

1968 ford c6 rebuild manual

1968 ford c6 rebuild manual serves as an essential resource for automotive enthusiasts, mechanics, and restorers looking to maintain or restore the iconic Ford C6 automatic transmission. This manual provides comprehensive technical guidance on disassembling, inspecting, repairing, and reassembling the transmission, ensuring optimal performance and longevity. Understanding the components and procedures detailed in the 1968 Ford C6 rebuild manual is crucial for achieving a successful rebuild that meets factory specifications. This article explores the transmission design, tools required, step-by-step rebuilding instructions, and troubleshooting tips. Additionally, it highlights maintenance practices and upgrades to enhance transmission durability. The following sections will guide readers through the entire rebuilding process with clear, authoritative information.

- Overview of the 1968 Ford C6 Transmission
- Tools and Equipment Needed for Rebuilding
- Step-by-Step Rebuilding Process
- Common Issues and Troubleshooting
- Maintenance and Upgrades

Overview of the 1968 Ford C6 Transmission

The 1968 Ford C6 transmission is a heavy-duty, three-speed automatic transmission widely used in Ford trucks, muscle cars, and various passenger vehicles. Known for its robustness and reliability, the C6 features a cast-iron case and a hydraulic control system that ensures smooth shifting and durability under high torque loads. The transmission includes key components such as the torque converter, planetary gear sets, clutch packs, bands, and valve body, all of which work together to provide efficient power delivery from the engine to the driveshaft.

Design and Specifications

The 1968 Ford C6 transmission utilizes a Simpson planetary gear set that provides three forward speeds and one reverse gear. It has a cast iron transmission case designed to withstand the stress of heavy loads. The unit operates with hydraulic pressure controlled by a valve body that directs fluid to various clutches and bands, facilitating gear shifts. The C6's torque converter is an integral part of its performance, offering

torque multiplication during acceleration.

Applications and Performance

This transmission was commonly installed in high-performance vehicles and trucks requiring durability and smooth shifting. Its ability to handle high torque makes it suitable for muscle cars like the Ford Mustang and heavy-duty trucks. The C6's reliability and ease of maintenance contribute to its popularity among rebuilders and restorers.

Tools and Equipment Needed for Rebuilding

Rebuilding a 1968 Ford C6 transmission requires a specific set of tools and equipment to ensure accuracy and prevent damage. Having the right tools allows for precise disassembly, inspection, and reassembly of transmission components according to factory specifications outlined in the rebuild manual.

Essential Tools List

The following tools are necessary for a successful rebuild of the 1968 Ford C6 transmission:

- Transmission jack or sturdy workbench for support
- Basic hand tools such as wrenches, sockets, and screwdrivers
- Snap ring pliers for removing and installing retaining rings
- Seal puller and installer tools
- Dial indicator for measuring end play and shaft runout
- Torque wrench calibrated to factory specifications
- Clutch spring compressor tool
- Cleaning supplies including solvent and brushes
- Service manual or rebuild manual for torque specs and assembly order

Safety and Workspace Considerations

It is important to work in a clean, well-organized environment to avoid contamination of transmission components. Proper safety gear such as gloves and eye protection should be worn to prevent injury during the rebuild process. Additionally, labeling parts and taking photographs during disassembly helps maintain correct reassembly order.

Step-by-Step Rebuilding Process

The 1968 Ford C6 rebuild manual provides detailed instructions to methodically disassemble, inspect, and reassemble the transmission. Following these steps ensures the transmission operates correctly and extends its service life.

Disassembly

Begin by thoroughly cleaning the exterior of the transmission to prevent dirt from entering internal parts. Drain the transmission fluid and carefully remove the transmission from the vehicle. The rebuild manual advises removing the valve body, torque converter, and clutch assemblies in a specific sequence. Each component should be inspected for wear, cracks, or damage.

Inspection and Measurement

All clutch packs, bands, seals, and gaskets must be examined for wear or deterioration. The manual provides measurement specifications for critical components such as clutch plate thickness, drum bore dimensions, and bearing clearances. Using a dial indicator and micrometer, verify that parts meet factory tolerances. Damaged or worn parts should be replaced with OEM or high-quality aftermarket components.

