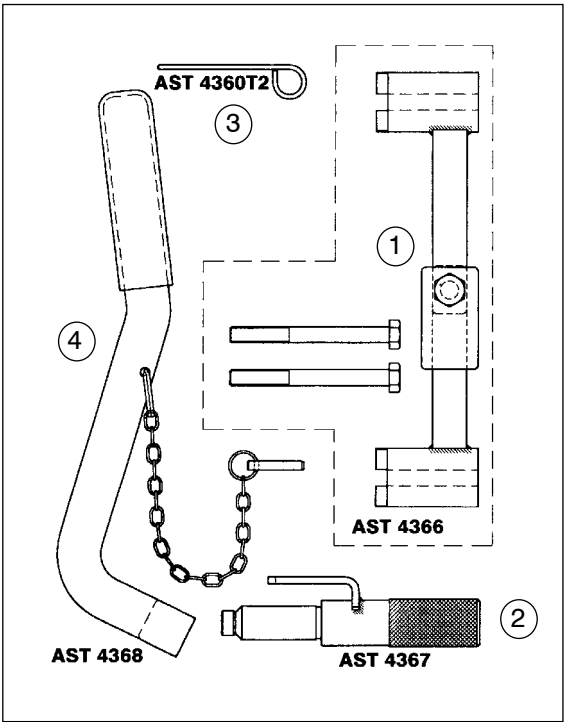
Laguna

Safrane

N7Q & N7U engines

### Additional AST Tools required:

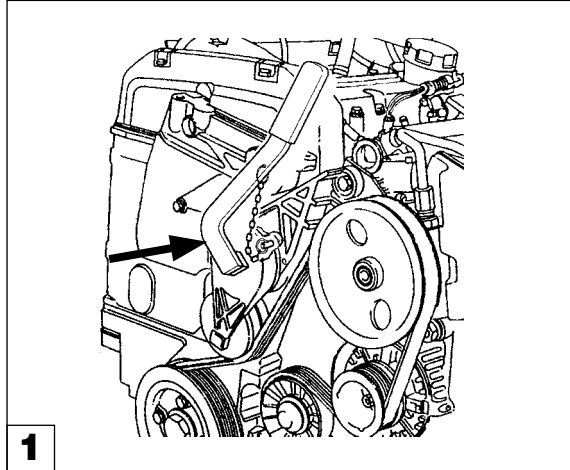
AST4394 Sprocket Holding Tool



### Set contents/spares

Item	Part Number	Description
1	AST4366	Camshaft Setting Tool
2	AST4367	Crankshaft TDC Locking Pin
3	AST4360T2	Tensioner Retaining Pin
4	AST4368	Aux. Belt Tensioner Tool

For timing belt renewal on Renault N7Q/N7U twin cam engines both AST4366 Cam Setting Tool and AST4367 Crankshaft TDC Locking Pin are required. In addition, as the auxiliary and timing belt tensioner are removed and compressed during the application, AST4360T2 Retaining Pin and AST4368 Tensioner Tool are also necessary.



Use AST4368 Auxiliary Belt Tensioner Tool to 'turn and lock' the auxiliary belt tensioner away from the belt.

Follow the service manual instructions to remove the auxiliary belt, its tensioner, the crankshaft pulley, cam cover and cam position sensor/plug to expose the rear of both camshafts.

### AST4366 Camshaft Setting Tool

Turn engine until the grooves in the camshafts align as **Fig. 1**.

Bolt on the two alignment arms of AST4366 Setting Tool and then carefully turn the crankshaft until the arms meet as in **Fig. 2**.

Fit the datum plate and bolt in place, **Fig. 3**.

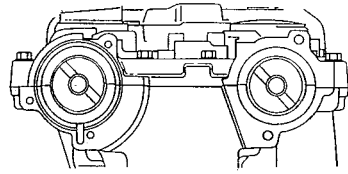
Fit AST4367 Crankshaft TDC Lock Pin through the engine casing into the crankshaft, and remove belt covers to check that the crankshaft timing marks align.

Remove the timing belt tensioner plunger and depress and retain with AST4360T2 Pin.

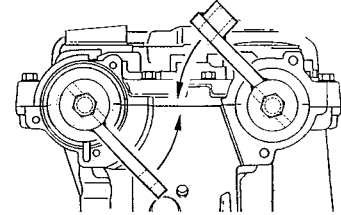
Remove the timing belt.

Ensure the Setting Tool and Crank Pin are in position and crank timing marks are aligned. Slacken cam sprocket bolts whilst counter-holding with AST4394 Holding Tool ( associated tool - not in Kit), and position the sprockets with their retaining bolts in the centre of sprocket slots.

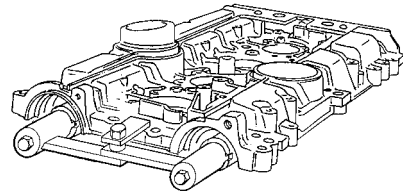
Fit new belt and re-fit tensioner plunger and remove Pin AST4360T2 to activate tensioner.



**Fig 1.**



**Fig 2**



**Fig 3**

**2**

### AST4366 Camshaft Setting Tool

Tighten cam sprocket bolts whilst counter-holding with AST4394 Holding Tool.

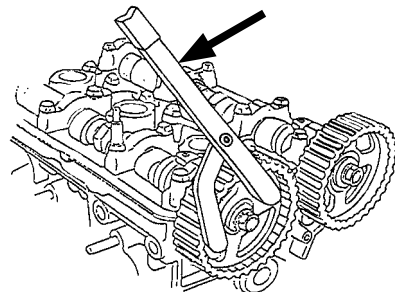
Remove Setting Tool and Crank Pin.

Turn engine two revolutions finishing at a position with the camshaft grooves as Fig. 1 again. Re-fit AST4366 Setting Tool as before and turn crank carefully until arms meet.

Check that Crank Pin AST4367 can be inserted and that all timing marks align.

Check that timing belt is to specified tension.

Remove all tools and re-assemble engine.



**3**

### AST4394 Sprocket Holding Tool – Associated Tool, not in kit