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- 6 Sigma Custom Carburetor Jet Kit Instruction Manual for Linhai LH260 ATV

6 Sigma SI0001196

6 Sigma Custom Carburetor Jet Kit Instruction Manual

For Linhai LH260 ATV Quad 2x4 4x4

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your 6 Sigma Custom Carburetor Jet Kit. This kit is specifically designed to optimize the performance of your Linhai LH260 ATV's carburetor, ensuring efficient fuel delivery and preventing engine damage caused by lean running conditions. Proper installation and tuning are crucial for achieving the intended benefits.

2. KIT CONTENTS

Your 6 Sigma Custom Carburetor Jet Kit is tailored to your specific vehicle and modifications. The kit typically includes the following components:

- Main Jets: For full throttle fuel delivery.
- Needle Adjusters: For mid-range throttle adjustments.
- Nylon Spacers: Used with needle adjusters.
- Drill Bits: Specific sizes for slide hole modification (CV carbs), idle mixture modification, and slide spring modification (CV carbs).
- Carburetor Schematic: A diagram of your carburetor for identification of components.
- Specifications: Detailed vehicle and carburetor specifications.
- Carb Synchronizer Tool (How-to-Build): Instructions for constructing a simple synchronizer tool.
- Carburetor Cleaning Procedure: Step-by-step guide for thorough cleaning.
- Proper Tuning Techniques: Guidance on fine-tuning your carburetor.
- Step-by-Step Instructions with Photos: Comprehensive installation guide.

Note: The exact contents may vary slightly based on your specific vehicle and modifications.



This diagram provides a clear overview of the 6 Sigma Jet Kit's components and the performance benefits it offers. It visually represents the various parts included, such as main jets, needle adjusters, and drill bits, alongside a graph demonstrating horsepower improvements. The diagram also features images of powersports vehicles, emphasizing the kit's versatility.

3. SETUP AND INSTALLATION

Installation of the 6 Sigma Jet Kit requires careful attention to detail. It is recommended that this procedure be performed by individuals with mechanical aptitude. Only basic hand tools are required.

- 1. **Provide Vehicle Information:** Before receiving your kit, ensure you have provided your exact year, model, any modifications made (e.g., aftermarket exhaust, intake), and elevation. This information is critical for customizing your kit for optimum performance.
- Review Instructions: Thoroughly read the step-by-step instructions and refer to the included carburetor schematic before beginning any work. Familiarize yourself with all components and procedures.
- 3. Carburetor Removal and Cleaning: Carefully remove the carburetor from your ATV. Perform a complete cleaning of the carburetor using the provided cleaning procedure. A clean carburetor is essential for proper jet kit function.
- 4. **Component Replacement:** Follow the detailed instructions to replace the stock main jets with the new main jets, install needle adjusters, and perform any necessary drill bit modifications (slide hole, idle mixture, slide spring) as specified for your carburetor type (e.g., CV carb).
- 5. **Reassembly:** Reassemble the carburetor carefully, ensuring all components are correctly seated and tightened to specifications. Reinstall the carburetor onto your ATV.
- 6. **Carburetor Synchronization:** If your ATV has multiple carburetors, use the provided instructions to build and utilize a carburetor synchronizer tool to ensure proper synchronization.

Warning: Running an engine with an improperly jetted carburetor, especially after intake or exhaust modifications, can lead to a lean condition, causing excessive heat, detonation, and severe engine damage. Ensure all steps are followed precisely.



This image displays the retail packaging for the 6 Sigma Jet Kit. The packaging highlights the kit's application across different powersports vehicles, including ATVs and motorcycles, and illustrates performance gains through a graph showing horsepower across the RPM range. It also lists key components included in the kit.

4. OPERATING AND TUNING

After installation, proper tuning is essential to maximize the benefits of your jet kit.

- Initial Start-up: Start the ATV and allow it to reach operating temperature.
- Throttle Response: Observe throttle response across all RPM ranges. The kit is designed to improve performance and responsiveness from idle to full throttle.
- Lean Condition Indicators: Listen for any exhaust popping or hesitation, which are indicators of a lean condition. The jet kit is designed to eliminate these issues.
- **Fine-Tuning:** Utilize the provided tuning techniques to make minor adjustments to the idle mixture screw and needle position to achieve optimal performance, smooth idle, and crisp throttle response.
- **Benefits:** A properly tuned jet kit will result in increased peak horsepower (typically 6%-8% with intake/exhaust modifications, 2-3% on stock engines), longer engine life due to cooler running temperatures, and improved performance across all RPM ranges. It also lowers exhaust gas temperatures (EGTs), which protects exhaust valves and engine components.

5. MAINTENANCE

Regular maintenance of your carburetor and jet kit components will ensure continued optimal performance.

- **Periodic Cleaning:** Refer to the included carburetor cleaning procedure and perform it periodically, especially if the ATV is stored for extended periods or operated in dusty conditions.
- **Jet Inspection:** During cleaning, inspect the main jets and needle for any signs of wear or obstruction. Replace components as necessary.
- Re-evaluation: If you make further modifications to your ATV's intake or exhaust system, it is

advisable to re-evaluate your jetting to ensure the carburetor remains properly tuned for the new setup.

6. TROUBLESHOOTING

If you encounter performance issues after installing the jet kit, consider the following:

- Exhaust Popping: If exhaust popping persists, it indicates a lean condition. Re-check your jet sizes, needle position, and idle mixture screw settings. Ensure there are no air leaks in the intake system.
- Poor Throttle Response: If throttle response is sluggish or inconsistent, verify that all carburetor components are clean and correctly installed. Adjust needle position and idle mixture as per tuning instructions.
- Engine Damage Risk: Persistent lean conditions can damage your engine. If you suspect a lean condition, cease operation and re-evaluate your installation and tuning.
- Support: If you are unable to resolve an issue, please contact 6 Sigma support for assistance.

7. Specifications

Product Name	6 Sigma Custom Carburetor Jet Kit
Model Number	SI0001196
Compatible Vehicle	Linhai LH260 ATV Quad 2x4 4x4
Kit Customization	Custom made to specific year, model, modifications, and elevation.
Key Components	Main Jets, Needle Adjusters, Nylon Spacers, Drill Bits, Carb Schematic, Tuning Guides

8. WARRANTY AND SUPPORT

6 Sigma stands behind the quality and performance of its products.

- 100% Satisfaction Guarantee: Upon installation, if you are not satisfied with the results, 6 Sigma offers a full refund.
- Full Support: Comprehensive support is available to assist with installation, tuning, and any questions you may have.
- **Contact:** For support or to initiate a return under the satisfaction guarantee, please email 6 Sigma directly through the Amazon platform, providing your order details and specific concerns.

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