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> DAYUAN Camshaft Timing Tool Kit for Ford/Mazda 4.0L SOHC V6 Engines (Model YT-98093)

DAYUAN YT-98093

DAYUAN Camshaft Timing Tool Kit Instruction Manual

Model: YT-98093

1. PRODUCT OVERVIEW

The DAYUAN YT-98093 Camshaft Timing Tool Kit is designed for the precise installation and synchronization of timing components in Ford and Mazda 4.0L 4015CC SOHC 12V V6 engines. This kit provides the necessary tools to correctly position the camshafts and crankshaft during engine timing procedures, ensuring accurate valve timing.

The kit is compatible with various models from 2004-2010, including:

- Ford Explorer
- Ford Ranger
- Ford Mustang
- Ford Land Rover
- Ford L3
- Ford Mountaineer
- Mazda B4000

The tools are constructed from high-quality materials for durability and precision, and come organized in a robust carrying case for convenient storage and transport.



Image 1.1: The DAYUAN Camshaft Timing Tool Kit, Model YT-98093, presented in its protective red carrying case.

2. KIT COMPONENTS

The DAYUAN YT-98093 kit includes the following specialized tools, referenced by their OEM numbers:

- **303-564:** Cam Gear Holding Tool
- **303-573:** Crankshaft Holding Tool
- **303-575:** Cam Gear Bolt Socket & Extension
- **303-576:** Cam Holding Tool Adapter
- **303-577:** Cam Holding Tool
- **303-578:** Cam Gear Holding Tool Adapter
- **303-571:** Timing Chain Tensioner Tool

303-573
Crankshaft Holding Tool



303-564
Cam Gear Holding Tool

Image 2.1: Detailed view of the 303-573 Crankshaft Holding Tool and 303-564 Cam Gear Holding Tool.



Image 2.2: Assortment of timing tools including cam holding tools, adapters, tensioner tool, and socket extension.

3. SAFETY INFORMATION

Always prioritize safety when working on vehicle engines. Wear appropriate personal protective equipment (PPE) such as safety glasses and gloves. Ensure the vehicle is securely supported on jack stands and the battery is disconnected before beginning any work. Refer to the vehicle manufacturer's service manual for specific procedures and torque specifications.

4. SETUP AND PREPARATION

1. **Vehicle Preparation:** Park the vehicle on a level surface, engage the parking brake, and disconnect the negative battery terminal.
2. **Access Engine Components:** Remove any components obstructing access to the timing chain, camshafts, and crankshaft. This may include valve covers, front engine cover, and crankshaft pulley.
3. **Engine Positioning:** Rotate the crankshaft to bring the engine to Top Dead Center (TDC) on the compression stroke for cylinder 1, or as specified by the vehicle service manual for timing chain removal.

5. OPERATING INSTRUCTIONS

These instructions provide a general guide for using the DAYUAN YT-98093 timing tool kit. Always consult the specific vehicle service manual for detailed, model-specific procedures and torque values.

5.1. Securing Camshafts and Crankshaft

1. **Cam Gear Holding Tool (303-564) and Adapter (303-578):** Use the 303-564 Cam Gear Holding Tool in conjunction with the 303-578 adapter to secure the camshaft gears in their correct timed position. This prevents rotation during timing chain removal or installation.

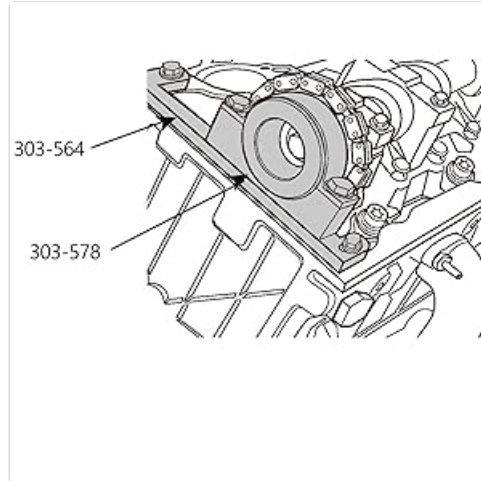


Image 5.1: The 303-564 and 303-578 tools correctly positioned on the camshaft gear.

2. **Crankshaft Holding Tool (303-573):** Install the 303-573 Crankshaft Holding Tool to lock the crankshaft in its timed position. This is critical for maintaining crankshaft alignment during timing chain service.