Reassembly

Reassembling the transmission requires careful attention to detail and adherence to torque specifications. The rebuild manual outlines the order for installing clutch packs, seals, valve body components, and the torque converter. Lubrication of internal parts with transmission fluid is essential during assembly to prevent dry starts. The manual also details band adjustment procedures and final end play measurements to ensure proper function.

Testing and Installation

After reassembly, bench testing the transmission with a specialized test stand is recommended to verify

correct hydraulic function and gear engagement. Once confirmed, reinstall the transmission in the vehicle using proper alignment and torque for all mounting bolts. Filling the transmission with the correct fluid type and performing a road test checks for leaks and shifting quality.

Common Issues and Troubleshooting

Despite its durability, the 1968 Ford C6 transmission can develop issues over time. The rebuild manual includes troubleshooting guidance to diagnose and remedy common problems encountered during operation or rebuilding.

Slipping Gears

Gear slippage often results from worn clutch packs or improperly adjusted bands. The manual recommends inspecting clutch plate thickness and replacing if below minimum specification. Band adjustment procedures should be followed precisely to eliminate slipping.

Harsh or Delayed Shifting

Valve body malfunctions, clogged passages, or weak springs can cause hard or delayed shifts. Cleaning the valve body and replacing worn springs or seals restores proper hydraulic pressure and shift timing. The rebuild manual provides detailed valve body diagrams and specifications for troubleshooting.

Leaks and Fluid Loss

Leaking seals or gaskets are common causes of transmission fluid loss. The manual advises replacing all seals during a rebuild and ensuring proper installation to prevent leaks. Inspecting the torque converter and case for cracks is also critical.

Maintenance and Upgrades

Proper maintenance extends the life of the 1968 Ford C6 transmission and enhances performance. The rebuild manual includes recommended maintenance intervals and procedures to keep the transmission in optimal condition.

Regular Fluid Changes

Changing transmission fluid at recommended intervals removes contaminants and maintains hydraulic efficiency. Using the correct type of fluid specified in the rebuild manual is essential to avoid damage to components.

Upgrading Components

Performance and durability upgrades can be incorporated during a rebuild. Options include hardened clutch plates, improved valve bodies, and high-performance bands. These upgrades enhance the transmission's ability to handle increased power and improve shift quality.

Routine Inspections

Periodic inspection of the transmission fluid, bands, and external components helps identify potential issues early. The rebuild manual outlines inspection criteria and signs of wear that warrant further attention.

Frequently Asked Questions

What is the best rebuild manual for a 1968 Ford C6 transmission?

The best rebuild manual for a 1968 Ford C6 transmission is typically the Chilton or Haynes manual specific to Ford automatic transmissions, or the Ford C6 Transmission Rebuild Manual by reputable publishers such as Tech Authority or TransGo. These manuals provide detailed step-by-step instructions, diagrams, and specifications.

Where can I find a free 1968 Ford C6 rebuild manual online?

Free 1968 Ford C6 rebuild manuals can sometimes be found on enthusiast forums, websites like Manualslib, or through community groups focused on classic Ford vehicles. However, for the most accurate and detailed information, purchasing a professional rebuild manual is recommended.

What tools are required for rebuilding a 1968 Ford C6 transmission?

Rebuilding a 1968 Ford C6 transmission generally requires basic hand tools such as screwdrivers, wrenches, snap ring pliers, a torque wrench, seal installers, and sometimes specialized tools like a clutch spring compressor or a dial indicator for measuring clearances.

Are there any common issues highlighted in the 1968 Ford C6 rebuild manual?

Common issues highlighted include worn clutch packs, faulty seals leading to leaks, damaged planetary gears, and issues with the valve body. The rebuild manual provides troubleshooting tips and guides on inspecting these components.

How long does it typically take to rebuild a 1968 Ford C6 transmission using the manual?

