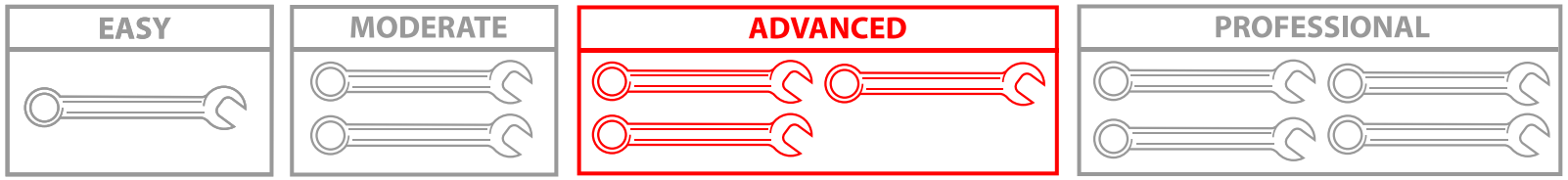
BMW M42/M54
Camshaft Alignment Tool Set

INTRODUCTION

Schwaben BMW M42/M54 Camshaft Alignment Tool Set ES#2778117

The Schwaben BMW M42/M54 Camshaft Alignment Tool Set includes the following components:

- Camshaft Locking Blocks
- Crankshaft Locking Pin
- Timing Chain Tensioner Pins (Only for M50/M52)
- Blow Molded case with foam cutouts for each tool to prevent knicks and damage



BASIC SKILLS REQUIRED

SOME EXPERIENCE RECOMMENDED

ADVANCED SKILLS & EXPERIENCE REQUIRED

PROFESSIONAL SKILLS & SPECIALTY TOOLS REQUIRED

Timing chain and guide replacement is a common service for BMW owners with high mileage engines in the M42/M54 class. The most important part of the job is proper chain alignment. No matter the extent of the repair, our Schwaben Camshaft Alignment tools will make sure your engine is timed perfectly and will make easy work of the entire job. This brief introduction to our tool set offers you a glimpse of the simplicity in which they can be used. Thank you for purchasing our Schwaben Camshaft Alignment Tool Set. We appreciate your business!

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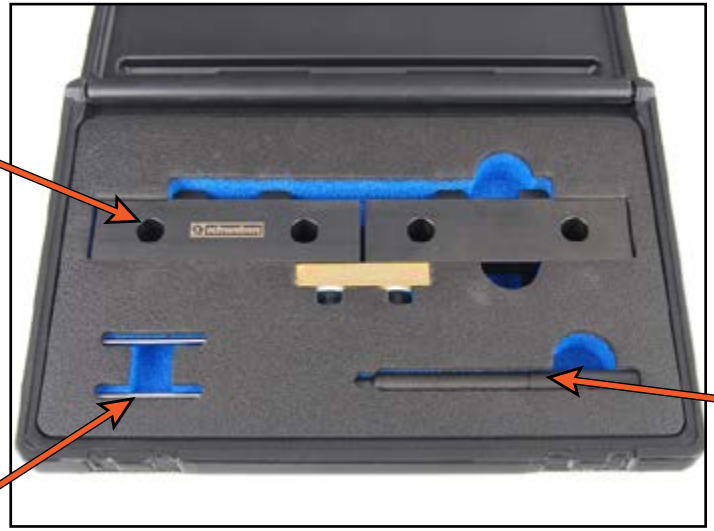
NOTE

These instructions are intended as a general overview of our alignment tool installation. If you are not familiar with this engine or timing chain repair in general, please refer to the proper service information for your vehicle.

CAMSHAFT ALIGNMENT TOOL SET CONTENTS

Camshaft Alignment Blocks

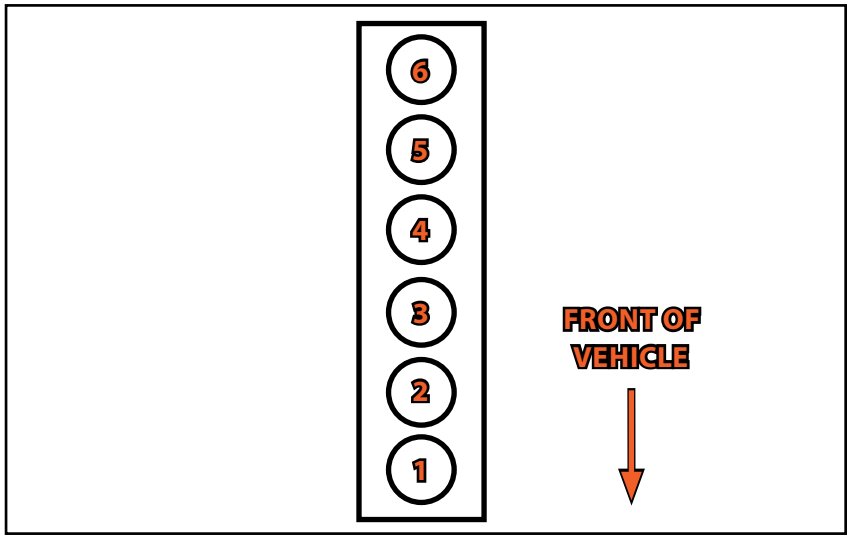


Timing Chain Tensioner Pins (Only for M50/M52)