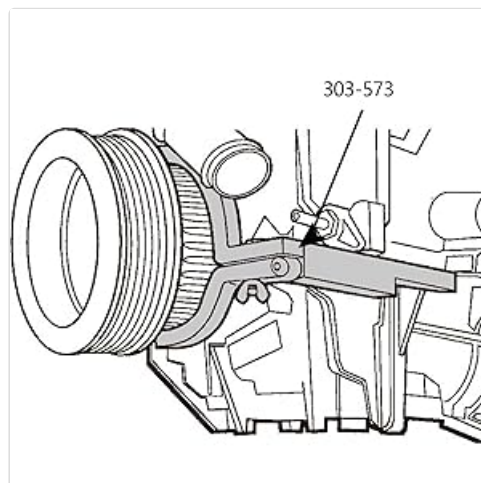


Image 5.2: The 303-573 tool securing the crankshaft in place.

3. **Cam Holding Tool (303-577) and Adapter (303-576):** Utilize the 303-577 Cam Holding Tool with the 303-576 adapter to further secure the camshafts, preventing any unwanted movement during the timing procedure.

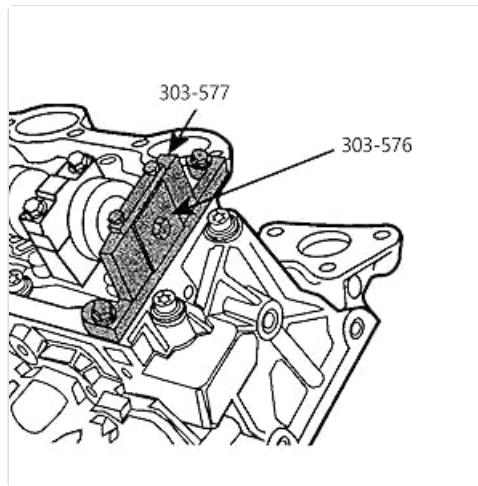


Image 5.3: The 303-577 and 303-576 tools engaged with the camshaft.

5.2. Timing Chain Tensioner and Cam Gear Bolt

1. **Timing Chain Tensioner Tool (303-571):** Use the 303-571 tool to compress or release the timing chain tensioner as required by the service procedure. This tool is essential for proper timing chain installation or removal.

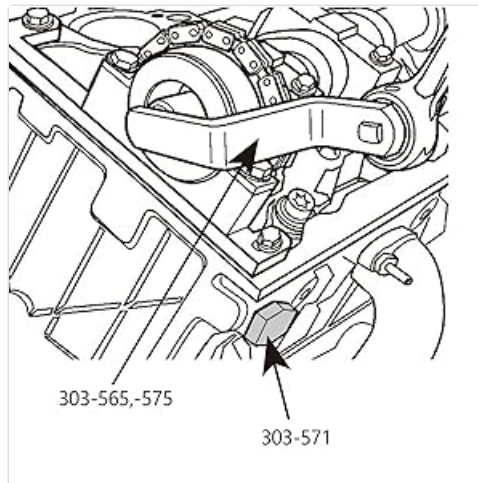


Image 5.4: The 303-571 tool interacting with the timing chain tensioner, alongside the 303-565/303-575 socket.

2. **Cam Gear Bolt Socket & Extension (303-565, 303-575):** The 303-565 and 303-575 socket and extension are used for removing and installing the cam gear bolts, ensuring proper torque application.

5.3. Final Steps

1. After installing the timing chain and components, remove all special tools.
2. Rotate the engine manually through two full revolutions to verify correct timing marks alignment.
3. Reassemble all removed engine components, ensuring all fasteners are torqued to manufacturer specifications.

6. MAINTENANCE

To ensure the longevity and reliability of your DAYUAN timing tool kit:

- Clean tools thoroughly after each use to remove oil, grease, and debris.
- Store tools in their original carrying case in a dry environment to prevent rust and damage.
- Inspect tools periodically for any signs of wear, damage, or deformation. Do not use damaged tools.

7. TROUBLESHOOTING

If you encounter difficulties during the timing procedure:

- **Tools not fitting:** Double-check the vehicle's year, make, model, and engine type against the kit's compatibility list. Ensure the engine is positioned correctly as per the service manual.
- **Timing marks not aligning:** Re-verify all timing marks on the crankshaft and camshafts. Ensure the timing chain is installed correctly and tensioned properly.
- **Difficulty with tool operation:** Ensure all bolts and fasteners are loosened sufficiently before attempting to install or remove holding tools. Do not force tools into position.

Always refer to the vehicle's official service manual for specific troubleshooting steps related to engine timing.