The rebuild time can vary depending on experience, but typically it takes between 6 to 12 hours for a thorough rebuild following the manual instructions, including disassembly, cleaning, inspection, replacement of parts, and reassembly.

Does the 1968 Ford C6 rebuild manual cover torque specifications?

Yes, a good rebuild manual will provide all necessary torque specifications for bolts and components to ensure proper assembly and function of the transmission.

Is it necessary to replace all seals and gaskets during a 1968 Ford C6 rebuild?

Yes, the rebuild manual strongly recommends replacing all seals and gaskets to prevent leaks and ensure reliable operation of the transmission after the rebuild.

Can I rebuild a 1968 Ford C6 transmission without a manual?

While it is possible to rebuild the transmission without a manual, it is not advisable. The manual provides critical information on clearances, torque specs, assembly order, and troubleshooting, which helps avoid mistakes and ensures a successful rebuild.

Where can I purchase a 1968 Ford C6 rebuild manual?

You can purchase a 1968 Ford C6 rebuild manual from online retailers like Amazon, eBay, or specialized automotive literature stores such as Summit Racing, JEGS, or directly from publishers like Tech Authority and TransGo.

Additional Resources

1. Ford C6 Transmission Rebuild Manual: Step-by-Step Guide

This comprehensive manual provides a detailed walkthrough of rebuilding the Ford C6 transmission. It

covers disassembly, inspection, replacement of worn parts, and reassembly with clear photographs and diagrams. Ideal for both beginners and experienced mechanics working on 1960s and 1970s Ford vehicles.

2. The Complete Ford C6 Transmission Overhaul

Focused specifically on the Ford C6, this guide offers expert tips on diagnosing common issues and performing a full rebuild. It includes torque specifications, tool recommendations, and troubleshooting advice for a smooth transmission rebuild process. Perfect for DIY enthusiasts restoring classic cars from the late 1960s.

3. Classic Ford Muscle Car Transmission Rebuilds

This book covers the restoration and rebuilding of transmissions commonly found in classic Ford muscle cars, including the C6. It combines historical context with practical rebuild techniques and highlights the importance of correct assembly for performance. A valuable resource for enthusiasts restoring their 1968 Ford or similar models.

4. Automatic Transmission Repair and Maintenance: Ford C6 Edition

Designed for both novice and professional mechanics, this book focuses on the maintenance and repair of the Ford C6 automatic transmission. It explains hydraulic systems, electronic controls, and mechanical components in a clear, accessible style. Readers will gain confidence in diagnosing and fixing transmission problems.

5. Rebuilding the Ford C6 Transmission: Tools, Tips, and Techniques

This guide emphasizes the tools and techniques needed for a successful Ford C6 transmission rebuild. It includes sections on selecting replacement parts, measuring clearances, and ensuring proper valve body function. The practical advice makes it easier to avoid common rebuilding mistakes.

6. 1967-1972 Ford C6 Transmission Service Manual

Covering a crucial period for the Ford C6 transmission, this service manual provides factory-level instructions for disassembly, inspection, and rebuild. It also includes detailed diagrams and specifications specific to models from 1967 to 1972, making it highly relevant for a 1968 rebuild project.

7. Ford C6 Transmission Performance Upgrades

For those looking to enhance the durability and performance of their rebuilt C6 transmission, this book explores aftermarket modifications and upgrades. It discusses improvements in clutch packs, shift kits, and torque converters tailored for classic Ford vehicles. A great companion for a rebuild aimed at both reliability and power.

8. Manual Transmission and Automatic Transmission Rebuild Techniques

Although broader in scope, this book dedicates a significant portion to automatic transmissions like the Ford C6. It explains universal rebuild principles while offering specific advice for Ford models, blending theory with hands-on instruction. This resource helps readers understand transmission mechanics deeply.

9. Restoring Classic Ford Vehicles: Transmission and Drivetrain Essentials

This restoration-focused book includes detailed chapters on the Ford C6 transmission as part of the drivetrain system. It balances historical information with practical rebuilding steps, emphasizing authenticity and performance. Ideal for classic car restorers working on 1968 Ford models seeking meticulous guidance.

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