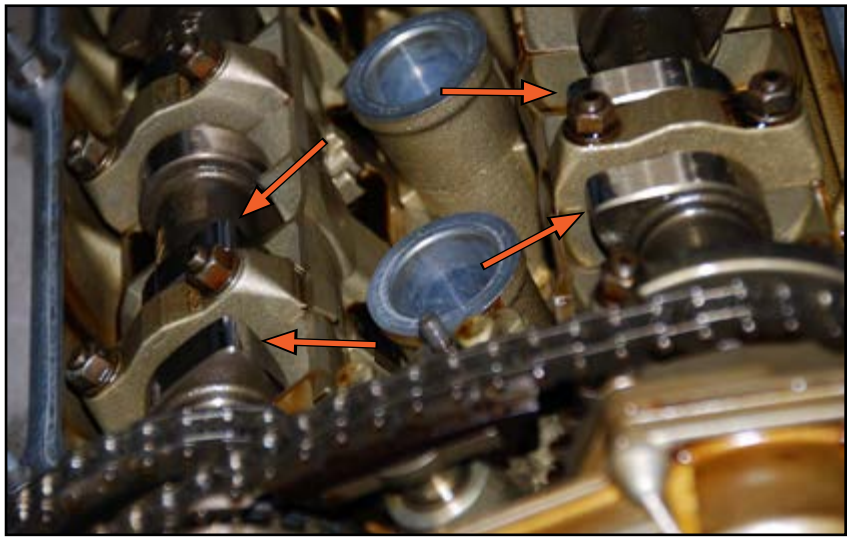
Crankshaft Locking Pin

M42/M54 ENGINE TIMING

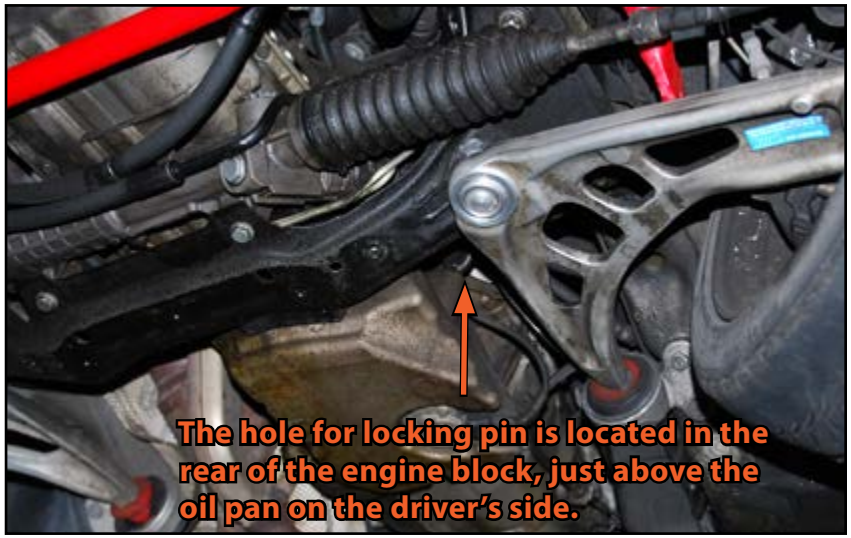
Cylinder number one is at the front of the engine as shown in the illustration.



Rotate the engine clockwise until the cam lobes on cylinder one are pointing towards each other as shown in the picture. This will position the engine at TDC, cylinder#1.



- [ ] Position the engine at TDC Cylinder#1.
- [ ] On the lower LH (Driver's) side of the engine block, there is a plug in the hole for the Crankshaft Locking Pin. The plug (and hole) is difficult to see. Refer to the photos on the right for location, then remove the plug. You may need to grasp the end of it with a small pair of pliers in order to pull it out.
- [ ] Once you have removed the plug, insert the Crankshaft Locking Pin into the hole.
- [ ] Rotate the engine slightly as necessary until the hole in the flywheel/flexplate lines up and the pin slides into place.



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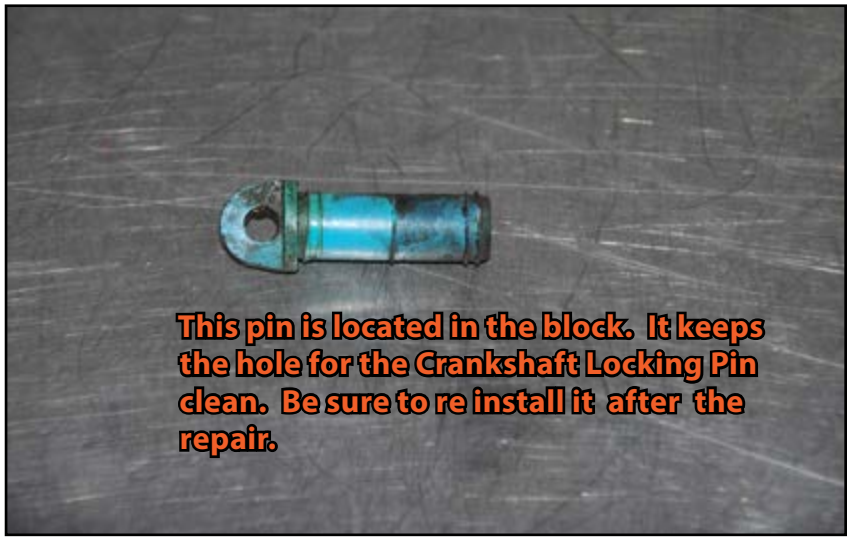

- [ ] Position the engine at TDC Cylinder #1, install the Crankshaft Locking Pin.
- [ ] Remove the three valve cover studs on the end of the cylinder head.
- [ ] Slightly loosen the hex bolts on the Camshaft Alignment Blocks.
- [ ] Slide the alignment blocks in place over the end of the camshafts until they are resting on the cylinder head.
- [ ] Tighten the hex bolts.

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M42/M54 Camshaft Alignment Tool

These instructions are provided as a courtesy by ECS Tuning.

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.