8. SPECIFICATIONS

Specification	Detail
Model Number	YT-98093
Compatible Engines	Ford/Mazda 4.0L 4015CC SOHC 12V V6
OEM Reference Numbers	303-564, 303-571, 303-575, 303-576, 303-577, 303-578
Item Weight	8.34 pounds
Package Dimensions	14.61 x 11.5 x 4.17 inches
Manufacturer	Yinyuan Tools

8.1. Application Chart

For a comprehensive list of compatible vehicles and specific tool applications, refer to the Ford Tool Application Chart below. This chart details various Ford and Lincoln models, engine types, and the corresponding tool part numbers.

Ford Tool Application Chart

Year	Make & Model	Engine	Tool Description	OTC Part No.	Ford No. American Part No.	Ford Global Part No.
1995-1997	Aerostar	3.0L V6	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1996-1998	Aerostar	4.0L V6	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1994-2002	Contour	2.0L 4 cyl. DOHC Zetec	Cam Alignment Tool	6474 (511541)	T94P-6256-CH	303-465
1997-2002	Contour	2.0L 4 cyl. DOHC Zetec	Crankshaft TDC Timing Pin	6475 (511542)	T97P-6000-A	303-574
1991-1998	Crown Victoria	4.6L 2V V8	Cam Positioning Tool	6009 (511532)	T91P-6256-A	303-380
1992-1998	Crown Victoria	4.6L 2V V8	Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1997-2002	Econoline	4.2L V6	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1997-1998	Econoline	4.6L & 5.4L V8, 6.8L V10	Cam Positioning Tool	6009 (511532)	T91P-6256-A	303-380
			Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1997-2002	Econoline	4.6L & 5.4L	Cam Positioning Tool Set	6476 (511543 & -4)	T96T-6256-AR	303-S568
1997-2002	Econoline	5.4L V8	Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1997-2002	Econoline	6.8L V10	Cam Positioning Tool Set	6476 (511543 & -4)	T96T-6256-AR	303-S568
			Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1997-2002	Econoline	Windsor V8	Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1997-1998	Expedition	5.4L V8	Cam Positioning Tool	6009 (511532)	T91P-6256-A	303-380
			Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1997-2002	Expedition	5.4L V8	Cam Positioning Tool Set	6476 (511543 & -4)	T96T-6256-AR	303-S568
			Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1996-1998	Explorer	4.0L V6	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1997-2002	Explorer	4.0L SOHC V6	Cam Gear Holding Tool	6478 (511546)	T97T-6256-B	303-564
			Crankshaft Holding Tool	6479 (511547)	T97T-6303-A	303-573
			Cam Holding Tool Adapter	6480 (511548)	T97T-6256-D	303-576
			Cam Holding Tool	6481 (511549)	T97T-6256-C	303-577
			Cam Gear Holding Tool Adapter	6482 (511550)	T97T-6256-A	303-578
			Timing Chain Tensioner Tool	6484 (511552)	T97T-6K254-A	303-571
			Cam Gear Bolt Socket & Ext.	6485 (511553 & -4)	T97T-6256-F, -G	303-565, -575
1999-2002	Explorer	4.0L Push Rod V6	Cam Sensor Synch Tool	6483 (511551)		303-638
1996-1998	Explorer	5.0L V8	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1999-2002	Explorer	5.0L V8	Cam Sensor Synch Tool	6470 (511537)		303-630
1997-2002	F-Series Truck	4.2L V6	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1997-1998	F-Series Truck	4.6L & 5.4L V8	Cam Positioning Tool	6009 (511532)	T91P-6256-A	303-380
			Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1997-2002	F-Series Truck	4.6L & 5.4L	Cam Positioning Tool Set	6476 (511543 & -4)	T96T-6256-AR	303-S568
1997-2002	F-Series Truck	5.4L V8	Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1997-2002	F-Series Truck	Windsor V8	Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1994-1995	Mustang	3.8L V6	Cam Sensor Synch Tool	6467 (511534)	T89P-12200-A	303-358
1996-1998	Mustang	3.8L V6	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1999-2002	Mustang	3.8L V6	Cam Sensor Synch Tool	6470 (511537)		303-630
1993-1997	Probe	2.0L 4 cyl.	Cam Pulley Holding Tool	6468 (511535)	T92C-6256-AH	303-398
