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› COMP Cams K20-233-4 Camshaft Kit Instruction Manual

Comp Cams K20-233-4

COMP Cams K20-233-4 Camshaft Kit Instruction Manual

Your guide to installing, operating, and maintaining your COMP Cams K20-233-4 Camshaft Kit.

INTRODUCTION

The COMP Cams K20-233-4 Camshaft Kit is engineered for enhanced engine performance. This manual provides essential information for the proper installation, operation, and maintenance of your new camshaft kit. Adhering to these guidelines will ensure optimal performance and longevity of the components.

This kit includes a camshaft, lifters, valve springs, retainers, valve locks, and a timing chain set, all designed to work together seamlessly for a complete valvetrain upgrade.

SETUP AND INSTALLATION

Proper installation is crucial for the performance and durability of your camshaft kit. It is recommended that installation be performed by a qualified automotive technician.

Component Identification



Figure 1: Overview of the COMP Cams K20-233-4 Camshaft Kit components. This image displays all parts included in the kit, such as the camshaft, lifters, valve springs, retainers, valve locks, and timing chain set, arranged for clear identification.

Before beginning installation, verify that all components listed in your kit are present and undamaged. Familiarize yourself with each part:

- **Camshaft:** The central component, responsible for controlling valve timing.
- **Hydraulic Lifters:** Ensure proper valve actuation and maintain zero lash.
- **Valve Springs:** Designed to match the camshaft's lift and duration, ensuring proper valve control.
- **Retainers and Valve Locks:** Secure the valve springs to the valves.
- **Timing Chain Set:** Connects the crankshaft to the camshaft, synchronizing their rotation.

Pre-Installation Checks

1. Ensure the engine block and cylinder heads are clean and free of debris.
2. Inspect all mating surfaces for flatness and cleanliness.
3. Verify proper clearances for all valvetrain components according to engine specifications.
4. Lubricate all camshaft lobes and lifter bases with appropriate camshaft break-in lubricant before installation.

Refer to a comprehensive engine service manual for vehicle-specific disassembly and reassembly procedures.

OPERATION GUIDELINES

After installation, a critical break-in procedure is required for new camshafts and lifters to ensure proper seating and prevent premature wear. Failure to follow break-in procedures can lead to permanent damage.

Camshaft Break-In Procedure

1. Fill the engine with a high-quality engine oil specifically formulated for camshaft break-in, typically containing high levels of ZDDP (Zinc Dialkyldithiophosphate).

2. Start the engine and immediately bring the RPMs up to 2000-2500 RPM. Vary the engine speed between 2000-2500 RPM for the first 20-30 minutes of operation. Do not allow the engine to idle during this period.
3. Monitor oil pressure and engine temperature closely.
4. After the initial break-in period, allow the engine to cool completely.
5. Change the engine oil and filter to remove any break-in contaminants.
6. Continue to avoid prolonged idling and heavy loads for the first 500 miles of operation.

Consult your engine builder or a reputable automotive performance guide for specific break-in recommendations tailored to your engine application.

MAINTENANCE

Regular maintenance is essential to preserve the performance and extend the life of your COMP Cams K20-233-4 Camshaft Kit and associated engine components.

- **Oil Changes:** Adhere to a strict oil change schedule using high-quality engine oil with adequate anti-wear additives (like ZDDP) to protect camshaft lobes and lifters.
- **Valve Lash Inspection:** Periodically check valve lash (if applicable to your engine type) and adjust as necessary to maintain optimal valvetrain geometry.
- **Component Inspection:** During routine engine maintenance, visually inspect valve springs for signs of fatigue or breakage, and check for unusual wear patterns on rocker arms or pushrods.
- **Timing Chain Tension:** Ensure proper tension of the timing chain to prevent slack, which can lead to timing inaccuracies and wear.

TROUBLESHOOTING

This section addresses common issues that may arise after installing a camshaft kit. Always consult a professional mechanic if you are unsure about diagnosing or repairing engine problems.

Symptom	Possible Cause	Solution
Excessive Valvetrain Noise	Improper valve lash, worn lifters, inadequate oil pressure, incorrect spring pressure.	Check valve lash, inspect lifters, verify oil pressure, test valve spring pressure.
Reduced Engine Performance	Incorrect camshaft timing, worn camshaft lobes, improper break-in, fuel/air mixture issues.	Verify timing, inspect camshaft, ensure proper break-in, check fuel system and ignition.
Oil Consumption / Smoke	Worn valve seals, improper PCV system operation.	Inspect and replace valve seals, check PCV valve and hoses.

SPECIFICATIONS

Key specifications for the COMP Cams K20-233-4 Camshaft Kit and related product information:

Attribute	Detail
Manufacturer	Competition Cams

Attribute	Detail
Brand	Comp Cams
Item Model Number	K20-233-4
Manufacturer Part Number	K20-233-4
OEM Part Number	K20-233-4
Product Dimensions	63.5 x 26.16 x 13.46 cm
Item Weight	11.1 kg
ASIN	B001R9DTNI
Date First Available	Sept. 21 2012

WARRANTY AND SUPPORT

The COMP Cams K20-233-4 Camshaft Kit is backed by the manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official Comp Cams website. For technical support, installation assistance, or warranty claims, please contact Comp Cams directly through their official customer service channels. Always provide your product model number (K20-233-4) and purchase details when seeking support.

Note: Unauthorized modifications or improper installation may void the product warranty.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question