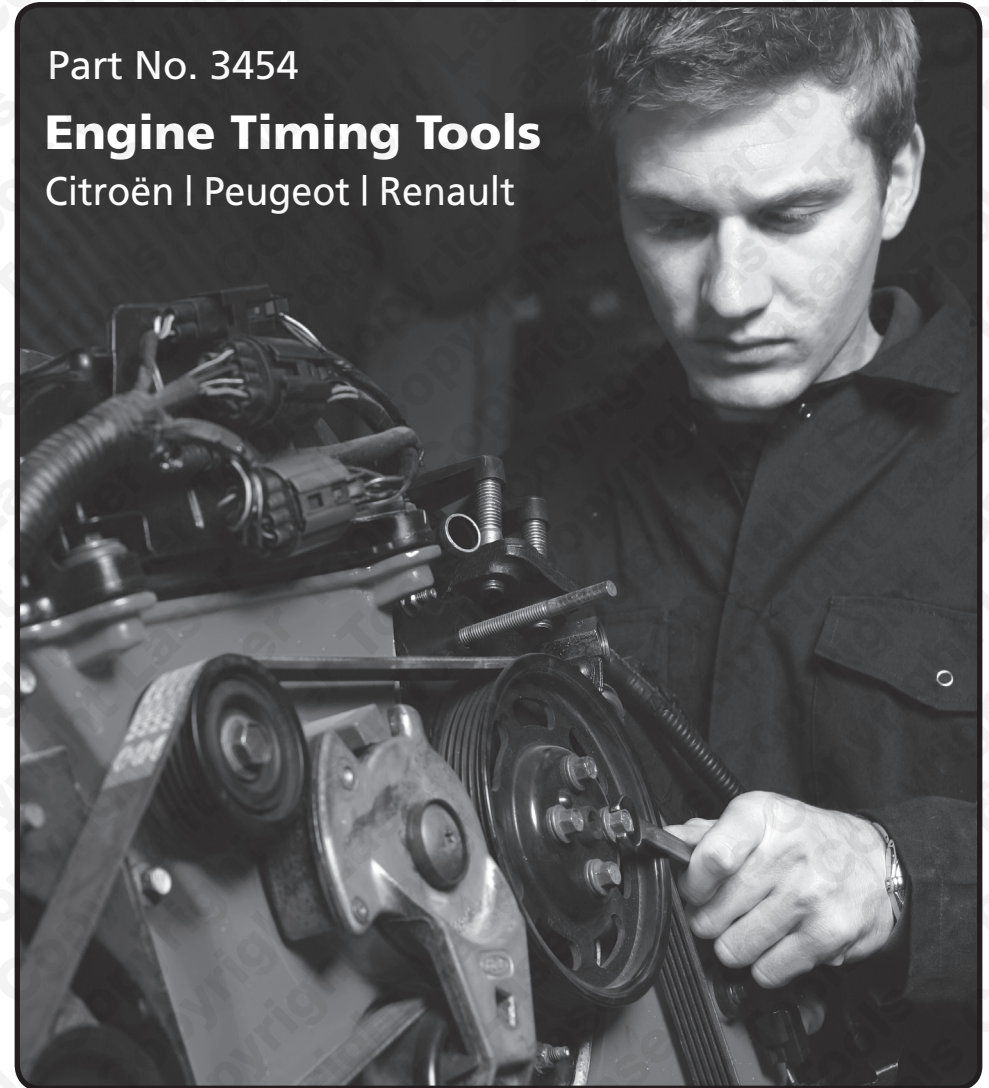


# LASER®

Part No. 3454

## Engine Timing Tools

Citroën | Peugeot | Renault



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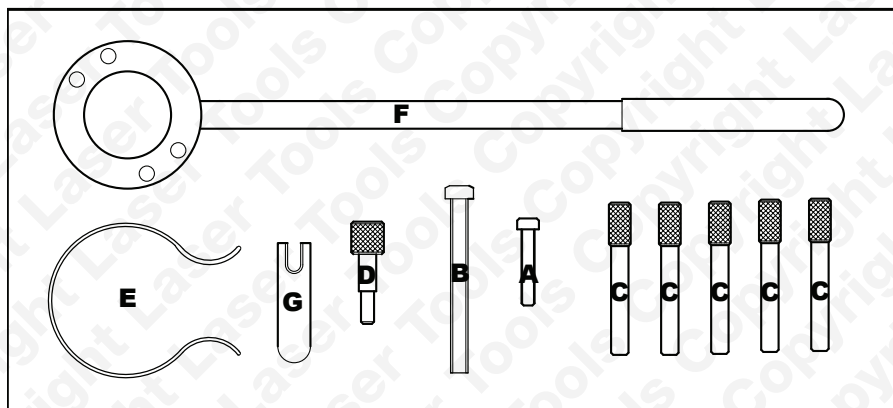
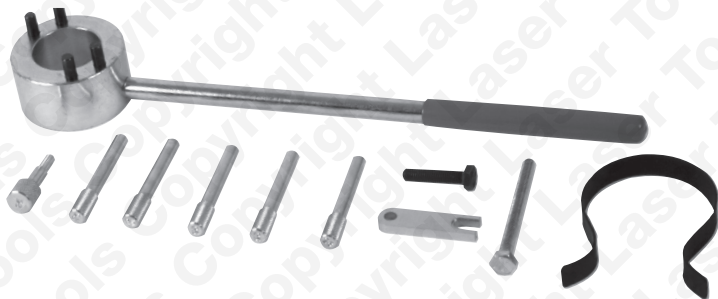
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## Ford Duratorq



Ref	Code	Oem Ref.	Description
A	C063	M8 x 35mm	M8 x 35mm Locking Screw
B	C068	M8 x 70mm	M8 x 70mm Setscrew
C	C101	MOT 1430   0187B	Camshaft/Crankshaft Timing Pin
D	C102	MOT 1430-01   0187A	Timing Pin Gauge
E	C121	MOT 1436   C0187/J	Timing Belt Retaining Clip
F	C122	MOT 1428   0187F	Camshaft Pulley Locking Tool
G	C123	MOT 1429   C0187E	Tensioning Tool

## Warning

**Incorrect or out of phase engine timing can result in damage to the valves. The Tool Connection cannot be held responsible for any damage caused by using these tools in anyway.**

### Safety Precautions – Please read

- If the engine has been identified as an Interference engine, damage to the engine will occur if the timing belt has been damaged. A compression check of all the cylinders should be taken before the cylinder head (s) are removed.
- Do not turn crankshaft or camshaft when the timing belt has been removed
- To make turning the engine easier, remove the spark plugs
- Observe all tightening torques
- Do not turn the engine using the camshaft or any other sprocket
- Disconnect the battery earth lead (Check Radio code is available)
- Do not use cleaning fluids on belts, sprockets or rollers
- Some toothed timing belts are not interchangeable. Check the replacement belt has the correct tooth profile
- Always mark the belt with the direction of running before removal
- Do not lever or force the belt onto its sprockets