1989-1997	Ranger	2.3L, 4 cyl. dual plug	Crankshaft Sensor Positioner	6466 (511533)	T89P-6316-A	303-354
1995-1997	Ranger	3.0L V6	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1998-2002	Ranger	3.0L V6	Cam Sensor Synch Tool	6473 (511540)		303-589
1996-1998	Ranger	4.0L V6	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1993-1995	Taurus	3.0L V6	Cam Sensor Synch Tool	6471 (511538)	T93P-12200-A	303-453
1996-1997	Taurus	3.0L V6 2-valve	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1998-2002	Taurus	3.0L V6	Cam Sensor Synch Tool	6473 (511540)		303-589
1989-1995	Thunderbird	Supercharged 3.8L V6	Cam Sensor Synch Tool	6467 (511534)	T89P-12200-A	303-358
1990-1995	Thunderbird	3.8L V6	Cam Sensor Synch Tool	6467 (511534)	T89P-12200-A	303-358
1997	Thunderbird	3.8L V6	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1995-1997	Windstar	3.0L V6	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1998-2002	Windstar	3.0L V6	Cam Sensor Synch Tool	6473 (511540)		303-589
1995	Windstar	3.8L V6	Cam Sensor Synch Tool	6467 (511534)	T89P-12200-A	303-358
1996-1998	Windstar	3.8L V6	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1999-2002	Windstar	3.8L V6	Cam Sensor Synch Tool	6470 (511537)		303-630
1998	Lincoln Navigator	5.4L V8	Cam Positioning Tool	6009 (511532)	T91P-6256-A	303-380
			Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1998-2002	Lincoln Navigator	5.4L V8	Cam Positioning Tool Set	6476 (511543 & -4)	T96T-6256-AR	303-S568
			Cam Holding Tool	6477 (511545)	T96T-6256-B	303-557
1989-1995	Cougar	Supercharged 3.8L V6	Cam Sensor Synch Tool	6467 (511534)	T89P-12200-A	303-358
1990-1995	Cougar	3.8L V6	Cam Sensor Synch Tool	6467 (511534)	T89P-12200-A	303-358
1997	Cougar	3.8L V6	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1991-1998	Grand Marquis	4.6L 2V V8	Cam Positioning Tool	6009 (511532)	T91P-6256-A	303-380
1992-1998	Grand Marquis	4.6L 2V V8	Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1997-2002	Mountaineer	4.0L SOHC V6	Cam Gear Holding Tool	6478 (511546)	T97T-6256-B	303-564
			Crankshaft Holding Tool	6479 (511547)	T97T-6303-A	303-573
			Cam Holding Tool Adapter	6480 (511548)	T97T-6256-D	303-576
			Cam Holding Tool	6481 (511549)	T97T-6256-C	303-577
			Cam Gear Holding Tool Adapter	6482 (511550)	T97T-6256-A	303-578
			Timing Chain Tensioner Tool	6484 (511552)	T97T-6K254-A	303-571
			Cam Gear Bolt Socket & Ext.	6485 (511553 & -4)	T97T-6256-F, -G	303-565, -575
1999-2002	Mountaineer	4.0L Push Rod V6	Cam Sensor Synch Tool	6483 (511551)		303-638
1996-1998	Mountaineer	5.0L V8	Cam Sensor Synch Tool	6469 (511536)	T96T-12200-A	303-562
1999-2002	Mountaineer	5.0L V8	Cam Sensor Synch Tool	6470 (511537)		303-630
1994-2002	Mystique	2.0L 4 cyl. DOHC Zetec	Cam Alignment Tool	6474 (511541)	T94P-6256-CH	303-465
1997-2002	Mystique	2.0L 4 cyl. DOHC Zetec	Crankshaft TDC Timing Pin	6475 (511542)	T97P-6000-A	303-574
1993-1995	Sable	3.0L V6	Cam Sensor Synch Tool	6471 (511538)	T93P-12200-A	303-453
1996-1997	Sable	3.0L V6 2-valve	Cam Sensor Synch Tool	6472 (511539)	T95T-12200-A	303-529
1998-2002	Sable	3.0L V6	Cam Sensor Synch Tool	6473 (511540)		303-589

Image 8.1: Ford Tool Application Chart for various models and engine types.

9. WARRANTY INFORMATION

For specific warranty details regarding the DAYUAN YT-98093 Camshaft Timing Tool Kit, please refer to the warranty documentation included with your purchase or contact DAYUAN customer support directly. Warranty terms typically cover manufacturing defects under normal use conditions.

10. CUSTOMER SUPPORT

If you have any questions, require assistance with the product, or need to report an issue, please contact DAYUAN customer support. Contact information can typically be found on the product packaging or the official DAYUAN website.