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> Speedmaster PCE415.1039 Serpentine Pulley Kit for Chevy SBC Long Water Pump with Type 2 Power Steering Pump - Instruction Manual

Speedmaster PCE415.1039

Speedmaster PCE415.1039 Serpentine Pulley Kit Instruction Manual

For Chevy SBC Long Water Pump with Type 2 Power Steering Pump

1. PRODUCT OVERVIEW

The Speedmaster PCE415.1039 Serpentine Pulley Kit is designed for Chevy Small Block (SBC) engines utilizing a long water pump and a Type 2 power steering pump. This kit features a serpentine pulley style with a high water flow ratio, constructed from billet aluminum with a clear anodized finish. It includes crankshaft, water pump, alternator, and power steering pulleys.

Key Features:

- 415 Pulley Kit configuration.
- Manufactured from billet aluminum for durability and precision.
- Clear anodized finish for corrosion resistance and aesthetic appeal.
- Designed for high water flow ratio.
- Includes crankshaft, water pump, alternator, and power steering pulleys.



Figure 1: Overview of the Speedmaster PCE415.1039 Serpentine Pulley Kit components.

2. SAFETY INFORMATION

WARNING: This product is intended for racing applications only and is not for street use. Installation should be performed by a qualified professional. Always wear appropriate personal protective equipment (PPE) including safety glasses and gloves when working on automotive systems. Ensure the engine is off, cool, and the battery is disconnected before beginning any installation or maintenance procedures. Refer to your vehicle's service manual for specific safety precautions.

3. SETUP AND INSTALLATION

This section provides general guidance for installing the Speedmaster PCE415.1039 Serpentine Pulley Kit. Specific steps may vary based on your vehicle's configuration. Professional installation is highly recommended.

3.1 Pre-Installation Checks

- Verify all kit components are present and undamaged: crankshaft pulley, water pump pulley, alternator pulley, power steering pulley, and any associated hardware.
- Ensure your engine is a Chevy Small Block (SBC) with a long water pump and Type 2 power steering pump for compatibility.

- Gather necessary tools, including wrenches, sockets, torque wrench, and belt tensioning tools.

3.2 Removal of Existing Components

1. Disconnect the vehicle's battery.
2. Drain the cooling system if removing the water pump.
3. Loosen the tension on the existing serpentine belt and remove it.
4. Carefully remove the old pulleys (crankshaft, water pump, alternator, power steering) and any associated brackets. Note their orientation and mounting points.

3.3 Installation of New Pulleys and Brackets

1. Install the new water pump (if applicable) and water pump pulley according to manufacturer specifications.
2. Mount the alternator and its new pulley, ensuring proper alignment.
3. Install the power steering pump and its new pulley.
4. Attach the crankshaft pulley.
5. Ensure all pulleys are securely fastened and aligned. Misalignment can lead to premature belt wear and system failure.
6. Install the new serpentine belt, routing it correctly around all pulleys.
7. Adjust belt tension to the vehicle manufacturer's specifications. Over-tensioning or under-tensioning can cause damage.

Your browser does not support the video tag.

Video 1: Demonstrates an adjustable alternator bracket for Chevy long water pumps, similar to components in this kit. This video highlights the adjustability feature for proper belt tensioning.

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Video 2: Shows a double groove power steering pump pulley, illustrating the type of component included in the kit and its fitment.

3.4 Post-Installation

- Reconnect the battery.
- Refill the cooling system and power steering fluid to appropriate levels.
- Start the engine and check for proper belt operation, unusual noises, or vibrations.
- Inspect for any fluid leaks.

4. OPERATING THE SERPENTINE SYSTEM

The serpentine pulley system is designed to efficiently drive multiple engine accessories (alternator, water pump, power steering pump) using a single, continuous belt. Once installed correctly, the system operates automatically with the engine.

- **Normal Operation:** The belt should run smoothly without slipping or excessive noise.
- **Monitoring:** Periodically check the belt for proper tension and wear. Listen for any squealing or grinding sounds, which may indicate an issue.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your serpentine pulley system.

- **Belt Inspection:** Regularly inspect the serpentine belt for cracks, fraying, glazing, or missing ribs. Replace the belt if any signs of wear are present.
- **Pulley Inspection:** Check pulleys for any signs of damage, excessive wear, or wobble. Ensure they spin freely

without binding.

- **Tension Check:** Verify that the belt tension is within the manufacturer's recommended specifications. Adjust as necessary.
- **Cleaning:** Keep the pulleys and belt free from dirt, oil, and other contaminants.

6. TROUBLESHOOTING

| Symptom | Possible Cause | Solution |
|-------------------------|---|--|
| Belt squealing/chirping | Loose belt, worn belt, misaligned pulleys, contaminated belt/pulleys. | Check/adjust belt tension. Inspect and replace worn belt. Verify pulley alignment. Clean belt and pulleys. |
| Excessive vibration | Damaged pulley, loose mounting hardware, unbalanced component. | Inspect pulleys for damage. Tighten all mounting bolts. Consult a professional if vibration persists. |
| Belt coming off pulley | Severe pulley misalignment, incorrect belt length, worn tensioner. | Check pulley alignment meticulously. Ensure correct belt length. Inspect and replace tensioner if faulty. |

7. SPECIFICATIONS

- **Part Number:** PCE415.1039
- **Brand:** Speedmaster
- **Pulley Style:** Serpentine
- **Pulley Set Style:** High water flow ratio
- **Pulley Material:** Billet aluminum
- **Pulley Finish:** Clear Anodized
- **Crankshaft Pulley Included:** Yes
- **Water Pump Pulley Included:** Yes
- **Alternator Pulley Included:** Yes
- **Power Steering Pulley Included:** Yes
- **Power Steering Pulley Bore Diameter:** 0.669 inches
- **Groove Quantity:** 6
- **Hardware Included:** No (Note: Some videos show hardware, but product description states 'No'. Adhering to product description.)
- **Water Pump Type:** Long
- **Item Weight:** 6.2 pounds
- **Product Dimensions:** 13 x 6 x 6 inches

8. WARRANTY INFORMATION

This Speedmaster product comes with a **12-Month Limited Worldwide Warranty**. For specific terms and conditions, please refer to the official Speedmaster warranty documentation or contact customer support.

9. CUSTOMER SUPPORT

For further assistance, technical support, or warranty claims, please visit the official Speedmaster website or contact their customer service department. You can also visit the [Speedmaster Store on Amazon](#).

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