- Check the ignition timing after the belt has been replaced.
- Do not use timing pins to lock the engine when slackening or tightening the crankshaft pulley bolts
- ALWAYS REFER TO A REPUTABLE MANUFACTURERS WORKSHOP MANUAL

**Warning – Incorrect or out of phase engine timing can result in damage to the valves. It is always recommended to turn the engine slowly, by hand, and to re-check the camshaft and crankshaft timing positions.**

## Applications

The application list for this product has been compiled cross referencing the OEM Tool Code with the Component Code.

In most cases the tools are specific to this type of engine and are necessary for Cam belt or chain maintenance.

If the engine has been identified as an interference engine valve to piston damage will occur if the engine is run with a broken Cam belt.

A compression check of all cylinders should be performed before removing the cylinder head.

Always consult a suitable work shop manual before attempting to change the Cam belt or Chain.

The use of these engine timing tools is purely down to the user's discretion and Tool Connection cannot be held responsible for any damage caused what so ever.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

Manufacturer	Mode	Type	Engine Code	Year
Citroën	Xantia I XM	3.0 V6	XFZ (ES9J4)	1997-01
Peugeot	406 I Coupé I 605	3.0 V6	ES9J4 (XFZ)	1997-
Renault	Xantia I XM	3.0 V6	XFZ (ES9J4)	1997-01
	Laguna		L7X 700/701/713/727731	1997-2005
Renault	Safrane	3.0 V6 24v	L7X 700/701/713/727731	1997-2005
	Espace	3.0 V6	L7X 700/701/713/727731	1997-2005
	Safrane	3.0 V6 24v	L7X 700/701/713/727731	1997-2005
	Espace	3.0 V6	L7X 700/701/713/727731	1997-2005

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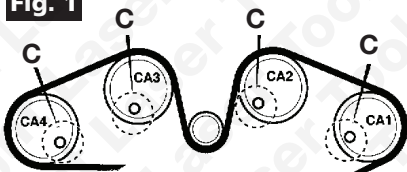


## Instruction

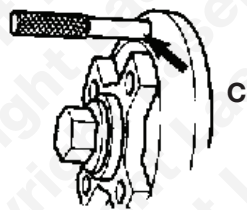
### Timing Belt Removal

1. Espace: Remove engine and transmission assembly.  
Laguna/Safrane: Safely lift and support the front of the vehicle.
2. Remove the R/H front wheel; splash guard and auxiliary drive belt.
3. Disconnect the engine wiring harness.
4. Move obstructing hoses aside.
5. Remove the engine cover, control module (ECM) cover and box.
6. Place the ECM away from the engine.
7. Safely support the engine.
8. Remove the torque reaction link, R/H engine mounting, auxiliary drive belt tensioner assembly and PAS pump pulley.
9. On all models remove the timing belt upper covers, crankshaft pulley bolts using and pulley, timing belt lower cover and bracket.
10. Rotate the crankshaft clockwise to setting position.
11. Insert the 4 x Timing Pins (C) (Fig1) in camshaft sprockets.
12. Slacken the camshaft sprocket bolts.
13. Insert the Crankshaft Setting Pin (C) (Fig. 2) into the crankshaft.
14. Insert the Long Screw B into the tensioner bracket (Fig. 3) and tighten until it touches the bracket.
15. Slacken the 3 x tensioner bolts 1, 2 & 3. Do not slacken bolt 4.
16. Insert Short Screw A into tensioner bracket (Fig. 4)
17. Install Tensioning Fork (G) (Fig. 4) and if necessary slacken Long Screw B.
18. Tighten Short Screw (A) and slacken the Long Screw (B).
19. Remove the old timing belt.

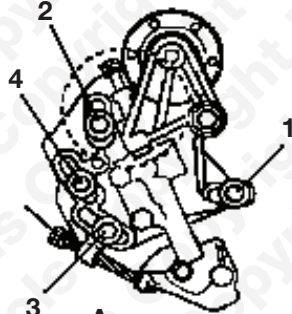
**Fig. 1**



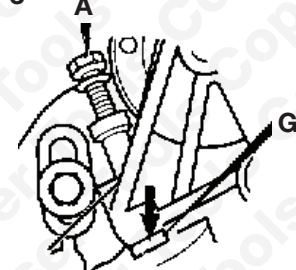
**Fig. 2**



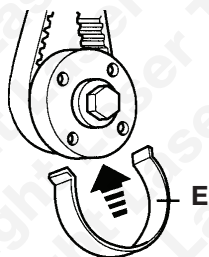
**Fig. 3**



**Fig. 4**



**Fig. 5**



## Instruction

### Timing Belt Installation

1. Check and ensure that the Camshaft and Crankshaft Timing Pins C are located correctly.
2. Ensure that the camshaft sprockets are free to turn then first tighten the Tensioner bolts to 10 Nm. and second slacken by 45°.
3. Turn camshaft sprockets fully clockwise using F and first tighten the camshaft bolts to 5 Nm. and second slacken by 45°.
4. Fit the new timing belt to the crankshaft sprocket and retain in position with Clip E.
5. Fit the belt in anti-clockwise direction noting the correct direction of rotation.
6. Turn each camshaft sprocket to engage in the nearest belt tooth ensuring that the belt remains tight.
7. Remove Clip E.
8. Attach a Belt Tension Gauge and tighten Long Screw B until the correct tension is achieved.
9. Tighten the tensioner bolts and camshaft sprocket bolts from 1-4 to 10Nm. and remove the Tension Gauge and Timing Pins from camshafts and Crankshaft.
10. Slowly rotate the crankshaft clockwise 2 turns.
11. Insert the Crankshaft Timing Pin C and slacken the tensioner bolts by 45°.
12. Remove the Short Screw A
13. Adjust the position of the Long Screw B until the Tensioning Fork G slide freely, but without free play. Adjust if necessary.

14. Wait 2 minutes for the automatic tensioner and new belt to settle, then check that the Tensioning Fork G slides freely without play. Adjust A if necessary.
14. Tighten the tensioner bolts to 25Nm.
15. Remove the Long Screw B and Crankshaft Timing Pin C
16. Repeat steps 10/. & 11/.
17. Use Gauge Pin D to check the correct camshaft position. Adjust if necessary using F in the pulleys.
18. Remove all Timing Tools.
19. Install all components in reverse order of removal.
20. Tighten crankshaft pulley bolts to 25 Nm.
21. Espace: Refit engine and transmission assembly.